



FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES
COMMISSIONER ADAM H. PUTNAM

August 17, 2015

Paul and Kathleen Still
14167 SW 101st Avenue
Starke, Florida 32091

SUBJECT: Section 373.407, F.S. AMENDED ORDER – Paul Still

Dear Mr. Still:

Per your request, enclosed please find the amended order on the subject referral. In short, it is the Department's opinion that the operation in question is engaged in production agriculture and the two ditch plugs in wetlands are not exempt under subsection 373.406(2), Florida Statutes.

If you have any questions as you review the document, please feel free to contact me or Bill Bartnick at 850-617-1700.

Sincerely,

Bill Bartnick for

Darrell Smith, Acting Director
Office of Agricultural Water Policy

Enclosure

cc: Patrick Webster (SRWMD)
Lauren Brothers
Jeff Vowell

**FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES
Office of Agricultural Water Policy
Mayo Building
407 South Calhoun Street
Tallahassee, Florida 32399**

**Binding Determination
Florida Statute 373.406(2); 373.407
Paul Still Property– Bradford County, Florida**

FDACS Clerk No. A92714

AMENDED ORDER – This order corrects certain factual matters contained in the original binding determination so that it is now technically accurate.

Introduction:

Pursuant to Section 373.407, F.S., a water management district or landowner may request that the Florida Department of Agriculture and Consumer Services (FDACS) make a binding determination as to whether an existing or proposed agricultural activity qualifies for a permitting exemption under Section 373.406(2), F.S. However, in order for FDACS to conduct a binding determination, all of the following conditions must exist:

- a. There must be a dispute between the landowner and the water management district as to the applicability of the exemption.
- b. The activities in question must be on lands classified as agricultural by the county property appraiser pursuant to Section 193.461, F.S.
- c. The activities in question have not been previously authorized by an environmental resource permit (ERP) or a management and storage of surface water (MSSW) permit issued pursuant to Part IV, Chapter 373, F.S., or by a dredge and fill permit issued pursuant to Chapter 403, F.S.

Landowner, Paul Still, has requested that FDACS conduct a binding determination on his property, and the conditions described above are in place.

Background:

The site consists of 118 acres, located within Section 33, Township 6 South, Range 21 East, in Bradford County, approximately 6 miles southwest of Starke, Florida. The property is classified as agriculture pursuant to 2014 Bradford County Property Appraiser information. The Stills purchased the property in 1996 and have resided there ever since. Reportedly, Mr. Still installed three earthen ditch plugs (two of which were in wetlands) around 2011. Mr. Still has expressly stated that the purpose of the ditch plugs "was to rehydrate wetlands that had been impacted by past drainage systems and activities."

The Suwannee River Water Management District (District) met with Mr. Still at his property on November 26, 2014, to discuss the alleged impacts resulting from the ditch plugs; and subsequently sent him written correspondence on April 24, and on May 21, 2015. Both letters alleged that the ditch plugs had resulted in unauthorized impacts to

surface waters, and that the plugs were not exempt pursuant to Section 373.406(2), F.S. Mr. Still disagreed with the District's decision, evidenced by a number of emails that were exchanged between the two parties.

The District informed Mr. Still that he may qualify for the exemption in Section 373.406(9), F.S., which provides:

Implementation of measures having the primary purpose of environmental restoration or water quality improvement on agricultural lands are exempt from regulation under this part where these measures or practices are determined by the district or department, on a case-by-case basis, to have minimal or insignificant individual and cumulative adverse impact on the water resources of the state.

Section 373.406(9), F.S., has been used by the South Florida Water Management District for nearly ten years to authorize the installation of ditch plugs and other commercial water control structures designed to retain surface water. This statutory exemption serves the express purpose of providing a means for hydrologic restoration of wetlands, and would appear to be available and appropriate under these circumstances. However, FDACS has no authority to consider or issue binding determinations under any exemption language other than Section 373.406(2), F.S.

Mr. Still acknowledges the availability of the exemption under Section 373.406(9), F.S., but still believes he is entitled to an exemption under Section 373.406(2), F.S. In a June 24, 2015, email to FDACS, Mr. Still stated that, "While F.S. 373.406(9) is available for landowners to exempt ditch plugs from permitting requirements, use of F.S. 373.406(9) requires a property owner to allow Water Management District staff to visit the property. My experience has been that Water Management staff can take advantage of this visit to observe and potentially seek enforcement actions for issues not related to the ditch plugs." Additionally, Mr. Still has stated in a May 18, 2015, email to the District that he is seeking a legal determination under Section 373.406(2), F.S, because he has been "advocating the use of ditch plugs as a method to hydrate wetlands and enhance aquifer recharge for a number of years."

The District has advised FDACS that it has sufficient information to verify an exemption under Section 373.406(9), F.S., and does not need to conduct any additional site visits or be provided any further documentation to grant this exemption. All that remains for Mr. Still to do is submit the application fee pursuant to Rule 40B-1.706, F.A.C., and the District will exempt the ditch plugs in accordance with Section 373.406(9), F.S.

On June 5, 2015, FDACS received a request for a binding determination from Mr. Still. The District provided additional information on June 11, 2015.

Site Inspection Findings:

On June 18, 2015, a site inspection was performed by Jeff Vowell, Andy Lamborn and Jeremy Lawson with the FDACS-Florida Forest Service, accompanied by Mr. Paul Still.

During the site visit, one of the ditch plugs was observed and discussed with Mr. Still. No photos were taken as Mr. Still provided these as part of his determination request.

At the time of the site inspection, the operation consisted of a relatively small tree farm in Bradford County. Based on review of aerial photographs provided by the District, aerial imagery obtained by FDACS, and review of National Wetlands Inventory data, staff confirmed that two of the ditch plugs were constructed in areas that are considered jurisdictional wetlands. The other ditch plug is reportedly several yards landward of the wetland boundary.

Application of Statutory Criteria:

Pursuant to Section 373.406(2) F.S., all of the following criteria must be met in order for the permitting exemption to apply.

- (a) *"Is the landowner engaged in the occupation of agriculture, silviculture, floriculture, or horticulture?"*

YES. FDACS-Florida Forest Service finds that Mr. Paul Still is engaged in the occupation of silviculture.

- (b) *"Are the alterations (or proposed alterations) to the topography of the land for purposes consistent with the normal and customary practice of such occupation in the area?"*

NO. FDACS-Florida Forest Service finds that the construction of the ditch plugs are not a normal and customary practice for silviculture being conducted in the area. Normal and customary silviculture would typically not include the plugging of existing ditches. In fact, silviculture in Florida often necessitates some level of drainage to make wetter sites more accessible and therefore more productive. Based on his experience, Mr. Lamborn explained that "conservation of soils and water resources", as the main component of a Stewardship Plan is not customary. Moreover, the 2008 Silviculture Best Management Practices manual does not list ditch plugs installed in wetlands or in large ditches connected to wetlands, as a viable practice. The reference to ditch plugs in the 2008 Silviculture Best Management Practices manual is for "road-side" ditches and has to do with the entrapment and dispersion of sediment and the reduction of ditch-flow velocity, not hydrologic restoration.

- (c) *"Are the alterations (or proposed alterations) for the sole or predominant purpose of impeding or diverting the flow of surface waters or adversely impacting wetlands?"*

Because the exemption in Section 373.406(2), F.S., requires an affirmative answer to all these criteria, and we have already found that the alterations are

not consistent with normal and customary practice of such occupation in the area (see (b) above), there is no need to address this issue.

Conclusion:

Based upon the aforementioned facts, site-specific characteristics, historical land use, and documented industry practices, FDACS has determined that the wetland impacts resulting from the construction of ditch plugs on the Still property do not qualify for an exemption under Section 373.406(2), F.S. The appropriate and available exemption is provided in Section 373.406(9), F.S. The District has advised that it will exempt the ditch plugs under Section 373.406(9), F.S., upon Mr. Still simply paying the application fee to complete the process.

Nothing herein relieves the landowner from applying for and obtaining any applicable federal, state, or local authorization.

A determination by FDACS that an activity is not exempt from permitting does not preclude the landowner and the water management district from agreeing to modifications to the activity that would render it exempt.

Notice of Rights:

If you wish to contest this action, you have the right to request an administrative hearing to be conducted in accordance with Sections 120.569 and 120.57, Florida Statutes, and to be represented by counsel or other qualified representative. Mediation is not available. Your request for hearing must contain:

1. Your name, address, and telephone number, and facsimile number (if any).
2. The name, address, and telephone number, and facsimile number of your attorney or qualified representative (if any) upon whom service of pleadings and other papers shall be made.
3. A statement that you are requesting an administrative hearing and dispute the material facts alleged by FDACS, in which case you must identify the material facts that are in dispute (formal hearing); or that you request an administrative hearing and that you do not dispute the facts alleged by FDACS (informal hearing).
4. A statement of when (date) you received this Notice and the file number of this Notice.

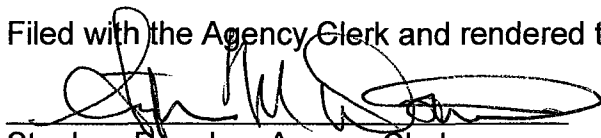
Your request for a hearing must be received at: The Office of Agricultural Water Policy, Mayo Building, 407 South Calhoun St. MS-E1, Tallahassee, Florida 32399, within twenty-one (21) days of receipt of this Notice. If you fail to request an administrative hearing within the twenty-one (21) day deadline you waive your right to a hearing and the binding determination will become final agency action upon filing with the agency clerk.

Any party to these proceedings adversely affected by this Final Order is entitled to seek judicial review of this Final Order pursuant to Section 120.68, Florida Statutes, and Rule 9.110, Florida Rules of Appellate Procedures. Judicial review proceedings must be instituted by filing a Notice of Appeal with the Department's Agency Clerk, 407 South Calhoun Street, Suite 509, Tallahassee, Florida, 32399-0800, within thirty (30) days of rendition of this order. A copy of the Notice of Appeal must be filed with the Clerk of the appropriate District Court of Appeal accompanied by any filing fees prescribed by law.

Supporting Documents:

- (1) FDACS 2008 Silviculture Best Management Practices
- (2) Aerial Photography
- (3) USDA Soil Survey, Bradford County, Florida
- (4) 2015 Bradford County Property Appraiser Information Card
- (5) SRWMD Additional Information
- (6) National Wetland Inventory Map
- (7) Florida Forest Service Stewardship Management Plan

Filed with the Agency Clerk and rendered this 14th day of September, 2015.


Stephen Donelan, Agency Clerk



**SUWANNEE
RIVER
WATER
MANAGEMENT
DISTRICT**

9225 CR 49 • LIVE OAK, FLORIDA 32060 • TELEPHONE 386/362-1001 • 800/226-1066 • FAX 386/362-1056
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April 24, 2015

Paul and Kathleen Still
14167 SW 101st Avenue
Starke, FL 32091

Subject: Request for Additional Information, ERP-007-222670-1, Verification of
Unauthorized Ditch Plug Installation, Bradford County

Dear Mr. & Mrs. Still:

As we have discussed through previous correspondences, you presently have installed certain "ditch plugs" on your property which have the effect of impeding the flow of surface water. This impeding of water is not allowed without an environmental resource permit as provided in Section 373.413, Florida Statutes and rule 40B-4.1040, Florida Administrative Code (FAC).

However, we have advised you that we believe that you may qualify for the exemption provided in Section 373.406(9), Florida Statutes. This statute provides:

Implementation of measures having the primary purpose of environmental restoration or water quality improvement on agricultural lands are exempt from regulation under this part where these measures or practices are determined by the district or department, on a case-by-case basis, to have minimal or insignificant individual and cumulative adverse impact on the water resources of the state. The district or department shall provide written notification as to whether the proposed activity qualifies for the exemption within 30 days after receipt of a written notice requesting the exemption. No activity under this exemption shall commence until the district or department has provided written notice that the activity qualifies for the exemption.

Section 373.406(9), Florida Statutes (Emphasis supplied)

As we have discussed, for you to utilize this exemption the District must provide you with written notice that the activity qualifies for the exemption as set out in the last sentence of the above referenced statute. For the District to undertake this evaluation and, if applicable, provide such written notice, per rule 40B-1.706, FAC, you must pay the \$100 application fee.

In response, you have asserted that you disagree with the above, and that you believe you qualify for the exemption provided under Section 373.406(2), Florida Statutes. This statute provides:

DON QUINCEY, Chairman
Chiefland, Florida

ALPHONAS ALEXANDER, Vice Chairman
Madison, Florida

RAY CURTIS, Secretary/Treasurer
Perry, Florida

KEVIN BROWN
Alachua, Florida

GEORGE COLE
Monticello, Florida

VIRGINIA H. JOHNS
Alachua, Florida

GARY F. JONES
Old Town, Florida

VIRGINIA SANCHEZ
Old Town, Florida

GUY N. WILLIAMS
Lake City, Florida

ANN B. SHORTELL, Ph.D.
Executive Director
Gainesville, Florida



SUWANNEE RIVER WATER MANAGEMENT DISTRICT

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Notwithstanding s. 403.927, nothing herein, or in any rule, regulation, or order adopted pursuant hereto, shall be construed to affect the right of any person engaged in the occupation of agriculture, silviculture, floriculture, or horticulture to alter the topography of any tract of land, including, but not limited to, activities that may impede or divert the flow of surface waters or adversely impact wetlands, for purposes consistent with the normal and customary practice of such occupation in the area. However, such alteration or activity may not be for the sole or predominant purpose of impeding or diverting the flow of surface waters or adversely impacting wetlands. This exemption applies to lands classified as agricultural pursuant to s. 193.461 and to activities requiring an environmental resource permit pursuant to this part. This exemption does not apply to any activities previously authorized by an environmental resource permit or a management and storage of surface water permit issued pursuant to this part or a dredge and fill permit issued pursuant to chapter 403. This exemption has retroactive application to July 1, 1984.

Section 373.406(2), Florida Statutes (Emphasis supplied)

As we have previously advised, you do not fall under the exemption set out in Section 373.406(2), Florida Statutes, because the predominant purpose of the "ditch plugs" is to impede or divert the flow of surface water. You disagree with this as stated in Mr. Still's email to me dated March 24, 2015, in which Mr. Still states:

The predominant purpose is not to impede or divert flow of surface water. or adversely impact wetlands. The purpose is to rehydrate wetlands to a pre drainage level to allow the growth of wetland plants including cypress. The surface flow has not been diverted. Surface flow is in the same drainage ditch. Any impeding is flow simply lets water stay temporary in pre-drainage wetlands so it is not a predominant purpose.

However, your email shows that the predominant effect of the ditch blocks is to impede the flow of surface water. While your purpose in impeding the flow of surface water may be because you believe it will "re-hydrate wetlands", the effect of your ditch blocks is not to impede "ground water" or "rain water" or any form of water other than "surface water." Therefore the "ditch blocks" do not fall under the exemption set out in Section 373.406(2), Florida Statutes. *See, A. Duda and Sons, Inc. v. St. Johns River Water Management District*, 17 So.3d 738, 743 (Fla. 5th DCA 2009) (Finding that in the context of Section 373.406(2), Florida Statutes, the term "purpose" means the action's objective effect or function not the actor's subjective intent.)

DON QUINCEY, Chairman
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If you wish the District to evaluate whether your "ditch plugs" meet the criteria for the exemption set out in Section 373.406(9), Florida Statutes, you should submit the necessary permit fee to the District as soon as possible. If you have not done so within 14 days of receipt of this letter, we will assume that you do not intend to make such a request and will commence enforcement proceedings.

Please contact me or Mike Fuller at 386.362.1001, toll free at 800.226.1066 (in Florida only) or via email at pijw@srwmd.org if you have any questions. Thank you for your prompt attention to this matter.

Sincerely,

A handwritten signature in black ink that reads "Patrick Webster".

Patrick Webster, PE, CFM
Senior Professional Engineer

PW/tm

DON QUINCEY, Chairman
Chiefland, Florida

ALPHONAS ALEXANDER, Vice Chairman
Madison, Florida

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U.S. Fish and Wildlife Service

National Wetlands Inventory

Still Property

Aug 10, 2015

Wetlands

-  Freshwater Emergent
-  Freshwater Forested/Shrub
-  Estuarine and Marine Deepwater
-  Estuarine and Marine
-  Freshwater Pond
-  Lake
-  Riverine
-  Other



User Remarks:

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

STEWARDSHIP FOREST MANAGEMENT PLAN



Paul Still
Bradford Co.
UF Faculty member
Ref.

For
Paul Still
14167 SW 101st Ave.
Starke, FL 32091

Plan Written by:
Andy Lamborn
Bradford County Forester
June 5, 2015



Florida Department of Agriculture & Consumer Services
Adam H. Putnam Commissioner

Location

The Still property is located in Bradford County, Florida and covers 118 acres. From New River Forestry Station, head east on SR 100 and go approximately 2 miles to CR 225. Head south on CR 225 approximately 3 miles to their driveway on the left at 14167 SW 101st Ave. The property is located in Section 33, Township 6 South, Range 21 East, and is comprised of planted pine, planted cypress, natural mixed hardwood and pine, residential, and cypress swamp.

Management Objectives

The primary objective of land management on this property is soil & water conservation. A secondary objective is to establish healthy and economically viable stands of timber. Other objectives include the enhancement of aesthetics, outdoor recreation opportunities such as wildlife viewing, hiking, and canoeing. All management recommendations will be compatible with good soil and water conservation.

only one Andy has seen in 10 years.

Timber

Pine stands on this property can be divided into 2 groups, planted pines and naturally regenerated. Pre-merchantable areas will be monitored to time thinning that will help maintain a fast growth rate. The landowners target rotation is 30 years with a thinning at age 14-16.

All pine stands will be protected from wildfire by adequate annual firelines. Prescribed burning will be used to improve wildlife habitat, control hardwood competition, and reduce potential damage from wildfire.

Aesthetics

The aesthetic quality of the property is already good. To improve this quality of aesthetics it is important to control understory vegetation in the planted timber stands with prescribed fire or rotational mowing. The different community types within the property provide diversity within the tract while improving available wildlife habitat and the overall aesthetic value. Using prescribed fire in the pine plantations will open up the forest and create a more park-like appearance improving access and stimulating a diverse herbaceous ground cover.

Recreation

This property offers a number of recreational opportunities such as horseback riding, canoeing, wildlife observation, and fishing. Planting trees and shrubs, creating wildlife openings, maintaining valuable wetlands, and using prescribed fire will provide better opportunities for these recreational uses. Firebreaks or other mowed trails can offer easier foot access, or ATV trails around the property.

Wildlife Management

To improve the overall habitat for wildlife, the landowners should have a good mixture of hardwood areas, pines (preferably different age plantations) and at least 5% of their total area in permanent openings. By having a diverse mix, you are providing good wildlife habitat, which should increase the value of the land for the landowners and future hunting leases.

Active management for wildlife will be accomplished through routine forestry practices conducted on the planted pines. Management practices that will improve wildlife habitat include thinning pine plantations, longer rotations of the pines geared toward growing chip-n-saw and saw timber, rotational mowing programs, prescribed burnings and fire line construction (which will serve as travel corridors and transitional areas). By combining all of these activities, a more diverse habitat is created which will benefit wildlife as well as the landowner.

Note: Your timber management practices will greatly influence the quality of wildlife habitat available on your property. Wildlife and timber management can co-exist to produce a viable economic return for the landowner, as well as, provide wildlife habitat. Preferred tree spacing, in monoculture pine plantations, compatible with both timber and wildlife is 6x12 spacing approximately 600 trees per acre. Wider tree spacing allows sunlight to reach the forest floor longer in the rotation. Likewise, longer rotations on pine plantations, aimed at producing chip-and-saw and saw timber (i.e., 30 years or greater), allow for multiple thinnings that open the canopy and allow sunlight to reach the ground for herbaceous vegetation growth. Prescribed burning and rotational mowing (where applicable) are other tools that compliment both timber and wildlife and should be conducted in 2-3 year rotations.

Firebreaks can serve many purposes if properly maintained. They will 1) provide protection to the residence and the planted pines 2) provide access to the property from the perimeter, 3) will help control prescribed burnings, and 4) will also provide transitional zones that are very important to wildlife species. The edges of firebreaks can provide excellent nesting and foraging habitat and will also serve as travel corridors for wildlife. Firebreaks should be at least 15 to 20 feet wide and follow the natural contour of the land to the fullest extent possible.

Maintenance of the lines will consist of discing during the winter months for promotion of wildlife-friendly herbaceous vegetation and to maintain access throughout the property. Discing during the winter months, usually November through February, will promote the presence of native weeds and legumes such as partridge pea, beggar weed, and common ragweed, all of which provide a valuable seed source.

Prescribed burning effects for wildlife include:

1. Recycles nutrients for better plant uptake and growth which in turn makes the plants more palatable and nutritional value for wildlife.
2. Stimulates growth of herbaceous vegetation, shrubs and grasses.
3. Increase in insect production after a fire which provides food for turkey and quail broods and songbirds, such as bluebirds and flycatchers.
4. Stimulates germination of legumes by breaking down hard seed coats.
5. Decrease in diseased trees.
6. Creates snags, which provide homes for cavity nesting and roosting species such as woodpeckers and owls.

For wildlife, the tract to be burned should be divided into burn units. Units should be burned in different years so that there is always adjacent cover for ground nesting species such as turkey and quail. Areas that contain specific wildlife habitat such as snags, thickets, old home sites, should be protected from fire. Ultimately, a prescribed burn that leaves "unburned" patches, also called a "mosaic" burn, is what you should strive for when using a prescribed burn for wildlife habitat improvement. Frequency is also important and will dictate what vegetative species are present. Burning in a 1-2 year regime will stimulate legume and grass production, beneficial to quail and turkey but it suppresses fruit production from briars, shrubs and trees. Delaying burning to every 2-4 years will stimulate soft mast production. Your particular site will also determine your burning schedule.

An important concept in managing for wildlife on a particular property is the realization that wildlife prefers many different types of vegetation to be present, i.e., diversity. Hence, transition zones can be an important component in a management regime. Transition zones are areas where 2 or more habitats converge, in which the vegetative cover is a mix of the adjacent habitats. It is essentially a "separate" habitat type between 2 or more distinct habitats. Transition zones are also called edges or ecotones. They can also be very important travel corridors for wildlife, especially white-tailed deer.

Where possible, transition zones can be established and maintained along the edges of the hardwood areas. It is recommended that transition zones be approximately 20'-30' in width. Transition zones should be maintained every 2-3 years by mowing, chopping or burning. Vegetation within the zones should be disturbed at least every 3 years, if possible. If areas are left undisturbed for any longer, hardwoods become unmanageable, the area becomes too thick, and consequently, loses its wildlife value.

Transition areas between the hardwood areas and planted areas could be optimal locations for permanent wildlife openings, either in native vegetation or supplemental plantings. Where 2 or more different habitat types converge (or the transition zone), a mixture of vegetative types from all habitats is present, thereby increasing the overall diversity of the location. One of the keys to providing "good" habitat for a variety of wildlife species is diversification of the vegetative composition.

Planting non-native food crops for wildlife is an option, although if an overall habitat management scheme is adopted on the property, the landowners would probably not have to provide food for wildlife. At this point, food plots would only serve as a "congregating" area for hunting. From the initial land reconnaissance, many native food sources were observed (wild grapes, greenbrier, mast producing oaks, and blackberry) and as openings are placed and managed throughout the tract, more herbaceous vegetation would become available as browse. Appendix material contains an excellent discussion of food plots for deer that should be read before planting is initiated.

Invasive Exotic Plant Management

There were no invasive exotic plant species found on the Still property during the Tree Farm inspection. However, neighboring properties have Chinese tallow tree (*Sapium sebiferum*) and Japanese climbing fern (*Lygodium japonicum*) that should be eradicated as they spread on to your property.

Chinese tallow tree is a deciduous tree growing to 60 feet tall that has heart shaped leaves turning scarlet in fall, long drooping flowers in spring and bundles of white waxy popcorn like seeds in the fall and winter. Burning results in abundant seedlings. Chinese tallow is adaptable to growing in most soils from moderately wet to dry and saline to fresh. It is now widespread in Florida along roadside ditches, coastal areas, and streams, often forming dense thickets. The rapid growth rate and spread of this species represents a significant threat to Florida's environment, so possession of Chinese tallow with the intent to sell, transport, or plant is illegal in Florida. Recommend control for large trees is to make stem injections using Arsenal AC, Garlon 3A or Pathfinder 2 in dilutions any time except March and April. For saplings apply Garlon 4 as a 20% solution in commercially available basal oil, diesel fuel, or kerosene (2.5 quarts per 3 gallon mix).

Japanese climbing fern is a climbing and twining, perennial viney fern that can grow to 90 feet and forms mats over shrubs and trees. Moreover, without adequate control this vine shades out native plants and cause your pine trees to lose growth. Recommend control procedure is to thoroughly wet all leaves with one of the following herbicides in water with a surfactant between July and October. 1) Arsenal AC as a 1% solution (4 ounces per gallon mix) 2) Garlon 3A, Garlon 4 as a 2% solution (8 ounces per 3 gallon mix) 3) Escort at 1 to 2 ounces per acre in water (0.3 to 0.6 dry ounces per 3 gallon mix).

Soil & Water

Conservation of soil and water resources is important for all landowners. Fortunately the topography of this property is nearly level which helps reduce potential erosion problems. Areas of concern during site preparation are the perimeters of wetlands that border the timber stands, drainage canals, and roads. Road ditches and site preparation activities such as bedding and chopping can channel water, leading to erosion and silting problems in adjacent wetlands and water bodies. Harrowing loosens the soil allowing it to be washed away more easily during heavy rain events. To mitigate the potential for problems all site prep activities and road maintenance should be conducted in accordance with Florida's Silvicultural Best Management Practices (BMP). A copy of the BMP manual is available from your local Florida Forest Service County Forester free of charge.

Seven different soil types occur on this property, most of them are very similar in composition, drainage, and slope. Soils that are nearly level and poorly drained indicate that water movement is very slow. Erosion problems are usually minimal due to the lack of energy unless significant site disturbance has occurred. Below is a Table 1 showing all soil types found on the property.

Table 1. Soil types and characteristics are described below.

Soil Type	Vegetative Community	Slope	Drainage	Productivity (Site Index)*
4 – Mascotte Sand	Flatwoods	0 – 2%	Poorly drained	85– Slash Pine
6 – Plummer-Plummer, wet, sands	Flatwoods	0 – 2%	Poorly drained	85– Slash Pine wet areas 75– Pondcypress
7 – Surrency and Pantego soils, depressional	Hardwood swamps	0 – 2%	Very poorly drained	75– Pondcypress 73– Pond Pine
9 – Starke mucky fine sand, frequently flooded	Hardwood swamps	< 2%	Very poorly drained	108- Baldcypress
12 – Sapelo Sand	Flatwoods	Nearly level	Poorly drained	85– Slash Pine
23 – Pelham-Pelham, wet, fine sands	Flatwoods	Nearly level	Poorly drained	90– Slash Pine 86– Loblolly Pine 70– Longleaf Pine
37 – Pamlico and Croatan mucks, frequently flooded	Flood plains	< 1%	Very poorly drained	108– Baldcypress

*average tree height at 50 years of

STAND MAP SUMMARY

Stand	Description	Acres	% of Total Acreage
1	Planted Longleaf Pine 1996	12.1	10
2	Natural Mixed Hardwood and Pine	28.9	25
3	Planted Cypress 1995	17.9	15
3a	Natural Cypress	15.8	13
4	Natural Mixed Pine and Hardwood	24.5	21
5a	Cypress and Swamp Hardwood Bay	3.6	3
5b	Cypress and Swamp Hardwood Bay	7.5	6
Home Site		3.8	3
ROW	Power Line Right-of-Way	3.8	3
TOTAL		118	100

Stand Specific Management Recommendations

Stand 1- Longleaf Pine Plantation (Planted 1996)

Stand 1 was planted 17 years ago with longleaf pine and covers 12 acres total. After the stand was planted in 1996 it was interplanted with slash pine four times between 1998 and 2002 and has an approximate trees per acre of 360. This stand includes three experimental plots that have received different management treatments post planting.

Plot 8 has received only a 2006 cut stem herbicide treatment.

Plot 9 has been mown with the DR brush mower and received a cut stem herbicide treatment in 2006.

Plot 10 has had slash pines interplanted in areas of longleaf mortality during 1998-2002, has been mown with the DR brush mower and received a cut stem herbicide treatment in 2006.

Herbicide treatments were primarily applied to wax myrtle. Other treated species include gallberry, sweetgum and bays. Herbicide formulations include 20% Arsenal AC, 20% Garlon 4, 25% Garlon 4, 25% Garlon 3A, 50% Accord, 50% Habitat, 100% BrushBGon Poison Ivy Killer, 100% RoundUp Poison Ivy Killer and a tank mix of 10% Garlon 4 plus 10% Arsenal AC.

Future management activities should focus on thinning, fire protection, reducing understory vegetation, and using prescribed fire. Thinning is a management tool used to reduce stand density giving the residual trees more nutrients, water, and space to grow. I recommend using a third or fourth row with select thinning technique. This will reduce the stand density by 30 to 40 percent and allow for removal of the diseased and suppressed trees. The number of trees removed is usually based on the basal area in the stand. Basal area (BA) refers to the cross sectional surface area of all the trees expressed in square feet per acre. The exact year for the thinning harvest will depend on several variables, such as the cash flow requirements of the landowner, the pulpwood market prices, and the weather conditions. Thinning will open the stand sufficiently for wildlife while releasing the remaining timber to grow into more valuable products. Any harvest operation is likely to adversely impact aesthetics in the short term, but the appearance of the stand should recover in a year or two. The end result will be a healthy and aesthetically appealing forest. Furthermore, a thinning crew will run over some of the understory vegetation and open up the canopy making it easier to start using prescribed fire.

This stand should be thinned in the next 1 to 2 years which should help produce high quality chip-n-saw and sawtimber products for future harvests and revenue. This stand may be thinned several times before the final harvest to further extend the rotation age. Again, this will depend on the factors such as the cash flow requirements of the landowner, the pulpwood market prices, and weather conditions.

A controlled burning program should be installed a year after the first thinning. This will improve the wildlife habitat and greatly reduce the risk of a damaging wildfire by eliminating the understory vegetation. After the first burn is completed, it should be burned every three to four years.

The best way to protect your stands from fire is to plow and maintain firebreaks on the property. Firebreaks can serve many purposes if properly maintained. They will 1) provide protection to the planted pines 2) provide access to the property from the perimeter, 3) will help control future prescribed burnings, and 4) will also provide transitional zones that are very important to wildlife species. The edges of firebreaks can provide excellent nesting and foraging habitat and will also serve as travel corridors for wildlife. Firelines should be at least 15 to 20 feet wide and follow the natural contour of the land to the fullest extent possible. After the fire lines have been plowed, they should be reworked with harrows. This will level the ground again and help prevent the breaks from channeling water into the wetlands. Once installed, the lines should then be reworked at least every two years. Harrowing during the winter months will provide the most benefit for wildlife by promoting the growth of native forbs and grasses.

Stand 2 – Natural Mixed Hardwood and Pine (29 acres)

This stand is a mixed hardwood stand dominated by mature live, laurel and water oaks with scattered slash pines. Within this stand four experimental plots have been established by removing the overstory hardwoods to create openings which have been planted to pines. Trees killed by insects in 2004 and wind damaged in 2005 were felled and sawn into lumber on site. Additionally part of this stand was mowed in 2005-06 to release planted pines and reduce fuel loads.

Plot 4 was mowed with a Brown tree cutter and large oaks felled with a chainsaw in 2001. Debris was stacked in brush piles to create wildlife habitat. Slash pines were planted in January 2002 and some of these were planted into tilled strips.

Plot 5 was mowed with a Brown tree cutter and large oaks felled with a chainsaw in 2001. Debris was stacked in brush piles to create wildlife habitat. Slash and longleaf pines were planted in January 2002.

Plot 6 was partially mowed with a Brown tree cutter and large oaks, red maple and wax myrtle felled with a chainsaw in 2001. Debris was stacked in brush piles to create wildlife habitat. Slash pines were planted in January 2002.

Plot 7 was mowed with a Brown tree cutter and large oaks girdled in 2001. Debris was stacked in brush piles to create wildlife habitat. Slash pines were planted in January 2002. A cut stem herbicide treatment was applied in 2006.

Herbicide treatments were primarily applied to sweetgum. Other treated species include gallberry and wax myrtle. Herbicide formulations include 20% arsenal AC, 20% Garlon 4, 20% Garlon 3A, 25% Arsenal AC, 100% BrushBGon Poison Ivy Killer, 100%

Roundup Poison Ivy Killer and a tank mix of 10% Garlon 4 plus 10% Arsenal AC.

Future management will require the use of prescribed fire or additional herbicide treatments and mowing in order to maintain access to the stand, maintain a diverse herbaceous groundcover for wildlife habitat, reduce fuels and reduce woody competition. To prevent the development of a woody midstory, prescribed fire or mowing will be required at two to three year intervals. As the planted areas mature and the canopy closes the frequency of treatments may be reduced as sunlight penetration is reduced. In the mature portions of the stand intermediate and suppressed trees can be selectively removed by use of the tree cutter, chainsaw or herbicides to open up the stand and release the highest quality trees from competition. These timber stand improvement activities will help improve mast production and improved growth rates in the best quality trees while improving the stand aesthetically with a more open park-like appearance. Some shrubby thickets should be retained to provide cover and foraging habitat for species that prefer shrub cover.

Dormant season (winter) prescribed fire should be used in this stand every 2 to 3 years as time and weather permit. Fire reduces the amount of herbaceous and woody vegetation while promoting an understory of succulent grasses that are beneficial to wildlife. Using prescribed fire also reduces the fuel loads that can lead to damaging wildfires.

Stand 3 – Planted Cypress 1995 (18 acres)

This stand of planted cypress is in an area that was altered hydrologically at some point in the past by installing low levees and water control structures presumably for rice cultivation. While the levees remain the water control structures are in disrepair and currently water levels cannot be manipulated.

This stand is experimental Plot 11 and received a cut stem herbicide treatment in 2005/2006. Herbicide treatments were primarily applied to red maple. Herbicide formulations include 20% Arsenal AC, 20% Garlon 4, 20% Garlon 3A, 25% Arsenal AC, 50% Arsenal AC, 50% Accord, 50% Habitat, 100% BrushB Gon Poison Ivy Killer, 100% Roundup Poison Ivy Killer and a tank mix of 10% Garlon 4 plus 10% Arsenal AC.

Future management of this stand may include additional herbicide treatments to control competing vegetation. An alternative method of controlling vegetation is through the management of water levels within the impoundment. This alternative would require restoring water control structures and any damaged parts of the levee. Any project involving these wetland areas will require consultation with the Suwannee River Water Management District.

Wildlife habitat can be improved by manipulating water levels in order to influence the vegetation within the impoundment and to use water levels to manage wildlife use of the resources within the impoundment. Flooding the impoundment during early spring and gradually drawing it down through the summer months will inhibit the establishment of woody species and promote a community of rushes, sedges and aquatic forbs that provide excellent forage and cover for many species. Reflooding in fall and drawing down over

winter will allow storage of the seeds and tubers produce over the summer and make them gradually available over the winter months to wintering waterfowl. The gradual drawdowns will also make soil invertebrates available to many bird species and constantly provide new foraging areas.

Stand 3A – Natural Cypress (16 acres)

This stand is an area of natural cypress, tupelo and red maple in the northeast corner of the property bordering Lake Sampson. This area has great aesthetic and wildlife habitat value and should be retained as is. No management recommendations are made for this stand.

Many reptiles and amphibians are normally found in these communities, including a variety of salamanders, frogs, toads and snakes. Woodstorks, wood ducks, barred owls, swallow tailed kites, raccoons and white-tailed deer are some of the other wildlife species that use these communities.

These cypress swamp areas provide valuable wildlife habitat, biological diversity and aesthetic values. Management should be passive and protective including the maintenance of natural water level fluctuations and mimicking natural ecological processes to perpetuate this interesting ecosystem.

Historically, normal hydro periods for these communities were 200 to 300 days per year in the deeper areas, more recently the hydro period has been reduced due to low rainfall and subsequently low ground water levels. Cypress swamps derive much of their water supply through runoff from surrounding uplands. Swamps generally function as reservoirs that recharge the aquifer when adjacent water tables drop during drought periods. Normal hydro periods are necessary for maintaining the cypress swamp community. Extended hydro periods limit tree growth and prevent reproduction, while shortened hydro periods permit the invasion of mesophytic species and eventually hardwoods may replace cypress. Water must be available for the germination of cypress seeds. *actually the site would need to be dry for some time.* *

Stand 4 – Natural Mixed Pine and Hardwood (24 acres)

This stand is natural slash pine with a mix of young hardwoods. The understory is dominated by gallberry, saw palmetto and wax myrtle. Within this stand three experimental plots have been established and planted to pines. Additionally this stand was mown in 2005-06 to release planted pines and reduce fuel loads.

Plot 1 was mowed with a Brown tree cutter in 2001. Longleaf pines were planted in January 2002. The plot was mowed in 2004 with the Brown tree cutter.

Plot 2 was mowed with a Brown tree cutter in 2001. Longleaf pines were planted in January 2002. Part of the plot was mowed in 2004 with the Brown tree cutter

Plot 3 was planted to slash pines in 1998. The plot was mowed in 2001 with the Loftness flail mower.

One herbicide treatment was applied to wax myrtle using 20% Garlon 3A.

Future management will require additional herbicide treatments and mowing to the newly planted portions in order to maintain access to the stand, maintain a diverse herbaceous groundcover for wildlife habitat, reduce fuels and reduce woody competition. Some type of treatment will be required at two to three year intervals to prevent the development of a woody midstory. As the planted areas mature and the canopy closes the frequency of treatments may be reduced as sunlight penetration is reduced. In the mature portions of the stand intermediate and suppressed trees can be selectively removed by use of the tree cutter, chainsaw or herbicides to open up the stand and release the highest quality trees from competition. These timber stand improvement activities will help improve mast production and improved growth rates in the best quality trees while improving the stand aesthetically with a more open park-like appearance. Some shrubby thickets should be retained to provide cover and foraging habitat for species that prefer shrub cover.

Stand 5A & 5B- Cypress and Swamp Hardwood Bay (11 acres)

This stand is two forested wetland depressions that provide excellent wildlife habitat and aesthetic value to the property. Some mowing has been done on the edges to reduce fuels and improve access. Additional mowing can be done to establish trails and reduce fuels but care should be taken to mow during dry periods to avoid rutting or compacting soils. Ditch plugs were placed in this stand to help restore the natural hydrology causing these stands to retain more water. No management recommendations are made for this stand.

Stand 6 - Home Site (3.8 acres)

The home site should be maintained according to the Florida Forest Service Firewise guidelines for homes in forested areas. These practices include maintaining a defensible space of at least 30 feet around all structures and avoiding landscaping with highly flammable vegetation. The home site is an ideal area for maintaining bird houses, bird feeders and planning a wildlife/butterfly friendly garden.

Nesting structures can be provided for such songbird species as chickadees, fly-catchers, wrens, and mourning doves. Nesting and roosting structures can also be provided for larger wildlife species such as bats and owls.

Nest box tips: Preferably all nesting structures should be placed on metal poles to deter predators from climbing. Place no more than 4 nesting structures (small) per targeted bird species for the property or no more than one larger nesting structure per acre. Entrance holes should be faced east when possible to keep from overheating the box in summer.

Wildflower plots and flowering shrubs can also be established around the residence to improve aesthetic qualities, and to provide nectar-producing plant species for hummingbirds and butterflies.

ROW (3.8 acres)

This power line right-of-way provides a permanent opening that can be used for several wildlife habitat improvement practices. Rotational disking of strips in winter (Dec.-Feb.) will stimulate an annual plant community dominated by legumes and seed producing forbs and provide excellent brood habitat for quail and turkey chicks. Other areas can be maintained by rotational mowing to create additional feeding and nesting areas. Avoid mowing from April through July when birds are nesting and deer are fawning. Some areas can be maintained as food plots and planted to agronomic species if desired.

5-Year Timetable of Recommendations

YEAR	SEASON	STAND	PRACTICE
2013	Fall	All	Create firebreaks.
2013-14	Winter	2	Use prescribed fire or start rotational mowing.
2014	Spring	6	Plant warm season food plots such as corn, millet, peas, grain sorghum, aeschynomene
2014	Fall	6	Plant cool season food plots such as small grains, greens (mustard, rape) and clovers or disk for native cover
2014-15	Winter	All	Rework firebreaks.
2015	Winter	1	Third or Fourth row thin
2015	Winter	4	Use prescribed fire or start rotational mowing.
2015	Spring	6	Plant warm season food plots.
2015	Fall	6	Plant cool season food plots
2015-16	Winter	All	Rework firebreaks.
2016	Winter	1	Prescribe burn.
2016	Spring	6	Plant warm season food plots.
2016	Fall	6	Plant cool season food plots
2016-17	Winter	All	Rework firelines
2017	Winter	2	Prescribe burn.
2017	Spring	6	Plant warm season food plots.
2017	Fall	6	Plant cool season food plots
2017-18	Winter	All	Rework firelines
2018	Winter	4	Prescribe burn.
2018	Spring	6	Plant warm season food plots.
2018	Fall	6	Plant cool season food plots

Appendix:

Appendix 1: Stand & Soil Maps

Appendix 2: Benefits of prescribed fire

Appendix 3: Thinning Southern Pines

Appendix 4: Planting Longleaf Pine on Cutover Forestland

Appendix 5: Guidelines for Creating and Managing Wildlife Openings in Pine Plantations

Appendix 6: Managing Oaks to Produce Food for Wildlife

Appendix 7: Effects of Fire on Florida's Wildlife and Wildlife Habitat

33 6S 21
COM SW COR OF SEC. N89*57'06"E
197.99' TO C/L CR-225, THENCE
N18*27'48"W 519.23', THENCE

STILL PAUL E & KATHLEEN M
14167 SW 101ST AVE
STARKE, FL 32091

00819-0-00200

Bradford County 2015 R
CARD 001 of 001
BY KENNY

PRINTED 8/28/2015 8:13
APPR 1/29/2013 AJC

AE BN	CODE	DESC	LEN	WID	HGHT	QTY	QL	YR	ADJ	UNITS	UT	PRICE	ADJ	UT	PR	SPCD	%	GOOD	XFOB	VALUE
BUSE	000800	MH SW																		
MOD	2	MOBILE HME																		
EXW	25	MOD METAL																		
%																				
RSTR	01	FLAT																		
RCVR	12	MODULAR MT																		
%																				
INTW	04	PLYWOOD																		
%																				
FLOR	07	CORK/VTILE																		
%																				
HTTP	01	NONE																		
A/C	01	NONE																		
QUAL	03	AVERAGE																		
FNDN																				
SIZE																				
CEIL																				
ARCH																				
FRME																				
KTCH																				
WNDO																				
CLAS																				
OCC																				
COND																				
SUB	A-AREA	%	E-AREA																	
BAS97	576	100	576																	
TOTAL	576		576																	
-----EXTRA FEATURES-----																				
AE BN	CODE	DESC	LEN	WID	HGHT	QTY	QL	YR	ADJ	UNITS	UT	PRICE	ADJ	UT	PR	SPCD	%	GOOD	XFOB	VALUE
N	009910	MKT.VAL.AG																		
Y	005000	RURAL HOME																		
N	005500	TIMBER 2																		
N	005600	TIMBER 3																		
B001 - RP 739453																				
SALE - INCL #817																				

AE BN	CODE	DESC	ZONE	ROAD	UTIL	UD1	UD2	UD3	UD4	FRONT	DEPTH	FIELD CK:	ADJUSTMENTS	UNITS	UT	PRICE	ADJ	UT	PR	LAND VALUE
N	009910	MKT.VAL.AG												1.00	1.00	1.00	1.00			
Y	005000	RURAL HOME												1.00	1.00	1.00	1.00			
N	005500	TIMBER 2												1.00	1.00	1.00	1.00			
N	005600	TIMBER 3												1.00	1.00	1.00	1.00			

B001 - RP 739453

SALE - INCL #817

S.33 I-6S R-21
Lat. 29.926902, Lon. -82.20982

