

LOUISIANA DEPARTMENT OF WILDLIFE & FISHERIES



**OFFICE OF FISHERIES
INLAND FISHERIES SECTION**

PART VI -A

WATERBODY MANAGEMENT PLAN SERIES

PEARL RIVER, LOUISIANA

LAKE HISTORY & MANAGEMENT ISSUES

CHRONOLOGY

DOCUMENT SCHEDULED TO BE UPDATED ANNUALLY

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GENERAL INFORMATION

The Pearl River is formed by the confluence of Nanaway and Tallahaga Creeks in Neshoba County, Mississippi. It flows southward and empties into the Rigolets and Lake Borgne, Louisiana. It is approximately 444 river miles long. Major tributaries include Lobutch Creek, the Yockanookany, Strong, and Bogue Chitto Rivers. A dam at Jackson, MS, forms the Ross Barnett Reservoir. In Louisiana, the Pearl River flows through Washington and St. Tammany Parishes. It also defines a portion of the border between Louisiana and Mississippi. Historically, the Pearl River was used for commercial transportation. A remnant navigation canal with low head sills and locks are still in place. NASA's Stennis Space Center is located on the East Pearl River at the historic town of Gainesville, MS. Seven Louisiana designated natural and scenic streams lie within the Pearl River Basin: Pushepatapa Creek, Bogue Chitto River, Holmes Bayou, Bradley Slough, Wilson Slough, Morgan River and West Pearl River. Two wildlife management areas (WMA's) and one national wildlife refuge (NWR) are found in the Pearl River Basin: Old River WMA in Mississippi, Pearl River WMA in Louisiana and Bogue Chitto NWR in Louisiana. The Pearl River Basin is home to the highest concentration of aquatic species of concern in Louisiana.

The following waterbody codes are used for the Pearl River Basin in Louisiana:

MS state line to the Pearl River Navigation Canal: **90101**
E. Pearl River, Holmes Bayou to I-10: **90102**
E. Pearl River, I-10 to Lake Borgne: **90103**
Pearl River Navigation Canal, Pools Bluff to Lock 3: **90105**
Holmes Bayou, Pearl River to West Pearl River: 90106
Pearl River, Pearl River Navigation Canal to Holmes Bayou: **90107**
West Pearl River, Headwaters to Holmes Bayou: **90201**
West Pearl River, Holmes Bayou to the Rigolets, includes east and west mouths: **90202**
Bogue Chitto, Pearl River Navigation Canal to Wilson Slough: **90203**
Pearl River Navigation Canal, Below Lock 3: **90204**
Wilson Slough, Bogue Chitto to West Pearl River: **90205**
Bradley Slough, Bogue Chitto to West Pearl River: **90206**
Middle River and West Middle River, West Pearl River to Little Lake: **90207**
Morgan Bayou, Headwater near I-10 to Middle River: **9020902**
Pushepatapa Creek, Headwaters and tributaries from Mississippi state line to Pearl River floodplain: **90301**
Bogue Lusa Creek, Headwaters to Pearl River floodplain: **90401**
Bogue Chitto: Mississippi state line to Pearl River Navigation Canal: **90501**
Big Silver Creek, Headwaters to Bogue Chitto: **90502**
Little Silver Creek, Headwaters to Bogue Chitto: **90503**
Lawrence Creek, Headwaters to Bogue Chitto: **90504**
Bonner Creek, Headwaters to Bogue Chitto: **90505**
Thigpen Creek, Headwaters to Bogue Chitto: **90506**

Impoundment

The Pearl River is impounded by a dam at Jackson, MS that forms the Ross Barnett Reservoir: <http://www.therez.ms/>. The river is not impounded in Louisiana. However, both the Pearl River and Bogue Chitto Rivers are dammed by low head sills. The sills are in place as part of the West Pearl River Navigation Canal project (WPRNC) as shown in Appendix - Figure 1. The WPRNC was authorized in 1939 and completed in 1957. The project included channelization of the Pearl River, construction of 2 low head sills and a parallel canal with 3 locks. Lastly, a spillway was placed in the canal between locks one and two. The Pools Bluff Sill (PBS) is located at the upper end of the navigation canal near river mile (RM) 48.7. It is 350 feet wide and built out of reinforced concrete. It is designed to maintain a navigable depth in the Pearl River to Bogalusa. The Bogue Chitto Sill (BCS) is located near river mile RM 44 between locks 2 and 3. It is 250 feet wide and built out of reinforced concrete. It is designed to maintain a navigable depth in the parallel canal between locks 2 and 3. This project was not designed for drawdown purposes. In 1990, a United States Army Corps of Engineers (USACE) study concluded that the project was no longer economically viable. Funding for the project was withdrawn and maintenance halted. In 2003, the project exceeded its 50 year project life and was considered for de-authorization. However, funding to initiate necessary studies was never approved. In 2005, USACE abandoned the project and ceased to operate or maintain any of the structures associated with the project. These structures include:

1. Locks 1, 2, and 3
2. Boat ramps at Pools Bluff and Lock 1
3. Boat portages at the sills.

St. Tammany and Washington Parishes have assumed maintenance responsibility of the boat ramps. However, there is no method of boat portage available at the sills. The gates at locks 1, 2 and 3 are operated on a limited basis by special request to USACE Vicksburg District Operations (601) 631-5486.

Watershed

The Pearl River watershed covers about 8,760 square miles and lies within both Mississippi and Louisiana. Elevation within the basin ranges from 350 feet above mean sea level in the northwest portion to sea level at the southern end. Land use within the basin is predominately agriculture and forestry. However, urbanization is steadily increasing.

Parishes located

Washington Parish and St. Tammany Parish

Border Waters

The Pearl River Basin in Louisiana is bordered on the north by the Pearl River at the Mississippi state line and on the west and south by the Lake Pontchartrain Basin.

Water Authority

The Louisiana Department of Natural Resources has authority over all surface water withdrawals for commercial purposes as per the Surface Water Management Act - La. R S 30:961-963 (Act 955 of the 2010 legislative session).

<http://dnr.louisiana.gov/index.cfm?md=pagebuilder&tmp=home&pid=92>

Associations

There are several organizations which actively participate in Pearl River Basin issues. Groups like the Lake Pontchartrain Basin Foundation, Louisiana Audubon Council, Sierra Club, and the Nature Conservancy often review and comment on management issues. These issues include navigation, flood control, pollution, and aquatic species management. In 2003, the Pearl River Fishway LLC was formed to study the feasibility of a fish passage at Pools Bluff Sill. A PDF copy their 2004 technical report is available upon request from Dr. Barry Kohl at (504) 861-8465.

Authorization

The State of Louisiana has authority over the state-owned water bottoms of the Pearl River and its significant tributaries within the state. The laws governing Natural and Scenic River Systems regulate some land practices along the river and also protect the river from hydrologic alterations. The Louisiana Department Wildlife and Fisheries (LDWF) regulate fisheries in all public waters that drain the Pearl River watershed in Louisiana, including the Bogue Chitto River where it flows through the National Wildlife Refuge.

Access

Boat Ramps in Louisiana: Appendix - Figures 2, 3, 4 and 5)

1. Hwy 10 Bridge in Bogalusa (Figure 2)
2. Richardson Landing in Bogalusa (Figure 2)
3. Pools Bluff Launch: (Figure 2)
4. Lock #3 Launch (Figure 3)
5. Fisherman's Landing (Figure 3)
6. Lock #2 Launch (Figure 3)
7. Lazy J Campground (Figure3)
8. Lock #1 Launch 1 (Figure 4)
9. Lock #1 Launch 2 (Figure 4)
10. Hwy 59 Launch (Figure 5)
11. Davis Landing (Figure 5)
12. Crawford's Landing (Figure 5)
13. Indian Village (Figure 5)
14. Hwy 90 Middle River Launch (Figure 5)
15. Hwy 90 E. Pearl River Launch (Figure 5)

Boat docks

There are small boat docks available at the Hwy 90 Launch at East Pearl River.

State/Federal facilities

1. Bogue Chitto NWR (US Fish and Wildlife Service)
<http://www.fws.gov/boguechitto/>
2. Old River WMA (Mississippi Dept. of Wildlife, Fisheries, and Parks - MDWFP)
<http://www.mdwfp.com/wildlife-hunting/wmas/southwest-region/old-river.aspx>
3. Pearl River WMA (LDWF)
<http://www.wlf.louisiana.gov/wma/2789>
4. NASA's Stennis Space Center
<http://www.nasa.gov/centers/stennis/home/index.html>

State/National Parks

Bogue Chitto State Park:

<http://www.crt.state.la.us/parks/iboguechitto.aspx>

Shoreline Development

Shoreline development by landowners

The Pearl River actively meanders within the floodplain. This tends to limit shoreline development. The river is no longer dredged and commercial shipping has ceased. Sand and gravel mining does take place in the floodplain. In Louisiana, these operations are permitted and regulated by the Louisiana Department of Environmental Quality (LDEQ).

<http://www.deq.louisiana.gov/portal/>

The link below describes land use practices within the Mississippi portion of the Pearl River watershed.

[http://www.deq.state.ms.us/mdeq.nsf/pdf/WMB_PearlRiverBasinCitizenGuide112008/\\$File/Pearl%20River%20Basin_Final_pr.pdf?OpenElement](http://www.deq.state.ms.us/mdeq.nsf/pdf/WMB_PearlRiverBasinCitizenGuide112008/$File/Pearl%20River%20Basin_Final_pr.pdf?OpenElement)

Shoreline development consists of residential homes, camps and houseboats.

Physical Description of River

Shoreline length

Approximately 880 miles

Timber / Vegetation Type

Habitat in the Pearl River watershed includes pine forests, bottomland hardwoods and cypress-tupelo swamps. Aquatic habitat includes both fresh and brackish marsh as the waters of the Pearl River approach the coastline.

Natural seasonal water fluctuation

The Pearl River Basin drains approximately 8,760 square miles. Rainfall within the drainage greatly affects the water level. Discharge from Ross Barnett Reservoir, MS also affects water levels in the Pearl River. Seasonal fluctuation may vary from several feet to over 20 feet following an extensive rainfall event.

Events / Problems

Navigation Channel Construction

The U.S. Army Corps of Engineers (USACE) project “Pearl River Navigation Channel” has had lasting impacts on habitat within the basin. The placement of 2 low head sills and a navigation canal with 3 locks have altered the historic migration routes and the overall life cycle of 18 fish species, including the gulf sturgeon and Alabama shad (Table 1). The sills also restrict access and are hazardous to boaters. In recent years the rail car, boat portage system at Pools Bluff sill has been inoperable. In February 2012, the only functioning means of boat portage at the Bogue Chitto sill was removed by USACE. This followed an accident with 2 fatalities at the site.

Table 1. Migratory Fish in the Pearl River Basin from Kohl (2004).

Status	Common Name	Scientific Name
Anadromous	Alabama shad	<i>Alosa alabamae</i>
	Atlantic Needlefish	<i>Strongylura marina</i>
	Gizzard shad	<i>Dorosoma cepedianum</i>
	Gulf sturgeon	<i>Acipenser oxyrinchus desotoi</i>
	Hogchoker	<i>Trinectes maculata</i>
	Striped bass	<i>Morone saxatilis</i>
	Skipjack herring	<i>Alosa chrysochloris</i>
	Threadfin shad	<i>Dorosoma petenense</i>
Catadromous	American eel	<i>Anguilla rostrata</i>
Potamodromous	Blacktail redhorse	<i>Moxostoma poecilurum</i>
	Blue catfish	<i>Ictalurus furcatus</i>
	Channel catfish	<i>Ictalurus punctatus</i>
	Flathead catfish	<i>Pylodictis olivaris</i>
	Highfin carpsucker	<i>Carpionodes velifer</i>
	Paddlefish	<i>Polyodon spatula</i>
	Pearl darter	<i>Percina aurora</i> (extirpated)
	Quillback	<i>Carpionodes cyprinus</i>
	River redhorse	<i>Moxostoma carinatum</i>
	Southeastern blue sucker	<i>Cycleptus meridionalis</i>
	Spotted sucker	<i>Minytrema melanops</i>

Fish Kill

In August 2011, an unauthorized discharge from the paper mill in Bogalusa caused a fish and mussel kill in the Pearl River from Bogalusa to Hwy 90 in St. Tammany Parish. District 8 personnel assisted LDEQ and cooperated with MDEQ, USFWS, MDWFP and LDWF enforcement agents conducting a field investigation of the incident. LDWF biologists and senior technical advisors produced the report “Pearl River – Temple Inland Incident 2011”.

Aquatic Vegetation

There are currently no major issues with aquatic vegetation in the Pearl River. In 2011 a small accumulation of giant salvinia was found at the Lock 1 Boat Ramp in the PRNC. The majority of plant material was physically removed and several tank mixed applications of glyphosate and surfactant were made to the area. Booms were placed around the affected area to prevent the plant from spreading. Bimonthly monitoring trips were made over the following 6 months and no giant salvinia was found. Monitoring for the plant was reduced to once monthly. To date no giant salvinia has been found in the area.

MANAGEMENT ISSUES

Aquatic Vegetation

Treatment history by year available

Biological

An experimental release of common salvinia weevils (*Cyrtobagous salviniae*) was made at a single location in 2008 (Figure 1). This site is considered the uppermost occurrence of common salvinia in the Pearl River Basin in Louisiana. Plant material collected locally was infested with common salvinia weevils from Florida and transplanted into the area. No estimates of weevil numbers were made.

Chemical

The chemical treatment of aquatic vegetation in the Pearl River basin from 2008 – 2012 is detailed in Tables 2 and 3 including year, vegetation, herbicide used, and acreage sprayed for control.

Table 2. Area of aquatic vegetation treated by year (2008 – 2012)

Year	Vegetation	Acres (treated)
2008	Primrose	4.24
	Salvinia, Common	218.29
	Sedge	12.30
	Spatterdock	10.17
	Torpedo Grass	25.63
	Water Hyacinth	129.95
2008 total		400.58
2009	Alligatorweed	32.12
	Salvinia, Common	298.10
	Water Hyacinth	219.56
2009 total		563.43
2010	Alligatorweed	47.71
	Duckweed	33.43
	Salvinia, Common	332.79
	Water Hyacinth	266.10
2010 total		680.03
2011	Salvinia, Common	218.29
	Sedge	12.30
	Spatterdock	10.17
	Torpedo Grass	25.63
	Water Hyacinth	129.95
2011 total		396.34
2012	Alligator Weed	15
	Pennywort	8
	Primrose	15

	Common Salvinia	233
	Torpedo Grass	3
	Water hyacinth	97
	Duckweed	15
	Cut grass	7
		2012 Total - 392

Table 3. Herbicide used to treat aquatic nuisance vegetation by year for 2008–2012.

Year	Chemical	Amount sprayed (gal)	Acres (treated)
2008	2,4-D	55	110
	Aquamaster	73.5	106.8
	Aquastar	30.6	27
	Reward	88.5	117.42
	Diquat E Pro2L	13	17.29
2009	2,4-D	79	158
	Aquamaster	94	126.9
	Diquat E Pro2l	66	88.9
	Knockout	117	155.75
2010	2,4-D	110	220
	Aquamaster	122.5	163.97
	Knockout	249	333.6
	Clearcast	1	4
2011	Aquamaster	64.5	87
	Knockout	102	137.57
2012	2,4-D	29	58
	Aquamaster	89	118
	Tribune	175	231

Type map

No vegetative type map sampling has been conducted on the Pearl River.

History of Regulations

LDWF administers the Louisiana Natural and Scenic Rivers System, established in 1970 for the purpose of preserving, developing, reclaiming and enhancing the wilderness qualities, scenic beauty and ecological regime of designated free-flowing water bodies. A natural and scenic river as defined by Louisiana Revised Statute 56:1845 is a river, stream, or bayou that is in a free-flowing condition and has not been channelized, cleared or snagged within the past 25 years, realigned, inundated or otherwise altered, has a shoreline covered by native vegetation and has no or few manmade structures along its banks. LDWF considers the following factors for each stream: fish and wildlife habitat, typical fish and wildlife species, protected/rare/endangered/ threatened species (PRETS), geological/hydrological features,

water quality, historical/archaeological, wilderness quality/scenic value and recreation (Herring et al. 1995).

The main stem of the Pearl River in Louisiana is not designated a Natural and Scenic River. However, Louisiana Revised Statute 56:1847 designates several tributaries, distributaries and remnant river channels within the basin as Natural and Scenic Rivers. These include Pushepatapa Creek, Bogue Chitto River, Holmes Bayou, Bradley Slough, Wilson Slough, Morgan River and West Pearl River. Also, Louisiana Revised Statute 56:404 prohibits the use of seines, nets, webbing and hand grabbing of fish in the Bogue Chitto River. Additional recreational and commercial fishing regulations as they may pertain to the Pearl River Basin can be viewed at the Louisiana Department of Wildlife and Fisheries website at the links provided below.

Table 4. Links to statewide recreational and commercial fishing regulations for 2013.

Recreational fishing regulations:

<http://www.wlf.louisiana.gov/fishing/regulations>

Commercial Fishing Regulations:

<http://www.wlf.louisiana.gov/fishing/regulations>

Fish kills

A major fish and mussel kill occurred in the Pearl River in August 2011. Complete details concerning this event are covered in the final report: Investigation of a Fish and Mollusk Kill in the lower Pearl River, Louisiana and Mississippi, August 2011. In 2005 Hurricane Katrina caused a severe fish kill. Local witnesses reported seeing massive rafts of dead fish and mussels floating downstream following the storm. However, no official investigations or reports were made. Results from LDWF biological sampling after Hurricane Katrina indicate the LMB population was affected but quickly recovered. In August 1992 a fish kill occurred in Bogalusa Creek as a result of an accidental discharge from the mill owned by Gaylord Container Corporation.

Contaminants / Pollution

The following fish consumption (Table 5 and 6) and swimming advisories can be found on the Department of Environmental Quality/Mercury Initiative website:

<http://www.deq.louisiana.gov/portal/default.aspx?tabid=1631>

Table 5. Fish consumption advisory for the Pearl River, Louisiana 2011.

<p>Pearl River</p> <p>LA090101_00 LA090102_00 LA090103_00 LA090105_00 LA090106_00 LA090107_00 LA090201_00 LA090202_00 LA090202-5126 LA090204_00 LA090205_00 LA090206_00 LA090207_00 LA090207-5112 (Washington, St. Tammany)</p>	<p>Mercury</p>	<p>Advisory fish consumption</p>	<p>Women of childbearing age and children less than seven years of age SHOULD NOT CONSUME BOWFIN (choupique, grinnel) and should consume no more than ONE MEAL PER MONTH of bass (all species), bigmouth buffalo, or freshwater drum combined from the advisory area.</p> <p>Other adults and children seven years of age and older SHOULD NOT CONSUME BOWFIN (choupique, grinnel) and should consume no more than FOUR MEALS PER MONTH of bass (all species), bigmouth buffalo, or freshwater drum combined from the advisory area.</p> <p>Unless the fish species is specifically addressed in the details of the advisory, please limit consumption of all species in an advisory area to FOUR MEALS PER MONTH.</p>	<p>57 miles-</p> <p>This advisory includes the entire Pearl River</p>	<p>Issued: 3/1/97 Revised: 5/29/03</p>
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Table 6. Fish consumption advisory for the Bogue Chitto River, Louisiana 2011.

<p>Bogue Chitto River</p> <p>LA090501_00 LA090203_00 (Washington, St. Tammany)</p>	<p>Mercury</p>	<p>Advisory fish consumption</p>	<p>Women of childbearing age and children less than seven years of age should consume no more than ONE MEAL PER MONTH of bass (all species) or bowfin (choupique, grinnel) combined from the advisory area.</p> <p>Other adults and children seven years of age and older should consume no more than FOUR MEALS PER MONTH of bass (all species) or bowfin (choupique, grinnel) combined from the advisory area.</p> <p>Unless the fish species is specifically addressed in the details of the advisory, please limit consumption of all species in an advisory area to FOUR MEALS PER MONTH.</p>	<p>35 miles-</p> <p>From the MS/LA state line to the Pearl River Navigation Canal</p>	<p>Issued: 8/96 Revised: 5/29/03</p>
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Water quality

For complete details of LDEQ water quality descriptions for the Pearl River please follow the links below:

<http://www.deq.louisiana.gov/portal/Portals/0/planning/305b/10%20IR1%20Appendix%20H%20303d%20List%20FINAL%201-13-2011.pdf>

<http://www.deq.louisiana.gov/portal/>

Water level

Water level data was provided by the United States Geological Survey (USGS) and can be found at the following website: http://waterdata.usgs.gov/usa/nwis/uv?site_no=02489500

Biological

Fish samples

Note: All standardized sampling data collected by Inland Fisheries from 1965 through present are computerized. Any data prior to 1965 in the form of paper documents or reports are listed below:

Pre 1965 - NONE

A history of sampling efforts, past, present and future is presented in Table 7. Biological sampling for the Pearl River is scheduled for the next 3 consecutive years (2012 – 2014). This is in response to the Temple Inland Fish Kill Incident of August 2011.

Table 7. Historical, current, and future standardized sampling history in the Pearl River Basin, Louisiana from 1990 till 2014.

PEARL RIVER FISH SAMPLING	
1990	Electrofishing – 4-15 minute samples (spring), 2- 15 minute samples (fall)
1994	Electrofishing – 4-15 minute samples (spring), 5-15 minute samples (fall), 2- 7.5 minute forage samples (fall)
1998	Gill nets 11- 12 hour samples Seine 4 – 50 feet samples (summer) 2-frame or wing nets samples (summer)
1999	Electrofishing – 8-15 minute samples (summer), 4- 15 minute samples (fall) 21- 12 hour gill net samples
2000	Electrofishing – 2-15 minute samples (spring) 7- 15 minute samples (summer) 2- 15 minute samples (winter) 23-12 hour gill net samples
2001	Gill nets 10- 12 hour samples
2003	Electrofishing – 4-15 minute samples (spring)
2006	Electrofishing – 16-15 minute samples (spring), 8- 15 minute samples (fall), 1- 7.5 minute forage samples (spring)
2007	Electrofishing – 6-15 minute samples (fall)
2008	Electrofishing – 4-15 minute samples (fall)
2009	Electrofishing – 8-15 minute samples (spring), 12- 15 minute samples (fall), 4- 15 minute samples (winter), 3- 7.5 minute forage samples (fall) Seine 4 – 50 feet samples (summer) 2-lead net samples (spring) 2- hoop net samples (spring)
2012	<u>Pearl River Post Incident Monitoring</u> 7-15 minute electrofishing samples 7-72 hour hoop net samples 3- 12hr gillnet samples 7-50 foot night time beach seine pulls, 3-20 foot night time seine pulls conducted in tributaries Freshwater mussel samples collected at 9 stations
2013	<u>Pearl River Post Incident Monitoring</u>

	7-15 minute electrofishing samples 7-72 hour hoop net samples 7-50 foot night time beach seine pulls, 3-20 foot night time seine pulls conducted in tributaries. Freshwater mussel samples collected at 9 stations
2014	<u>Pearl River Post Incident Monitoring</u> 7-15 minute electrofishing samples 7-72 hour hoop net samples 7-50 foot night time beach seine pulls, 3-20 foot night time seine pulls conducted in tributaries Freshwater mussel samples collected at 9 stations

Stocking history

The stocking history (Table 8) below shows LDWF historic fish stocking in the Pearl River Louisiana. LDWF in cooperation with the Gulf States Marine Fisheries Commission (GSMFC) has stocked striped bass and Gulf strain striped bass in the Pearl River, Louisiana. Furthermore, LDWF stocked Florida largemouth bass, bluegill and redear sunfish following Hurricane Katrina. Recent stocking efforts have focused on helping fish populations recover following the 2011 fish kill.

Table 8. The Louisiana Department of Wildlife and Fisheries stocking history in the Pearl River, Louisiana, from 2001 – 2012.

Date	Species	Size	Total
2001	Striped Bass	Fingerlings	15,000
2003	Gulf Striped Bass	Phase II	53,768
2004	Striped Bass	Phase II	7,796
2005	Florida Largemouth Bass	Phase II	2,500
	Gulf Striped Bass	Phase II	1,630
2006	Bluegill	Fingerlings	23,336
	Redear Sunfish	Fingerlings	47,232
	Florida Largemouth Bass	Fingerlings	100,133
	Florida Largemouth Bass	Phase II	500
	Gulf Striped Bass	Phase II	2,450
2008	Bluegill	Fingerlings	15,734
	Florida Largemouth Bass	Fingerlings	54,720
	Florida Largemouth Bass	Phase II	866
2009	Gulf Striped Bass	Phase II	4,601
2011	Bluegill	Fingerlings	24,276
	Channel Catfish	Fingerlings	26,907
2012	Northern Largemouth Bass	Fingerlings	65,894
	Bluegill	Fingerlings	255,125

Species profile

The Pearl River Basin contains the greatest aquatic species diversity in Louisiana (LDWF 2005). An extensive fish species list for the Pearl River is available in Ross et al. (2001) - Table 9.

Table 9. Fish species of the Pearl River in Mississippi and Louisiana (Ross et al. 2001)

Species	Species (continued)
<i>Cynoscion nebulosus</i>	<i>Ictiobus bubalus</i>
<i>Leiostomus xanthurus</i>	<i>Minytrema melanops</i>
<i>Paralichthys lethostigma</i>	<i>Moxostoma carinatum</i> *
<i>Trinectes maculatus</i>	<i>Moxostoma poecilurum</i>
<i>Etheostoma fusiforme</i>	<i>Bagre marinus</i>
<i>Etheostoma gracile</i>	<i>Ameiurus melas</i>
<i>Etheostoma histrio</i>	<i>Ameiurus natalis</i>
<i>Etheostoma kennicotti</i>	<i>Ameiurus nebulosus</i>
<i>Etheostoma lynceum</i>	<i>Ictalurus furcatus</i>
<i>Etheostoma parvipinne</i>	<i>Ictalurus punctatus</i>
<i>Etheostoma proeliare</i>	<i>Noturus funebris</i>
<i>Etheostoma stigmaeum</i>	<i>Noturus gyrinus</i>
<i>Etheostoma swaini</i>	<i>Noturus leptacanthus</i>
<i>Etheostoma histrio</i>	<i>Noturus miurus</i>
<i>Percina aurora</i> *	<i>Noturus munitus</i> *
<i>Percina lenticula</i>	<i>Noturus nocturnus</i>
<i>Percina maculata</i>	<i>Noturus phaeus</i>
<i>Percina nigrofasciata</i>	<i>Pylodictis olivaris</i>
<i>Percina sciera</i>	<i>Esox americanus</i>
<i>Percina shumardi</i>	<i>Esox niger</i>
<i>Percina suttkusi</i> *	<i>Notropis chalybaeus</i>
<i>Percina vigil</i>	<i>Notropis longirostris</i>
<i>Stizostedion canadense</i>	<i>Notropis maculatus</i>
<i>Sander vitreus</i>	<i>Notropis shumardi</i>
<i>Aplodinotus grunniens</i>	<i>Notropis texanus</i>
<i>Elassoma zonatum</i>	<i>Notropis volucellus</i>
<i>Eucinostomus argenteus</i>	<i>Notropis winchelli</i>
<i>Gobionellus shufeldti</i>	<i>Opsopoeodus emiliae</i>
<i>Gobiosoma bosc</i>	<i>Pimephales notatus</i>
<i>Microgobius gulosus</i>	<i>Pimephales promelas</i>
<i>Morone saxatilis</i>	<i>Pimephales vigilax</i>
<i>Ammocrypta beani</i>	<i>Pteronotropis signipinnis</i>
<i>Ammocrypta vivax</i>	<i>Pteronotropis welaka</i>
<i>Crystallaria asprella</i>	<i>Semotilus atromaculatus</i>
<i>Etheostoma chlorosomum</i>	<i>Carpiodes cyprinus</i>
<i>Syngnathus scovelli</i>	<i>Carpiodes velifer</i>
<i>Oligoplites saurus</i>	<i>Cycleptus meridionalis</i>
<i>Ambloplites ariommus</i>	<i>Erimyzon oblongus</i>
<i>Centrarchus macropterus</i>	<i>Erimyzon sucetta</i>
<i>Lepomis cyanellus</i>	<i>Erimyzon tenuis</i>

<i>Lepomis gulosus</i>	<i>Hypentelium nigricans</i>
<i>Lepomis humilis</i>	<i>Anchoa mitchilli</i>
<i>Lepomis macrochirus</i>	<i>Carassius auratus</i>
<i>Lepomis marginatus</i>	<i>Cyprinella camura</i>
<i>Lepomis megalotis</i>	<i>Cyprinella venusta</i>
<i>Lepomis microlophus</i>	<i>Cyprinus carpio</i>
<i>Lepomis miniatus</i>	<i>Ericymba buccata</i>
<i>Lepomis symmetricus</i>	<i>Hybognathus hayi</i>
<i>Micropterus punctulatus</i>	<i>Hybognathus nuchalis</i>
<i>Micropterus salmoides</i>	<i>Luxilus chrysocephalus</i>
<i>Pomoxis annularis</i>	<i>Lythrurus roseipinnis</i>
<i>Pomoxis nigromaculatus</i>	<i>Macrhybopsis aestivalis</i>
<i>Aphredoderus sayanus</i>	<i>Macrhybopsis storeriana</i>
<i>Mugil cephalus</i>	<i>Nocomis leptcephalus</i>
<i>Strongylura marina</i>	<i>Notemigonus crysoleucas</i>
<i>Cyprinodon variegatus</i>	<i>Notropis atherinoides</i>
<i>Fundulus catenatus</i>	<i>Ichthyomyzon castaneus</i>
<i>Fundulus chrysotus</i>	<i>Ichthyomyzon gagei</i>
<i>Fundulus dispar</i>	<i>Lampetra aepyptera</i>
<i>Fundulus grandis</i>	<i>Acipenser oxyrinchus desotoi*</i>
<i>Fundulus jenkinsi*</i>	<i>Polyodon spathula</i>
<i>Fundulus notatus</i>	<i>Lepisosteus oculatus</i>
<i>Fundulus nottii</i>	<i>Lepisosteus osseus</i>
<i>Fundulus olivaceus</i>	<i>Amia calva</i>
<i>Fundulus pulvereus</i>	<i>Hiodon tergisus</i>
<i>Lucania parva</i>	<i>Anguilla rostrata</i>
<i>Gambusia affinis</i>	<i>Alosa alabamae</i>
<i>Heterandria formosa</i>	<i>Alosa chrysochloris</i>
<i>Poecilia latipinna</i>	<i>Brevoortia patronus</i>
<i>Labidesthes sicculus</i>	<i>Dorosoma cepedianum</i>
<i>Menidia beryllina</i>	
* species of special concern in Louisiana	

Table 10. Mussel species of the Pearl River, Louisiana (Jones et al. 2005, Vidrine 1993)

Scientific Name	Common Name
<i>Unio merus declivis</i>	Tapered Pondhorn
<i>Pleurobema beadleanum</i>	Mississippi Pigtoe
<i>Unio merus tetralasmus</i>	Pondhorn
<i>Arcidens confragosus</i>	Rock Pocketbook
<i>Lasmigona complanata</i>	White Heelsplitter
<i>Glebula rotunda</i>	Round Pearlshell
<i>Lampsilis teres</i>	Yellow Sandshell
<i>Quadrula quadrula</i>	Mapleleaf
<i>Plectomerus dombeyanus</i>	Bankclimber
<i>Quadrula apiculata</i>	Southern Mapleleaf
<i>Elliptio crassidens</i>	Elephant-ear
<i>Quadrula refulgens</i>	Purple Pimpleback
<i>Tritogonia verrucosa</i>	Pistolgrip
<i>Utterbackia imbecillis</i>	Paper Pondshell
<i>Pyganodon grandis</i>	Giant Floater
<i>Lampsilis claibornensis</i>	Southern Fatmucket
<i>Villosa lienosa</i>	Little Spectaclecase
<i>Corbicula fluminea</i>	Asiatic Clam
<i>Fusconaia ebena</i>	Ebonys shell
<i>Truncilla donaciformis</i>	Fawnsfoot
<i>Ligumia subrostrata</i>	Pondmussel
<i>Fusconaia cerina</i>	Gulf Pigtoe
<i>Obliquaria reflexa</i>	Threehorn – Wartyback
<i>Leptodea fragilis</i>	Fragile Papershell
<i>Potamilus purpuratus</i>	Bleufer
<i>Potamilus inflatus</i>	Inflated Heelsplitter**
<i>Elliptio arca</i>	Alabama Spike
<i>Obovaria unicolor</i>	Alabama Hickorynut
**USFWS Threatened species	

Genetics

Florida largemouth bass have been stocked in the Pearl River. However, genetic data has not been collected.

Threatened/endangered/exotic species

The highest concentration of aquatic species of conservation concern in Louisiana is found in the Pearl River Basin (LDWF 2005). Table 11 lists those crustaceans, freshwater fish, mussels and reptiles which are of concern according to LDWF.

Table 11. Pearl River Basin Aquatic Species of Conservation Concern (LDWF 2005)

Crustaceans	Freshwater Fish	Mussels	Reptiles
Ribbon Crawfish	Gulf Sturgeon	Rayed Creekshell	Alligator Snapping Turtle
Plain Brown Crawfish	Paddlefish	Elephant - Ear	Ringed Mapped Turtle
Flatwoods Digger	Alabama Shad	Mississippi Pigtoe	Pascagoula Map Turtle
	Flagfin Shiner	Inflated Heelsplitter	Mississippi Diamond-backed Terrapin
	Bluenose Shiner	Southern Rainbow	Stripe-necked Musk Turtle
	Longjaw Minnow		
	River Redhorse		
	Frecklebelly Madtom		
	Crystal Darter		
	Channel Darter		
	Freckled Darter		
	Pearl Darter		
	Gulf Logperch		

Creel Surveys

No angler creel surveys have been conducted on the Pearl River.

Hydrological changes

The WPRNC was completed in 1957 and included the construction of a shipping canal with 3 locks, the placement of 2 low head sills, and channelization of the river up to Bogalusa, La. The low head sills were placed in the Pearl River at Pools Bluff, and the Bogue Chitto River near Fisherman's landing. Lastly, a spillway was installed between locks 1 and 2 to maintain the water within the canal. The Pearl River was later impounded at Jackson, MS in 1965 to form the Barnett Reservoir. The reservoir initially served to provide both recreation and a drinking water supply for Jackson. However, the reservoir has also been used for flood control purposes since the flood of 1979.

Water use

Hunting

The Pearl River Basin is home to the Bogue Chitto NWR, Old River WMA and the Pearl River WMA. These designated areas provide public hunting opportunity for small game, big game and waterfowl.

Fishing

The Pearl River is popular locally for both freshwater and saltwater fishing. Spotted bass and longear sunfish are often targeted in the upper reaches of the river. Largemouth bass, catfishes, and crappies are targeted in the lower reaches. Spotted sea trout, redfish and other marine species are targeted at the mouth of the river. Commercial fisheries include alligator

gar, blue catfish, channel catfish, crawfish and blue crab.

Trapping

Alligator trapping occurs on private land and via lottery on Pearl River WMA in Louisiana.

Skiing

The Pearl River Navigation Canal between Lock 1 and Lock 2 is a popular destination for recreational boaters and skiers.

Scuba Diving

The Pearl River is not generally used for scuba diving. The water visibility is low and boat traffic is heavy.

Swimming

People generally swim on sandbars in upper reaches of the river. Occasionally people swim from docks associated with camps.

Irrigation

Water withdrawals are prohibited, except for withdrawals made by an riparian land owner for residential purposes only (LAC Title 76: Part IX 117).

REFERENCES

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- Louisiana Department of Environmental Quality. 1996. Louisiana water quality inventory, Section 305(b) report. Water Quality Management Division, Planning and Assessment Section, Baton Rouge, LA. 122 pp.
- Ross, Stephen T., et al. 2001. Inland Fishes of Mississippi. Mississippi Department of Wildlife, Fisheries and Parks.

APPENDIX

[\(click here to return\)](#)

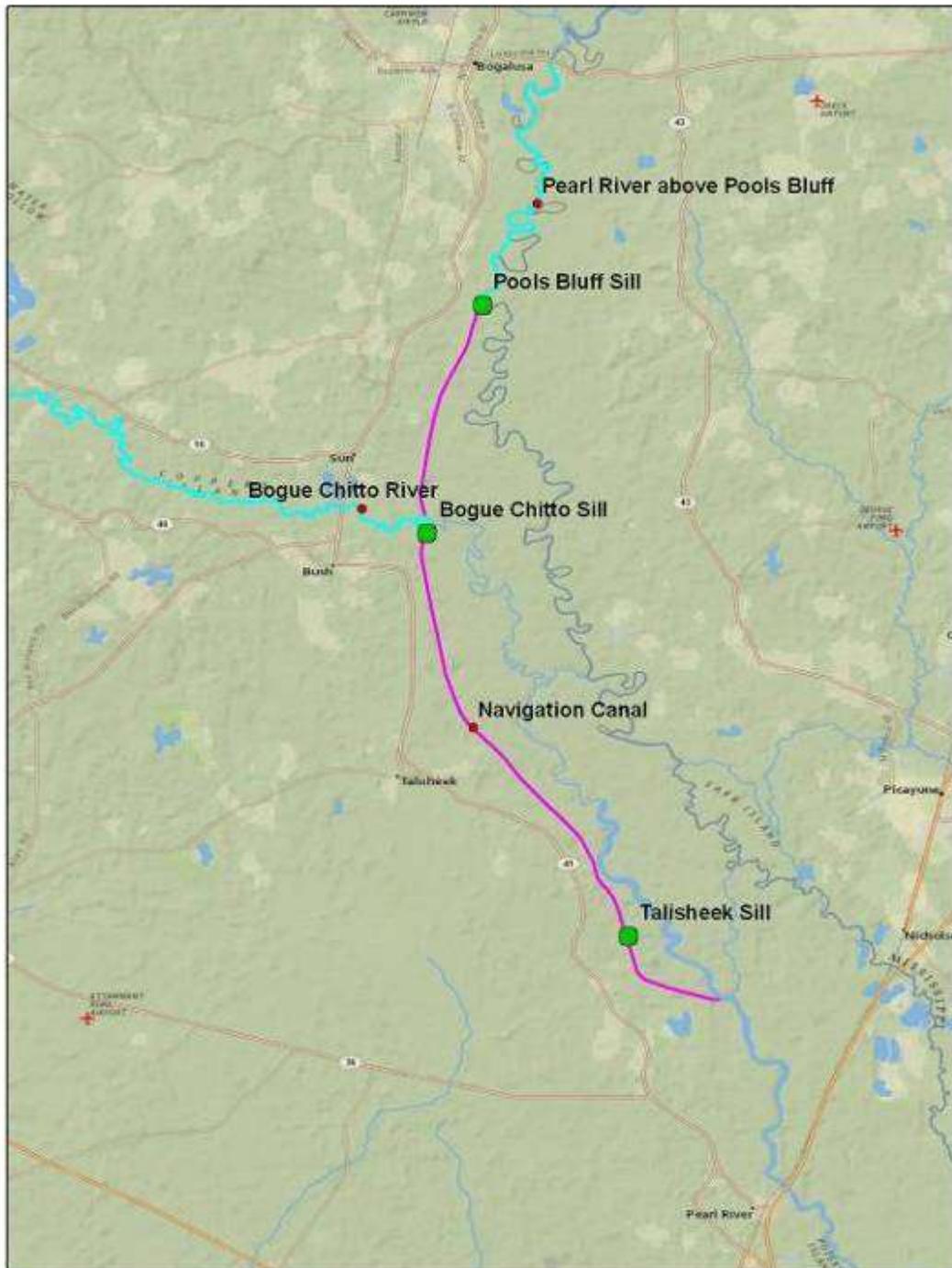


Figure 1. West Pearl River Navigation Project.

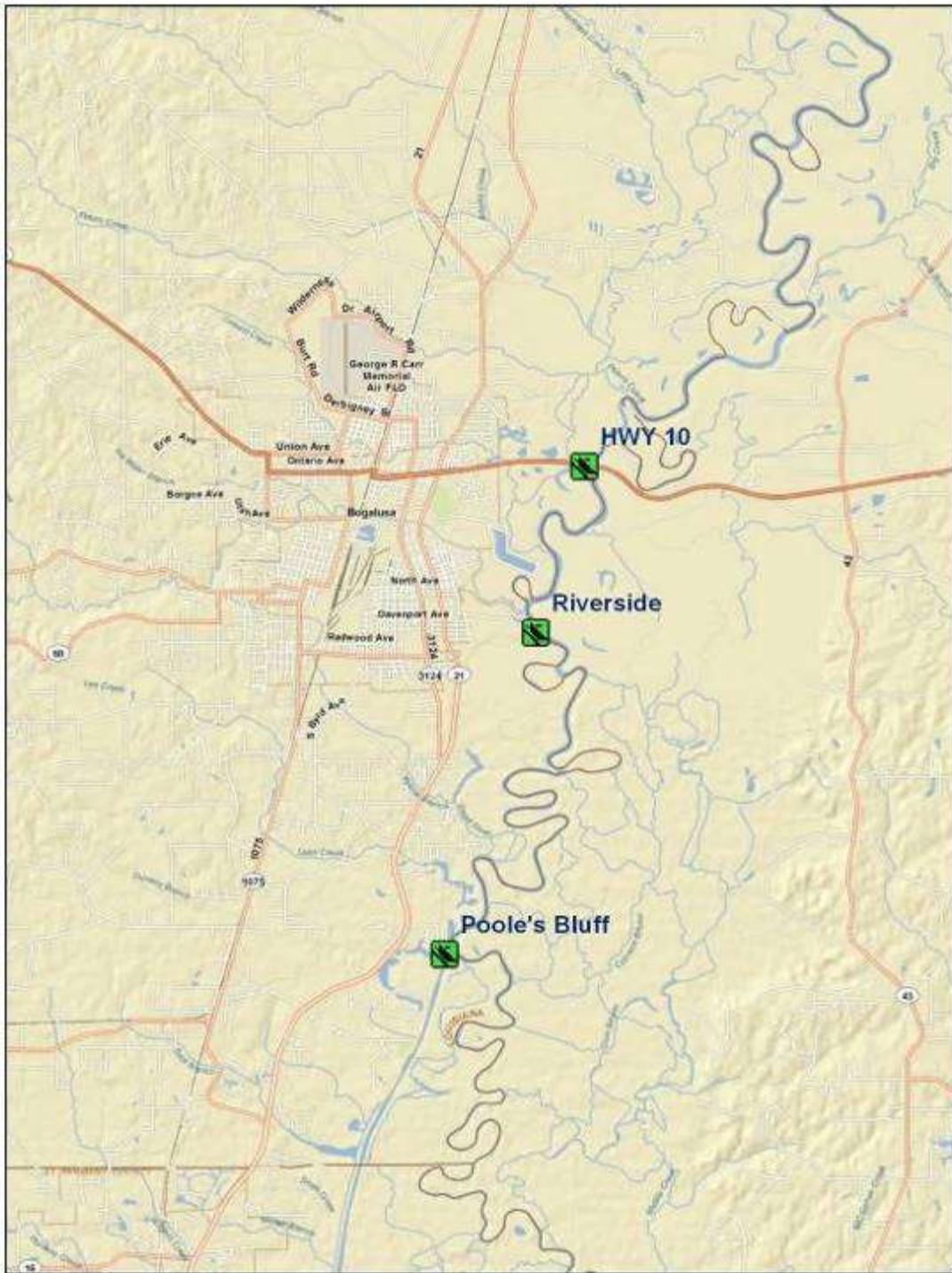


Figure 2. Location of Launches at Hwy 10, Riverside Drive and Poole's Bluff.

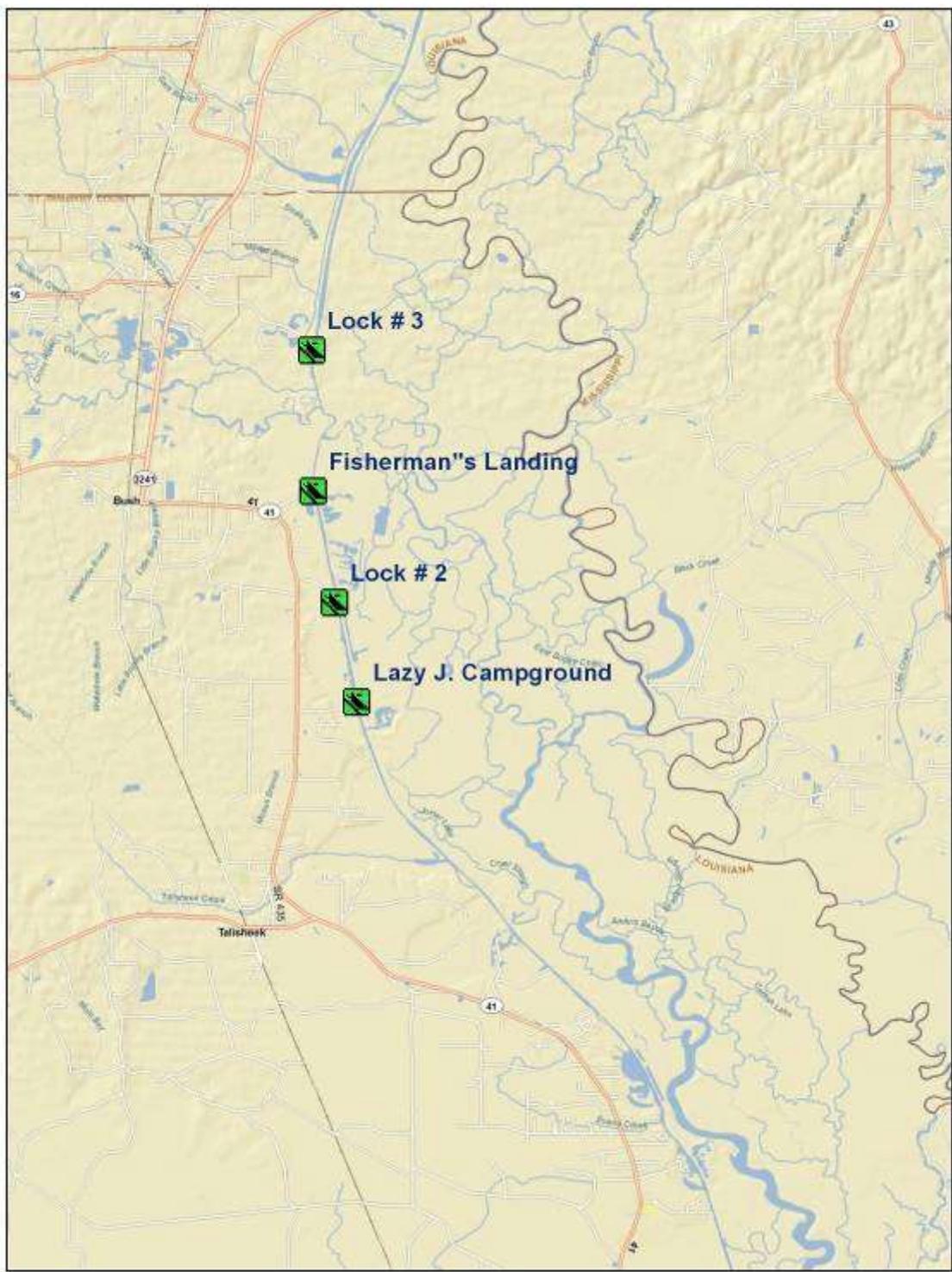


Figure 3. Location of launches at Lock #3, Fisherman’s Landing, Lock #2 and Lazy J.

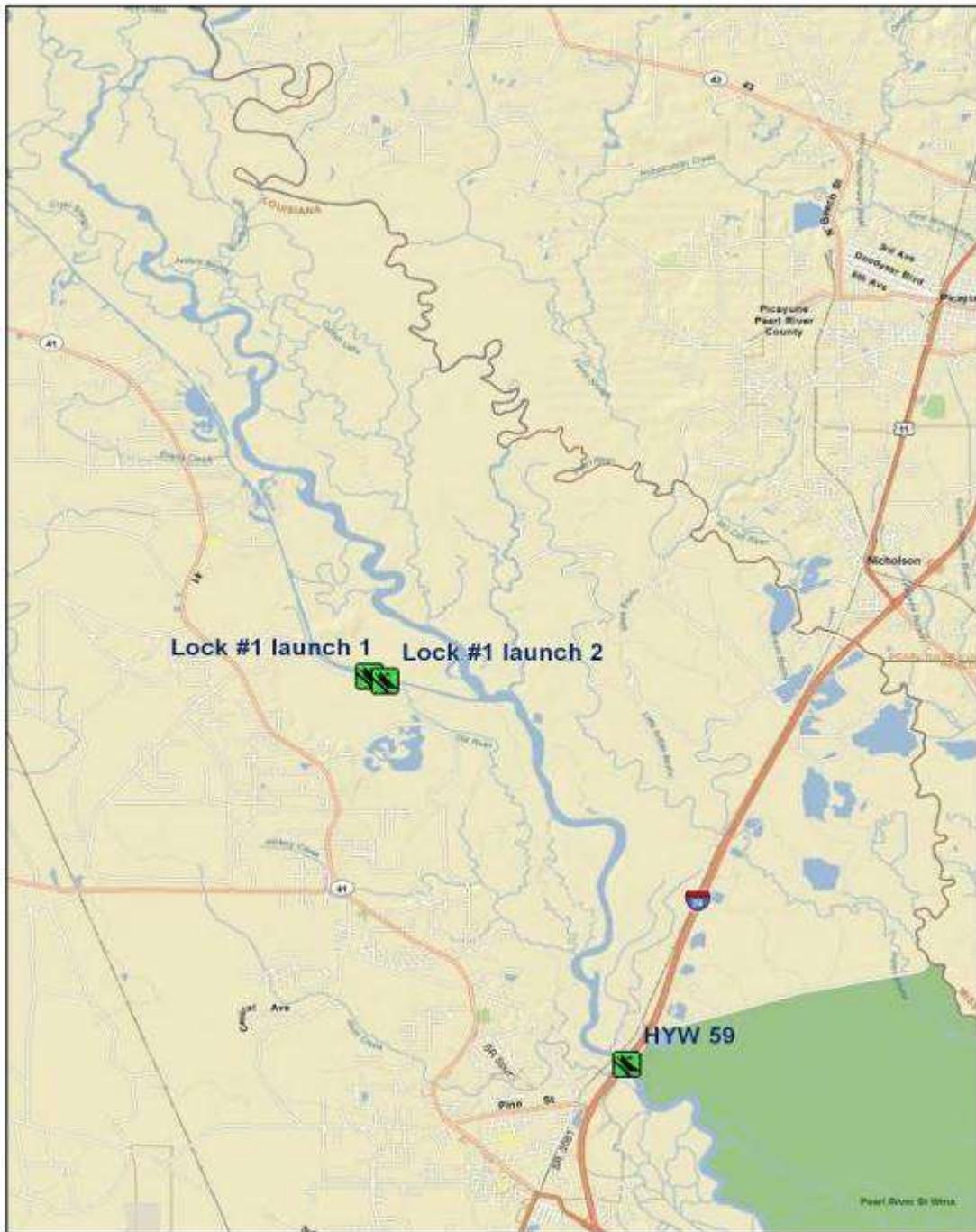


Figure 4. Location of Launches 1 and 2 at Lock #1 and at Hwy 59.

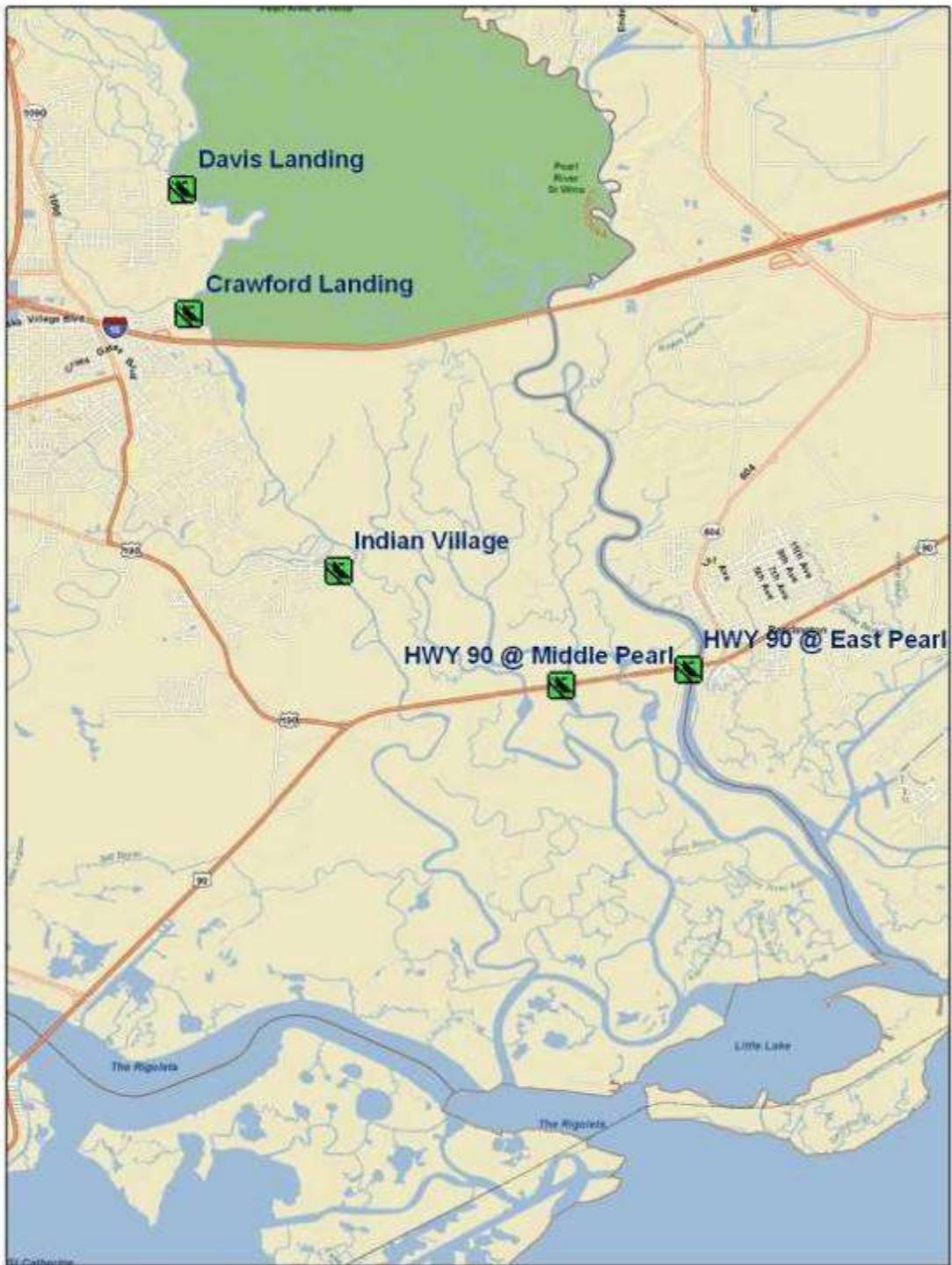


Figure 5. Location of Launches at Davis Landing, Crawford's Landing, Indian Village, Middle Pearl River, and East Pearl River