Slide MNPO – Monroe Navigation Project Office has navigation responsibilities on both the Ouachita-Black Rivers Navigation Project and J. Bennett Johnston Waterway. Louisiana Field Office has recreation and natural resource management responsibilities along both waterways.

Slide Navigation – With four locks and dams on the Ouachita-Black Rivers and five on J. Bennett Johnston Waterway, our office has responsibilities in south central Arkansas and north central, central, and northwest Louisiana.

Slide Early Structures **-** Year round navigation on the Ouachita-Black Rivers began with a

 congressional authorization in 1915 resulting in a system of 6 locks and dams with

 lock chambers measuring 55' x 268'. This provided a minimum six and one-half foot

 slack water channel from the mouth of the Black River to Camden Arkansas. In

 1950, Congress authorized a four lock plan.

Slide Ouachita-Black Rivers Characteristics - The four locks and dams on this waterway

 help provide a minimum nine foot deep, 100 foot wide navigation channel. This

 slide shows the river mile at which each of the locks and dams are located from

 mile 0 which is the junction where the Black River empties into the Red River.

 This also provides the river miles between each of the locks and dams up to mile

 337, which is the location of Camden, Arkansas, the northernmost limit for the

 maintenance of a minimum nine foot channel.

Slide Jonesville Lock and Dam - Located 14 road miles south of Jonesville, LA. Operational in March 1972. During normal pool stages, a lift of 30 feet is required to get a vessel from the lower pool (downstream) to the upper pool (upstream). 92 river miles from Jonesville to our next lock and dam, Columbia.

Slide Columbia Lock and Dam - Located 4 road miles north of Columbia, LA. Operational in May 1972. During normal pool stages, a lift of 18 feet is required to get a vessel from the lower pool (downstream) to the upper pool (upstream). 109 river miles from Columbia to our next lock and dam, Felsenthal.

Slide Felsenthal Lock and Dam - Located 1 road mile east of Felsenthal, AR. Operational in September 1984. During normal pool stages, a lift of 13 feet is required to get a vessel from the lower pool (downstream) to the upper pool (upstream). 55 river miles from Felsenthal to our next lock and dam, H. K. Thatcher.

Slide H. K. Thatcher Lock and Dam - Located 2 road miles southeast of Calion, AR. Operational in July1984. During normal pool stages, a lift of 12 feet is required to get a vessel from the lower pool (downstream) to the upper pool (upstream). 56 river miles from Thatcher to the upper limit of the navigation project, Camden, AR.

Slide Tainter Gates – The tainter gates on the dam regulate the low water pools above each lock and dam and are raised to pass high water resulting from heavy rainfall events. There are 5 gates on the dam at Jonesville Lock and Dam measuring 50 feet in width. There are 4 gates on the dam at Columbia measuring 50 feet in width. There are 3 gates on the dams at Felsenthal Lock and Dam and H. K. Thatcher Lock and Dam measuring 50 feet in width. There are 11 gates on the dam at Boggs measuring 50 feet in width. There are 6 gates on the dam at Lock and Dam No. 3 measuring 60 feet in width and remaining three locks and dams have 5 gates on the dam measuring 60 feet in width.

Slide Lock Chamber – The lock chambers are used for the passage of vessels from one navigation pool to the next. The dimensions are 84 feet wide and 600 feet long on the Ouachita-Black Rivers. This will allow for the single passage of a commercial tow two barges wide and two barges deep (a total of four barges) along with the towboat. The dimensions of the lock chambers on J. Bennett Johnston Waterway are 84 feet wide and 705 feet long. This will allow for the single passage of a commercial tow two barges wide and three barges deep (a total of six barges) along with the towboat. Barges measure 35 x 195 or 40 x 200.

Slide Navigation Pass – The locks and dams on the Ouachita-Black Rivers have navigation passes which allows for the passage of vessels when high water inundates the lock chamber. On the J. Bennett Johnston Waterway, when water levels rise to within 2 feet of the top of the lock walls, operation of the locks will cease until the water level falls below this level. This can reasonably be expected to occur once in ten years.

Slide Vessel Types – United States Government vessels, passenger vessels, commercial vessels, and pleasure craft have used the lock chambers. The vessel arriving first at a lock will be first to lock through. In the case of vessels approaching the lock simultaneously from opposite directions, the vessel approaching at the same elevation as the water in the lock chamber will be locked through first. Precedence shall be given to vessels belonging to the United States, passenger vessels, commercial tows, and pleasure craft in that order.

Slide Vessel Lockage – This chart shows the number of commercial and recreational lockages at each lock and dam on the Ouachita-Black Rivers for calendar year 2017. Commercial lockages include passenger boats, ferries, federal government vessels with and without barges, and commercial towboats with and without barges. Recreational lockages include houseboats, runabouts with small cabins or open-bow areas, pontoon boats, jon boats, personal water craft, and canoes. One barge is equivalent to 15 jumbo hopper railroad cars and 58 large semi trucks.

Slide O-B Commodity Tonnage – Some of the products that are shipped on the Ouachita-

 Black Rivers. In CY2017, a total of 797,087 tons of commodities were

 transported to fuel storage facilities (Archie Terminal, Red River Terminal),

rock yards (Harrisonburg D&J, West Monroe D&J, Riverton Rock Yard), and grain facilities (Bunge) along this waterway.

Slide Recreation – The LFO manages nineteen public use areas on the Ouachita-Black Rivers and ten areas at the locks and dams and two visitor centers on the J. Bennett Johnston Waterway. Boat ramps provide river access, picnic units for grilling, open areas for volleyball, horseshoes, sunbathing, or throwing footballs or baseballs, playgrounds for younger visitors, and shoreline for bank fishing. In CY 2017 there were 727,960 visitors recreating on the Ouachita-Black and 155,070 visitors on the J. Bennett Johnston Waterway.

Slide Special Events – Two special deer hunts occur annually at Columbia Lock and Dam. Eight participants hunt from covered blinds using muzzleloaders, shotguns and/or crossbows. The blinds are strategically placed near food plots and automatic feeding systems while maintaining a safety corridor. Besides the hunter, an observer and an assistant are in the blinds. Fifteen deer, one six point, were taken during the Northeast Louisiana Patriot Hunt this past December. Eight wounded warriors from the various military services participated in the one day hunt. Three deer were taken in the Civilian Disability Hunt this past January. River Sweep in September. Water Festival at Boardwalk.

Slide Resource Management – Annual eagle survey is conducted in January on 198 river

miles from Camden, AR to Logtown, LA. Six eagles were spotted this year, four on Ouachita-Black and two at Bayou Bodcau. Thirteen acres of food plots are planted at Columbia Lock and Dam in September/October with ryegrass, oats and wheat. Ten mineral stations are maintained throughout the year. Least tern surveys are conducted along 310 miles of the Red River in June, July, and August from Index AR to Fort Buhlow, LA. Total birds sighted were 254, 131 adults and 123 juveniles. High water last couple of years has been beneficial in the creation of new sandy islands within the revetments along the river. Partnerships include U. S. Fish and Wildlife Service, Shreveport Bird Study Group, and LSU- Shreveport. One hundred thirty bluebird nesting boxes are maintained throughout the projects with monthly checks and nest data collection April through July. We had 46% fledging rate this year.

Slide Dikes and Dike Markers – Pile and stone dikes have been constructed in some

 reaches of the JBJWW where the navigable channel has been difficult to

 maintain. These dike systems have been effective in reducing low water flow in

 secondary channels and point ways, restricting the wide reaches and holding the

 channel in good alignment for navigation. Our office completed the placement of

 68 permanent dike markers along the river to improve the ability of mariners to

 safely navigate during periods on high water and reduce the risk that dikes will

 be struck during such periods.

Slide Dredging – Dredging is another method used to maintain the minimum navigation channel. Survey crews from our office make before and after dredge surveys to determine the locations for dredging on the river and to measure the river depth following dredging.

Slide Maintenance **–** The maintenance of the locks and dams and the recreation facilities is

 the responsibility of the lock and dam personnel and/or the River Operations

 Maintenance Section. Some repairs are necessitated by the normal wear and

 tear through operation and use such as repairs to tainter gates. Other maintenance is

 required as a result of climatic conditions, such as drift removal from the locks and

 dams during high water or silt removal from boat ramps following high water.

 Unfortunately. some repairs occur do to the destructive nature of some individuals.

Slide Backlog Maintenance – A priority backlog maintenance item is the construction of

 stoplog slots at H. K. Thatcher Locks and Dam. The poiree dams that were used to

 dewater these locks and dams were found to be structurally unsound due to failure of

 critical welds. As a result, the construction of stoplog slots into the lock walls above

 and below the miter gates is necessary so that the stoplogs on the Red River

 Waterway can be used on the Ouachita-Black for dewatering. This construction has

 been completed at Jonesville Lock and Dam, Columbia Lock and Dam, and

 Felsenthal Lock and Dam. Other backlog maintenance items include replace

 lockwall grating, inspection and needed repairs to miter gates and tainter gates, and

 repairs to roadways and boat ramps at public use areas.

Slide High Water – High water brings problems of its own. Handrails and safety equipment

 must be removed from the lock walls prior to water inundating the walkways and

 miter gates. The more intense tasks occurs after the water recedes as driftwood must

 be removed from above the lock approaches and within the lock chamber. Buoy lines

 have to be repositioned, walkways and parking lots washed down, and machinery,

 hydraulic lines and electrical trays inspected. Some years this is done up to four times

 at a lock and dam. This year 5 out of 5 lock chambers were closed to navigation on

 JBJWW as lock chambers were unusable. Waggonner was closed 38 days, Long 22

 days, Lock 3 17 days, Overton 26 days, and Boggs 17 days. Jonesville L&D

 navigation pass was used for 121 days, Columbia Lock and Dam for 58 days,

 Felsenthal L&D for 75 days and H. K. Thatcher L&D for 113 days.

Slide Columbia Lock – Columbia Lock was closed to commercial traffic on 3 July 2018 as engineers from the Vicksburg District inspected the landside lock chamber wall as well as seepage and boil areas to determine impact to the structure and eventual remediation work on repairing the structure and minimize future risks. The Columbia upper navigation pool has been lowered three feet from normal pool stage and the Jonesville upper navigation pool has been raised one foot from normal pool stage to reduce pressure on the structure at Columbia as inspections and observations of the structure continued. Impacts will be noted at boat ramps, docks, and swimming areas due to the lowering of the upper pool. A readiness exercise was conducted in West Monroe that covered three scenarios concerning the Columbia Lock and Dam and river levels. This meeting was well attended by industry, local governments, and stakeholders. Conference calls have been held with Ouachita River Valley Association (ORVA) members and industry providing updates on the situation at Columbia. The closure of the lock has and will continue to impact the number of commercial vessel passages during 2018. The structure remains stable, but we are prioritizing the repair work that is necessary to eventually resume navigation on the lock. The technical position (from MVK E&C, LSC, and INDC) is that only fully completed repairs will be sufficient to make a risk informed decision to begin using the lock again. Massman has pumped 147.5 cu yds of tremie concrete and 20 cu yards of grout underneath the approach slab. We are scheduled to place tremie concrete 17 DEC in the landside lock wall. Hayward Baker has drilled 4 holes downstream on the gate sill with measurements in 3 of the 4 holes so far. We expect to complete drilling 8/18 holes in the gate sill 15 DEC and begin drilling on the downstream approach slab 17 DEC. Griffin has completed 12 of 15 relief wells. Expectation is to complete all relief wells NLT 21 DEC. MVK hosted a town hall meeting Dec. 12 at the Columbia project office to brief the status of the repair work and the condition of the structure.