

Annual Report – Calendar Year 2020
Kentucky Wetland and Stream Fee-In-Lieu-Of Mitigation Program

In Accordance with
“Modification of the Agreement Concerning In-Lieu Mitigation Fees between the
U.S. Army Corp of Engineers and
the Kentucky Department of Fish and Wildlife Resources”

LRL-2010-325
LRN-2011-00709
MVN-2011-521

February 2021
Rev. August 2021

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Introduction

This report provides information on the Kentucky Wetland and Stream Mitigation “Fee In-Lieu of” (FILO) Program sponsored by the Kentucky Department of Fish and Wildlife Resources (KDFWR) for the calendar year 2020 (CY20). This report refers to two periods in time called pre-Transition and post-Transition. October 2002 until January 2012 is considered pre-Transition. During this time, the FILO program operated under the “Agreement Concerning In-Lieu Mitigation Fees between Kentucky Department of Fish and Wildlife Resources and U.S. Army Corps of Engineers.” This Agreement established that the Wetland and Stream Mitigation Trust Fund within KDFWR may receive mitigation in lieu-fees from Department of Army permittees and in exchange, KDFWR would identify, assess, and implement stream and wetland restoration opportunities in Kentucky.

In January 2012, the Agreement was replaced to comply with the 2008 Mitigation Rule (USACE 2008) and the resulting document is referred to as the Instrument (USACE 2011). This “Transition” from Agreement to Instrument separates pre-Transition and post-Transition. This is the ninth annual report since transitioning the program to comply with the 2008 Mitigation Rule. It is the third annual report under the most recent modification of the Instrument between the U.S. Army Corps of Engineers (USACE) and KDFWR (USACE 2018), which added the Northern Kentucky Service Area. The report includes information required under the terms of the Instrument and additional information related to the program for activities in CY20. The report includes program activities in the Louisville, Nashville, and Memphis USACE district offices.

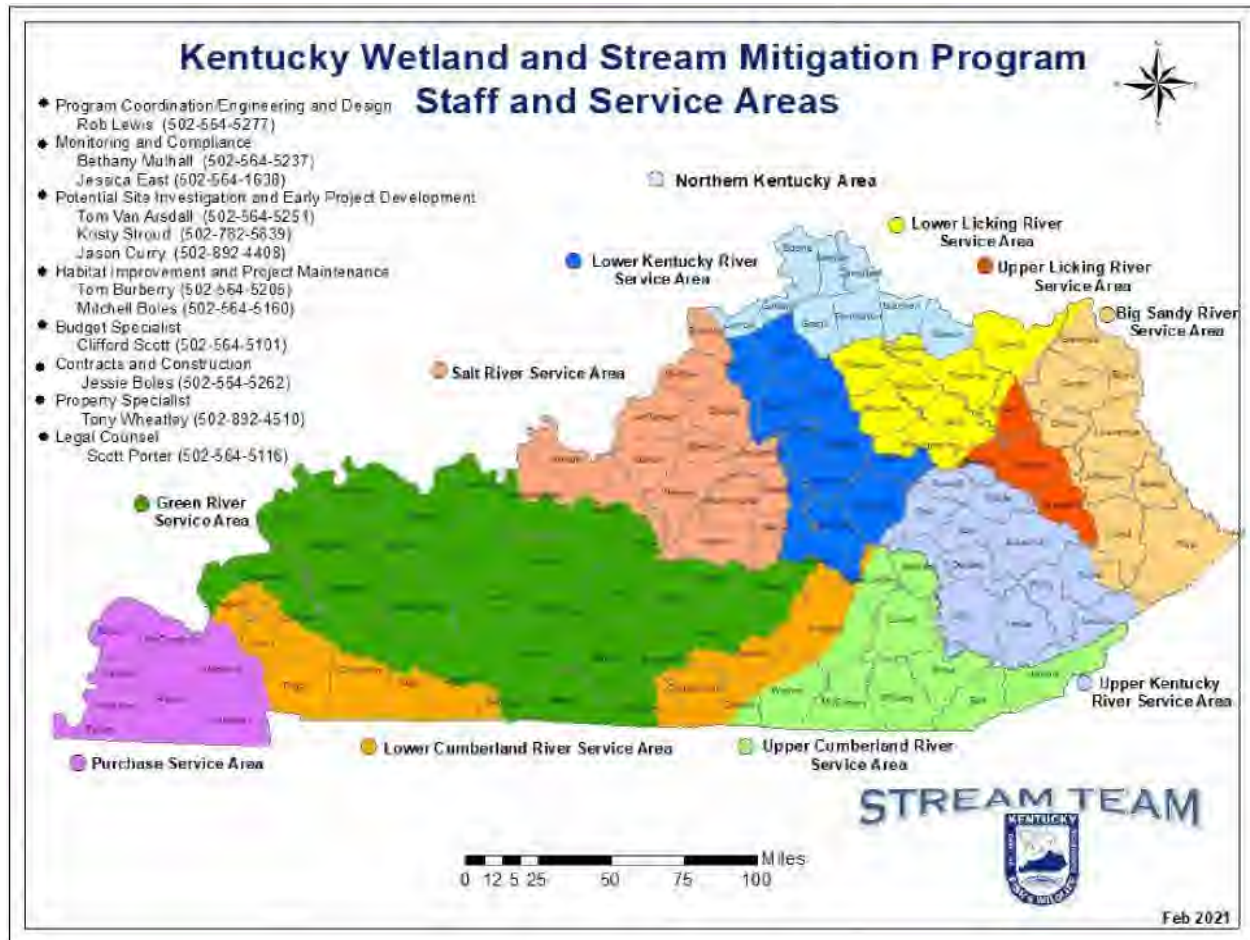
In July 2000, the Kentucky Legislature KRS 150.255, established The Kentucky Wetland and Stream Mitigation Fund. The KDFWR Wetland and Stream Mitigation Program manages this fund to provide a consistent and successful approach to fulfill compensatory mitigation requirements associated with the Clean Water Act Section 404 and Section 401, which are administered respectively by the USACE and the Kentucky Division of Water (KDOW). A Section 404 permit from the USACE and a Section 401 Water Quality Certification from KDOW are needed for activities that cause the permanent loss of streams or wetlands. These permits require compensatory mitigation for the losses. The intent of the mitigation is to offset the permanent loss of stream and wetland habitat within a defined watershed or regional area.

One option for 404 permit applicants to satisfy compensatory mitigation requirements is to purchase mitigation credits in-lieu of performing the mitigation themselves. This method of mitigation is termed “in-lieu fee mitigation.” The FILO program is a KDFWR-sponsored in-lieu fee mitigation program that is supported by sales of mitigation credits to Section 404 permit applicants to satisfy regulatory requirements. The monies generated pay for stream and wetland projects that improve degraded habitat in streams and wetlands throughout the Commonwealth.

The USACE has Instruments with two separate in-lieu fee programs (or sponsors) in Kentucky: Northern Kentucky University (NKU) and KDFWR (**Figure 1**). The Instruments between the sponsors and the USACE ensure that the mitigation completed is sufficient to compensate for losses, provides permanent protection and long-term management, and adheres to applicable federal and state regulations and guidelines. By accepting in-lieu fee payments, the sponsor is assuming responsibility to provide compensatory mitigation pursuant to the terms of the

Instrument established with the USACE. By purchasing credits from an in-lieu fee program, developers seeking USACE permits are relieved of mitigation obligations. The Instrument defines the roles of an Interagency Review Team (IRT) composed of the USACE, KDOW, and U.S. Fish and Wildlife Service (USFWS), pursuant to federal rules. The U.S.

Figure 1: Kentucky Wetland and Stream Mitigation Program Staff and Service Areas



Environmental Protection Agency (USEPA) is not a signatory agency to the Instrument but can provide comments on individual mitigation projects during the USACE permit process. The function of the IRT is to review and comment on proposed projects, monitoring reports, remedial management measures, credit releases, and instrument modifications. The USACE consults with the IRT to provide oversight of mitigation programs. Although there are four USACE districts in Kentucky (Memphis, Nashville, Huntington, and Louisville), the Louisville District is the Lead District for communicating with the sponsor and coordinating with the IRT on issues related to the Instrument and it has assumed jurisdiction for Section 404 regulatory projects in the Huntington District's region of Kentucky. The individual districts are responsible for specific issues with projects under their jurisdiction.

Mitigation projects are implemented on private or public lands and on lands owned or acquired by KDFWR; therefore, the success of the program is in part dependent on cooperation of landowners.

Under additional restrictive selection criteria, the program also has the capability of preserving high quality aquatic resources through acquisition of properties with such resources and permanently protecting those areas through legal instruments and management. The Instrument requires that all KDFWR in-lieu fee projects be permanently protected through conservation easements, the purchase of lands with deed restrictions, or long-term management plans on public properties such as U.S. Forest Service National Forest lands. For private lands, this involves identifying landowners willing to cooperate with the sponsor to donate or sell a conservation easement or to sell the property in fee-simple.

Updated Agreement and Instrument Modifications

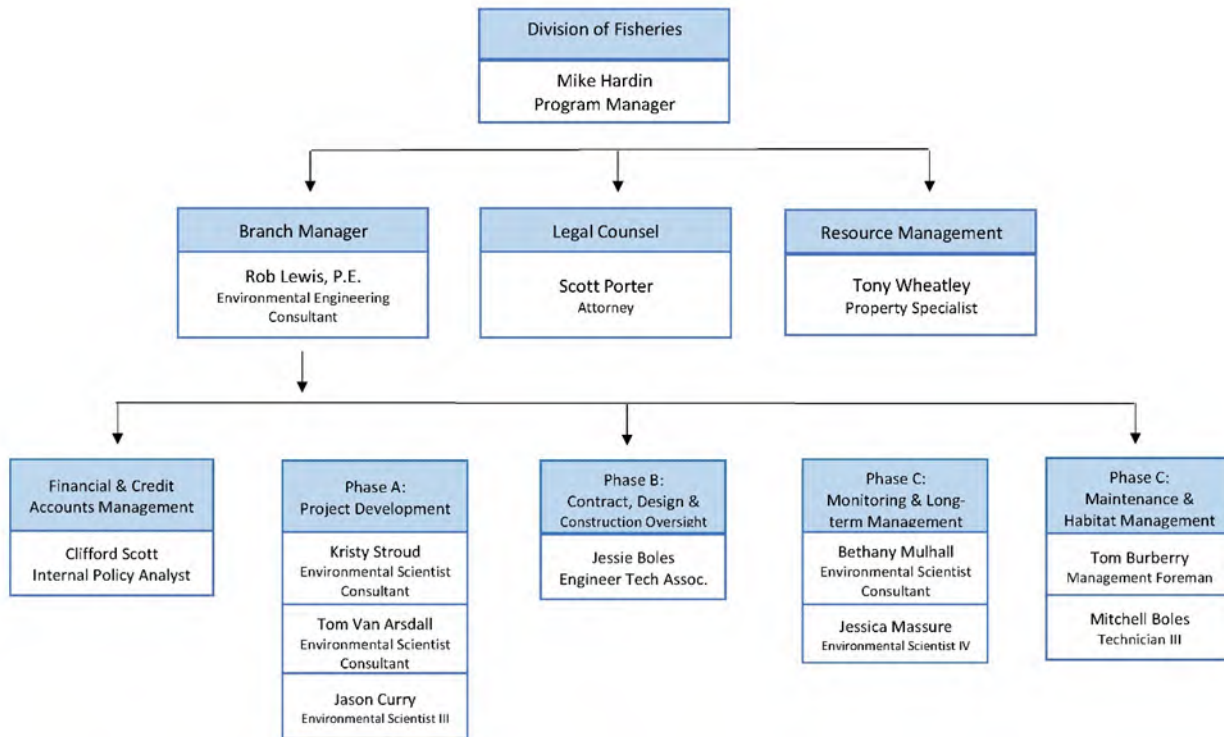
The Instrument went into effect on January 13, 2012 by Public Notice from the USACE. Its purpose was to comply with the 2008 Final Mitigation Rule (USACE 2008). The Instrument delineated service areas into ten units: Upper Kentucky River, Lower Kentucky River, Upper Cumberland River, Lower Cumberland River, Upper Licking River, Lower Licking River, Big Sandy River, Green River, Salt River, and Jackson Purchase Service Areas. In early 2018, a Modification to the Instrument added a Northern Kentucky Service Area comprised of nine counties overlapping with NKU's Instrument. Mitigation credits can now be purchased from either NKU or KDFWR in these nine counties (**Figure 1, and Appendix B, Figure 14**). Ecological Integrity Units (EIUs) are mitigation credit units calculated by the Eastern Kentucky Stream Assessment Protocol (EKSAP) used in the Big Sandy River, Upper Licking River, Upper Kentucky River and Upper Cumberland River service areas. Adjusted Mitigation Units (AMUs) are mitigation credit units calculated by the Kentucky Assessment Protocol (KAP) used in the remaining service areas of the Commonwealth. Adjusted Mitigation Units for wetlands (also called AMUs) are used statewide.

Sixteen projects have been permitted since early 2012 under the USACE Letter of Permission (LOP) process. USACE adds each project to the Instrument as modifications (**Appendix D**). There were no projects permitted in CY20.

FILO Staff and Assignments

Most FILO workload is allocated functionally into program operation and project stages: Financial and Credit Account Management; Phase A – Project Development; Phase B – Design and Construction; Phase C – Monitoring and Long Term Management. However, FILO staff often combine into teams to assist in any phase as needed. In CY20 FILO added a property specialist specialist and an attorney for counsel on titles, leases, contracts and other legal documents. The flowchart below depicts FILO's current organization (Figure 2)

Figure 2: FILO Staff Organizational Chart



Landowner Contacts and Potential Project Site Visits

Potential project site visits made by FILO staff in CY20 are shown in **Table 1**; the table does not reflect the many landowner and realtor contacts that did not result in site visits. Consultants were used to locate potential projects in the Big Sandy, Upper Licking, Upper Kentucky, Upper Cumberland, Lower Cumberland, Green, and Northern Kentucky service areas. The table only shows sites visited by FILO staff and does not depict the complete effort of consultants.

Table 1. Initial Site Visits in CY20

Service Area	Site Name	County	Public or Private	Project Type	Land Protection	Potential Project
Big Sandy	Mart Whitt II	Elliott	Private	Stream	Fee Simple Purchase	Yes
Green River	Gabbard Branch	Butler	Private	Stream and Wetland	Fee Simple Purchase	Yes
Lower Cumberland	Crow Creek	Clinton	Private	Stream	Fee Simple Purchase	Yes
Lower Cumberland	Cypress Creek	Livingston	Private	Wetland	Fee Simple Purchase	Pending
Northern Kentucky	Tribs to Gunpowder / Riddles Run	Boone	Private	Stream	Conservation Easement	Yes
Northern Kentucky	Trib to Twelve Mile	Campbell	Private	Stream	Conservation Easement	Yes
Northern Kentucky	Second Creek	Boone	Private	Stream	Fee Simple Purchase	Yes
Northern Kentucky	Meadow Land	Boone	Private	Stream and Wetland	Conservation Easement	Yes
Northern Kentucky	Duke Energy	Boone	Private	Wetland	Conservation Easement	Pending
Salt River	North Fork Curry	Oldham	Private	Stream	Conservation Easement	No
Upper Kentucky	Oneida Baptist	Breathitt	Private	Stream	Fee Simple Purchase	Pending

Credit Costs and Status

The Instrument established 240,000 advance stream credits in each service area, except the Northern Kentucky Service Area, which established 100,000 advance stream credits. In addition, 100 wetland AMU advance credits were established in each service area except in the Green and Purchase service areas where 200 wetland AMU advance credits were provided.

In February 2020, the cost per stream credit for EIUs and AMUs was increased across all service areas except the Big Sandy Service Area (Table 2). At the same time the cost per wetland credit increased from \$49,500 to \$61,500 across all service areas.

Table 2. Credit Costs (\$)

Service Area	Stream						Wetland			
	Cost/Credit						Cost/AMU			
	Transition to 2012	Effective 03/2012	Effective 01/15/15	Effective 06/01/17	Effective 04/20/18	Effective 02/10/20	Transition to 07/15/14	Effective 07/15/14	Effective 04/20/18	Effective 02/10/20
Big Sandy (EIU)	610	650	755 ^a	710 ^a	950 ^a	820 ^a	30,000	45,840 ^a	49,500 ^a	61,500 ^a
Upper Licking (EIU)	610	610	755	710	710	750	30,000	45,840	49,500	61,500
Upper Kentucky (EIU)	610	610	755	710	785	870	30,000	45,840	49,500	61,500
Upper Cumberland (EIU)	610	610	755	710	755	880	30,000	45,840	49,500	61,500
Lower Licking (AMU)	215	240	300	280	300	350	30,000	45,840	49,500	61,500
Lower Kentucky (AMU)	215	240	300	280	285	330	30,000	45,840	49,500	61,500
Lower Cumberland (AMU)	215	240	300	280	355	415	30,000	45,840	49,500	61,500
Green (AMU)	215	240	300	280	335	400	30,000	45,840	49,500	61,500
Salt (AMU)	215	240	300	280	325	415	30,000	45,840	49,500	61,500
Jackson Purchase (AMU)	215	240	300	280	340	405	30,000	45,840	49,500	61,500
Northern Kentucky (AMU)					385	465			49,500	61,500

^aBig Sandy credit sales suspended November 17, 2014

In November 2014, credit sales were suspended in the Big Sandy Service Area due to: 1) the difficulty in finding mitigation projects meeting criteria (i.e. sites without mineral rights, property title or owner issues, or water quality issues); 2) the 3-year timeframe for initiating mitigation projects from the time fees were received was not going to be met due to the paucity of mitigation sites w/o mineral issues; and 3) several large tracts of land involving thousands of potential mitigation credits that would have covered the obligation could not be developed further because of oil and gas interests. Considering these three factors, it was determined the pace of finding successful projects in the Big Sandy Service Area would not likely keep up with the pace of sales. Credit sales had not been resumed by the end of CY20.

In CY20, FILO sold 10,078 stream EIUs, 93,460.5 stream AMUs, and 50.50 wetland AMUs (Tables 3, 3.1, 4, and 4.1). Table 3 and 3.1 show credit balances for streams and Table 4 and 4.1 show credit balances for wetlands in each service area. Appendix A presents individual credit sales.

Table 3. and 3.1. Advance Stream Credit Balances

<u>Stream EIU Regions</u>	<u>Big Sandy</u>	<u>Upper Kentucky</u>	<u>Upper Licking</u>	<u>Upper Cumberland</u>	<u>Stream EIU Totals</u>
Advance Credit Allocation	240,000	240,000	240,000	240,000	
CY2019 Credit Balance	203,781.66	209,298.37	226,326.40	229,562.49	
CY2020 Credits Sold	-	634.00	219.00	56.20	909.20
CY2020 Released Credits	-	-	-	-	
CY2020 Advance Stream EIU Balance	203,781.66	208,664.37	226,107.40	229,506.29	

<u>Stream AMU Regions</u>	<u>Lower Kentucky</u>	<u>Lower Licking</u>	<u>Lower Cumberland</u>	<u>Green</u>	<u>Salt</u>	<u>Jackson Purchase</u>	<u>Northern Kentucky</u>	<u>Stream AMU Totals</u>
Advance Credit Allocation	240,000	240,000	240,000	240,000	240,000	240,000	100,000	
CY2019 Credit Balance	221,481.80	210,440.93	179,338.59	189,082.94	117,624.96	237,151.51	7,123.50	
CY2020 Credits Sold	4,776.00	1,188.00	-	2,855.00	7,192.00	66.00	7,123.50	23,200.50
CY2020 Released Credits	1,561.00							1,561.00
CY2020 Advance Stream AMU Balance	218,266.80	209,252.93	179,338.58	186,227.94	110,432.96	237,085.51	-	

Table 4. and 4.1. Advance Wetland Credit Balances

WETLAND AMUs	<u>Big Sandy</u>	<u>Upper Kentucky</u>	<u>Lower Kentucky</u>	<u>Upper Licking</u>	<u>Lower Licking</u>	<u>Wetland AMU Totals</u>
Advance Credit	100.000	100.000	100.000	100.000	100.000	
CY2019 Credit Balance	93.439	79.250	86.668	85.780	97.420	
CY2020 Credits Sold	-	0.400	1.400	-	-	1.800
CY2020 Released Credits						-
CY2020 Advance Wetland AMU Balance	93.439	78.850	85.268	85.780	97.420	

WETLAND AMUs (con't)	<u>Upper Cumberland</u>	<u>Lower Cumberland</u>	<u>Green</u>	<u>Salt</u>	<u>Jackson Purchase</u>	<u>Northern Kentucky</u>	<u>Wetland AMU Totals</u>
Advance Credit Allocation	100.000	100.000	200.000	100.000	200.000	100.000	
CY2019 Credit Balance	81.259	76.057	139.012	53.937	196.880	69.300	
CY2020 Credits Sold	1.100	0.500	-	0.400	3.600	2.300	7.900
CY2020 Released Credits							-
CY2020 Advance Wetland AMU Balance	80.159	75.557	139.012	53.537	193.280	67.000	

Program Financial Status

In-lieu fees paid into the program are divided into three categories: Administrative, Reserve and Projects. Project funds are available for existing and new projects in corresponding service areas. During CY20, credit sales brought in \$10M total receipts, representing \$7.9M in project funds (Table 5). The Northern Kentucky Service Area and the Salt River Service area contributed the highest percentage of receipts (29% and 30% respectively) totaling just over \$5M. The Lower Kentucky River Service Area had credit sales resulting in over \$1.4M in receipts and representing 15% of the total credit sales (Table 5). The largest category of receipts came from Development at 79% (Table 6). The KY Transportation Cabinet purchased the second highest number of credits representing 16% of the total.

Table 5. CY20 Service Area Receipts and Project Funds (\$)

<u>Service Area</u>	<u>CY2020 Total Receipts</u>	<u>CY2020 Receipts to Reserve</u>	<u>CY2020 Receipts to Admin</u>	<u>CY2020 Receipts to Projects</u>	<u>CY2020 Beginning Project Balance Stream & Wetland</u>	<u>CY2020 Ending Project Balance Stream & Wetland</u>	<u>CY2020 Service Area % of Receipts</u>
Big Sandy	-	-	-	-	18,749,173	18,749,173	0%
Upper Kentucky	576,180	57,618	57,618	460,944	18,599,920	19,060,864	6%
Lower Kentucky	1,490,924	149,092	149,092	1,192,739	5,046,306	6,239,045	15%
Upper Cumberland	117,314	11,731	11,731	93,852	7,770,807	7,864,658	1%
Lower Cumberland	30,750	3,075	3,075	24,600	13,256,714	13,281,314	0%
Upper Licking	164,250	16,425	16,425	131,400	7,768,826	7,900,226	2%
Lower Licking	415,800	41,580	41,580	332,640	7,966,333	8,298,973	4%
Salt	3,001,352	300,135	300,135	2,401,082	28,814,123	31,215,205	30%
Green	1,142,058	114,206	114,206	913,646	11,569,605	12,483,251	11%
Jackson Purchase	248,130	24,813	24,813	198,504	737,627	936,131	2%
Northern Kentucky	2,879,198	287,920	431,880	2,159,398	28,057,811	30,217,210	29%
TOTALS	10,065,956	1,006,596	1,150,555	7,908,805	148,337,245	156,246,049	100%

Table 6. FILO Receipts by Source – CY20

<u>Source</u>	<u>Receipts (\$)</u>	<u>% of total</u>
KY Transportation Cabinet	1,579,088	16%
Municipal	410,800	4%
Development	7,990,234	79%
Utilities	0	0%
Mining	0	0%
Other (closed/transitioned funds)	85,834	1%
Total	10,065,956	100%

Project Fund Status

Table 7 shows: 1) project funds received for streams and wetlands in each of the eleven service areas post-Transition through CY20; 2) funds currently allocated to “approved” projects; and 3) funds unallocated at the end of the year. For purposes of understanding the balance of in lieu fee funds and project activity it is important to define terms and accounting protocols internal to the state. Capital accounts are established for each in lieu fee mitigation project. Property, design, construction, planting, and monitoring costs are paid out of the capital accounts specific to each mitigation project. The current protocol for funding in lieu fee mitigation projects does not allow all mitigation project funds to be moved into the respective capital account at the start of a project. Instead, mitigation project funds are moved into capital accounts in stages: first, property funds are moved, then design, and lastly construction funds. Because of this practice, program staff must track the amount of funds necessary to complete all phases of mitigation projects as “allocated” funds. Allocated funds are defined as the amount of funds which are tracked as necessary to complete all phases of a mitigation project. Funds are allocated to mitigation projects soon after the Corps of Engineers provides the initial support letter for a mitigation project under the Letter of Permission (LOP) permitting process. Allocated funds must be tracked by program staff and are not tracked in the state’s electronic accounting system, eMars. Because of this practice, the program cash balance includes funds that are allocated to mitigation projects and because these allocated funds will be necessary to complete construction they will have to be moved out of the fund account and into the respective capital accounts last. Also, because construction funds are the largest amount in any mitigation project the cash balance has a large percentage that is allocated to mitigation projects and therefore is not truly reflective of project related activity. Unallocated funds are defined as those funds not dedicated to mitigation projects or which are programmatic funds (Administrative and Reserve funds). Approximately \$138.7M is allocated to stream projects and roughly \$23.9M of stream project money is un-allocated, mostly in the Salt, Big Sandy, and Upper Kentucky River service areas. Approximately \$14.7M is over-allocated in the Lower Licking, Lower Kentucky, Upper Cumberland, Lower Cumberland, Upper Licking, Green River, and Jackson Purchase service areas. The Reserve might be used to cover over-allocations.

Over \$8.2M in project funds has been collected for wetland mitigation since the Transition (Table 7), with about \$2.9M allocated, mostly in the Green River Service Area. Approximately \$5.3M of wetland funds is unallocated, mostly in the Salt River Service Area.

Table 7. Allocated and Unallocated Project Funds for Stream and Wetland by Service Area (\$)

Basin	Stream			Wetland		
	Project	Allocated	Unallocated	Project	Allocated	Unallocated
Big Sandy	18,597,032	13,169,206	5,427,826	152,141	3,600	148,541
Upper Kentucky	18,306,922	7,801,480	10,505,442	753,941	193,136	560,805
Lower Kentucky	5,768,097	6,789,621	(1,021,524)	470,948	133,620	337,328
Upper Cumberland	7,272,766	9,494,561	(2,221,795)	591,893	0	591,893
Lower Cumberland	12,620,372	13,383,914	(763,542)	660,943	0	660,943
Upper Licking	7,411,343	10,517,501	(3,106,159)	488,884	340,966	147,918
Lower Licking	8,213,554	14,888,543	(6,674,990)	85,419	0	85,419
Green	10,538,502	11,466,503	(928,000)	1,944,749	1,646,217	298,532
Salt	29,594,282	27,658,016	1,936,267	1,620,922	97,854	1,523,068
Jackson Purchase	683,582	114,310	569,272	252,549	272,166	(19,617)
Northern Kentucky	28,974,985	23,493,018	5,481,967	1,242,225	295,404	946,821
Total	147,981,435	138,776,671	23,920,773^a (14,716,009)^b	8,264,614	2,982,963	5,301,268^a (19,617)^b

^aTotal of Unallocated funds

^bTotal of over-allocated funds (currently covered by Reserve funds)

Reserve Fund

Pursuant to the Instrument, the Reserve Fund was established as additional financial assurances to fund contingency actions and long term management. The Reserve Fund functions as an endowment and insurance to cover shortfalls in meeting credit obligations, contingency needs and maintenance costs. It pays for additional mitigation projects, permanent protection activities, minor repair actions, and other activities not funded through service area or administrative accounts. Contributions to the Reserve Fund come from a percentage of credit sales, currently set at 10% of credit sales, and a percentage of accumulated interest currently set at 90% of accumulated interest. A non-wasting amount of \$3M was designated for the Reserve Fund. The balance of funds above the non-wasting limit is referred to as the “Active Reserve.” These funds can be spent for remedial actions or additional projects that generate a surplus of credits subject to approval by the Corps of Engineers.

The contribution to the Reserve Fund during CY20 from credit sales and interest was \$3,910,620. The total Reserve Fund at the end of CY20 was \$19.8M, which results in an active Reserve Fund of \$16.8M when accounting for the \$3M non-wasting Reserve Fund required by the Instrument. **Table 8** gives a full accounting of the Reserve Fund, including those funds currently projected as needed in nine service areas with an over-allocation of project funds. The over-allocation of project funds potentially generates mitigation credits with completed projects ‘on the ground’ in advance of

impacts helping to address the 3-year timeframe requirement or to generate additional mitigation credits that provide insurance against shortfalls that could be incurred with other mitigation projects in the same service area. Additional receipts in the respective service areas received prior to initiation of a mitigation project will be used instead of the Reserve Fund, as use of the Reserve Fund would then be unnecessary. These additional receipts will reduce, if not remove, the need to ‘cover’ these over-allocated service areas with the Reserve Fund. In some cases, project receipts could also be used to refund the Reserve Fund, depending on the timing and scale of receipts and the needs in a service area.

Each year, the program seeds a long term management and maintenance account with funds from the Reserve Fund to pay for management and minor remedial actions (**Table 8**). This allows the program to be responsive to the USACE and IRT directives in taking necessary remedial or maintenance actions in addition to undertaking planned long term management tasks.

Table 8. CY20 Reserve Fund Activity and Balance (\$)

Beginning CY2020 Reserve Cash Balance	33,313,613	
% of CY2020 stream receipts	948,501	Sales and closed/transitioned funds
% of CY2020 wetland receipts	58,095	Sales and closed/transitioned funds
CY2020 Interest Distribution	2,904,024	Interest distribution - 90%
Long Term Maintenance 2015	94,732	Close/return unused funds
Long Term Maintenance	(50,000)	Additional funding
Bolts Fork Repair	(183,490)	AMP Repairs
Trammel I Repair	(361,940)	AMP Repairs
E Fork Indian Repair	(553,790)	AMP Repairs
Salt Lick Repair	(176,290)	AMP Repairs
Ending CY2020 Reserve Cash Balance	35,993,455	
CY2020 project fund reserve coverage	(1,021,524)	Lower KY Stream allocation
CY2020 project fund reserve coverage	(763,542)	Lower Cumberland Stream allocation
CY2020 project fund reserve coverage	(2,221,795)	Upper Cumberland Stream allocation
CY2020 project fund reserve coverage	(6,674,990)	Lower Licking Stream allocation
CY2020 project fund reserve coverage	(3,106,159)	Upper Licking Stream allocation
CY2020 project fund reserve coverage	(928,000)	Green River Stream allocation
CY2020 project fund reserve coverage	(19,617)	Jackson Purchase Wetland allocation
Meadowland Full Delivery	(782,975)	Northern KY FD Contractual Reserve obligation
Big Lick Full Delivery	(648,262)	Salt River FD Contractual Reserve obligation
Ending CY2020 Reserve obligations	(16,166,862)	*Subject to USACE Approval
Reserve Balance after obligations	19,826,593	
Non-Wasting Reserve	3,000,000	
Ending CY2020 Active Reserve Balance	16,826,593	

Administrative Fund

The Administrative Fund is used for expenses associated with activities to operate the program and to identify new projects. Such activities include feasibility studies, consultant contracts for site searches, outreach and property work, staff salaries, equipment, and other indirect expenses such as travel and training. The Administrative Fund balance entering CY20 was \$14,318,349. During CY20, \$1,473,225 was added to the Administrative Fund from 10% of credit sales and 10% of the accumulated interest. **Table 9** details the use of the Administrative Fund during CY20, leaving a year-end balance of \$12,467,821. The CY20 total annual Operating Expenditures equaled \$1,246,605.

Table 9. CY20 Administrative Fund Activity and Balance (\$)

Beginning CY2020 Administrative Cash Balance	14,318,349	
% of CY2020 stream receipts	1,085,628	Credit sales and closed/transitioned funds
% of CY2020 wetland receipts	64,928	Credit sales and closed/transitioned funds
CY2020 Interest Distribution	322,669	Interest distribution - 10%
CY2020 operating expenditures	(1,246,605)	Payroll and operations cost
CY2020 Capital Fund Activity	(254,425)	Administrative Funded Capital Accounts
Ending CY2020 Administrative Cash Balance	14,290,545	
Meadowland Full Delivery (Northern Kentucky)	1,174,462	Northern KY FD Contractual Administrative obligation
Big Lick Full Delivery (Salt River)	648,262	Salt River FD Contractual Administrative obligation
Total FD administrative fund obligation	1,822,723	
Ending CY2020 Active Administrative Balance	12,467,821	

Mitigation of Impacts

Prior to the 2008 Mitigation Rule fully taking effect with the Instrument in early 2012, it was not possible to relate mitigation impacts caused by 404-permitted activities because in-lieu-fee payments to FILO had little documentation regarding the quantity, quality, and flow regime of stream impacts. This was especially true during the first few years of the in-lieu fee program. It was assumed that impacts and mitigation occurred on similar stream flow types, resulting in similar linear feet affected. Thus, the pre-Transition programmatic success was based on cost per linear foot that was established by the Corps of Engineers as a “base-rate” that was then used in a formula by the Corps of Engineers during the permitting process to determine a final in lieu fee payment amount. The program did not have access to permit applicant information regarding impact types and amounts. The available data could track only the amount of in-lieu fees received and the timing of the allocation of those funds to mitigation projects. With the implementation of the Instrument and the conversion of unallocated funds to credits, it is possible to compare impacts (Advance Credits sold by FILO) to mitigation (Advance Credits fulfilled by FILO) for projects

that began (approved by the IRT) post-Transition. Many of the projects reported here were permitted prior to the Transition.

Actions Taken by Interagency Review Team

Sixteen conceptual plans were submitted and fifteen virtual IRT site visit presentations were conducted in CY20 (**Table 10**). The IRT had the option of choosing to see the sites in person per Covid-19 guidance and two of those sites are scheduled to be in person site visits in March 2021. Ten of the sixteen projects were conceptually approved, five were still awaiting IRT comments at the end of CY20.

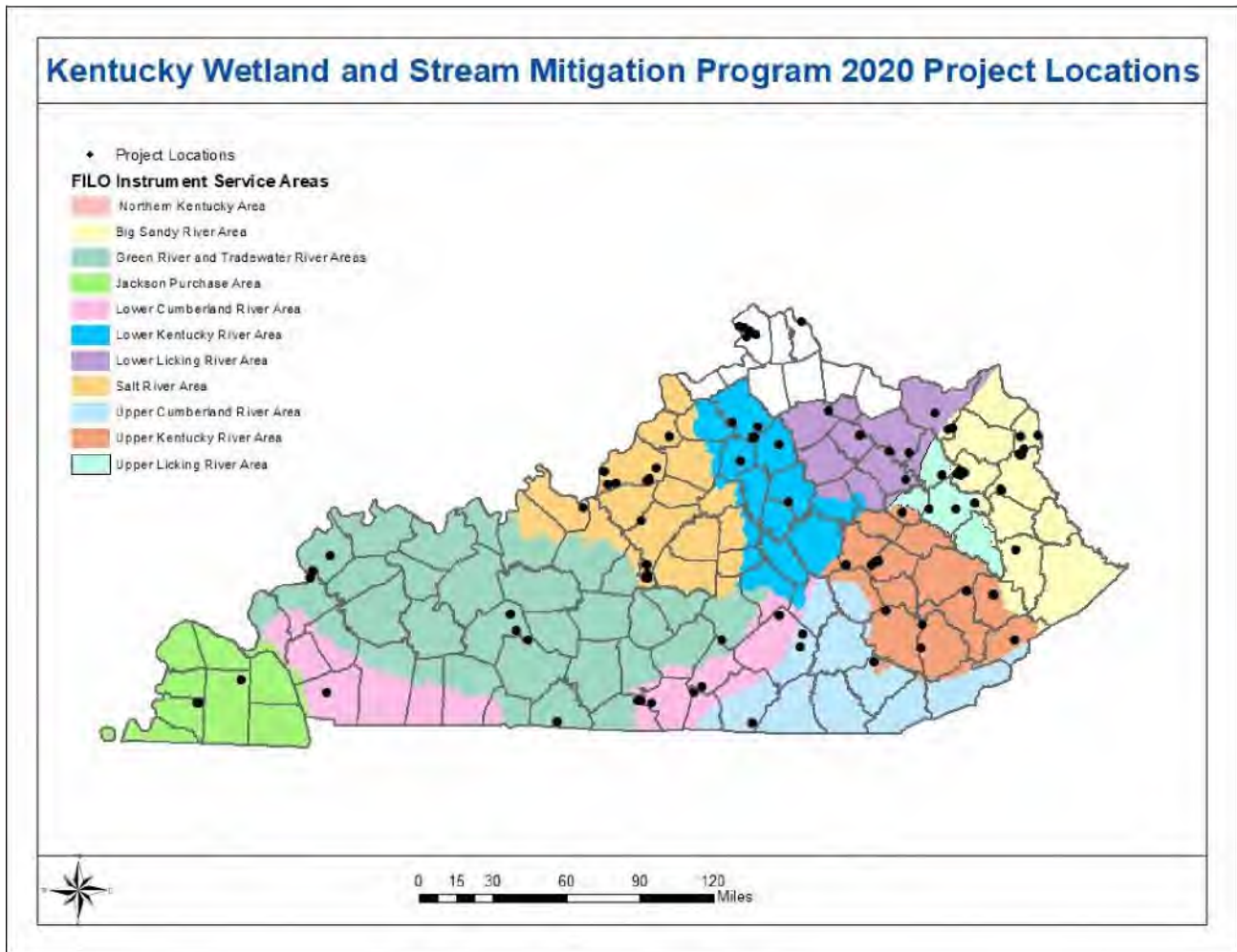
Table 10. CY20 Conceptual Plans Submitted, Actions of Interagency Review Team, Subsequent Activity

Project	Service Area	USACE District	County	Type	CP Submitted	IRT Site Visit	CP Status
Mart Whitt II	Big Sandy	Louisville	Elliott	Stream	7/20/2020	8/20/2020	Approved
Mud Camp III	Lower Cumberland	Nashville	Monroe	Stream	11/18/2020	1/14/2020	Pending
Crow Creek	Lower Cumberland	Nashville	Clinton	Stream	5/28/2020	7/14/2020	Approved
Mud Camp II	Lower Cumberland	Nashville	Cumberlan	Stream	5/1/2020	7/1/2020	Approved
St. Anne Wetland	Northern Kentucky	Louisville	Campbell	Wetland	10/20/2020	11/6/2020	Pending
Gunpowder I	Northern Kentucky	Louisville	Boone	Stream	12/2/2020	12/2/2020	Pending
Middle Creek II	Northern Kentucky	Louisville	Boone	Stream	4/14/2020	7/24/2020	Approved
Steep Creek	Northern Kentucky	Louisville	Boone	Stream	4/14/2020	7/24/2020	Approved
Meadow Land	Northern Kentucky	Louisville	Boone	Stream	3/18/2020	4/23/2020	Approved
				Stream and Wetland			
Gabbard Branch	Green River	Louisville	Butler	Stream and Wetland	3/1/2020	7/22/2020	Approved
Ross Creek 5	Upper Kentucky	Louisville	Lee	Stream	8/1/2020	3/5/2020	Pending
Ross Creek 6	Upper Kentucky	Louisville	Lee	Stream	8/1/2020	3/5/2020	Pending
				Stream and Wetland			
Mill Creek	Salt River	Louisville	Jefferson	Stream and Wetland	3/1/2020	10/5/2020	Approved
				Stream and Wetland			
Rolling Fork Floodplain	Salt River	Louisville	Larue	Stream and Wetland	7/1/2020	Pending	Approved
Rolling Fork River	Salt River	Louisville	Larue	Stream	8/1/2020	Pending	Approved
Bogardus Tract	Lower Kentucky	Louisville	Owen	Stream	12/1/2019	12/5/2019	Approved

Project Statistics and Status

The IRT has approved 149 projects over the FILO program’s 18-year history (2002-2020). Ninety-three projects have been completed or are in various stages of development (**Figure 3; Appendix B**). The IRT has approved 56 projects since the FILO program’s inception that were not constructed because of property issues such as mineral rights or title concerns, cost, because of landowner concerns, or other issues. These projects were terminated. (**Appendix B**).

Figure 3. Kentucky Wetland and Stream Mitigation Program CY20 Statewide Project Map.



Big Sandy River Service Area – Active Project Status

There are nine active projects in this service area and ten in the Long Term Management phase. These projects fall within the USACE Louisville District and the EKSAP region, which utilizes the EIU credit system (**Appendix B: Figure 4, Table 11**).

Bolts Fork, Boyd County. FILO submitted the Year 5 monitoring report in December 2018. Invasive species management occurred throughout the monitoring period and targeted multiflora rose, Johnson grass, autumn olive, and black alder. A bank repair was attempted in August 2018 at the upstream end of the project on the right descending bank. A “lighter-touch” approach was used with the intent to maximize the vegetative component in that area. Unfortunately, this effort was unsuccessful and a large rain event damaged the area before vegetation could establish. Efforts

to repair the area again with more aggressive techniques are underway utilizing a contract administered through the Finance Cabinet's Division of Engineering and Contract Administration. The "Request for Proposal" (RFP) was awarded in November 2020 with work schedule to commence in spring 2021. Supplemental planting will follow the repair. The KDFWR will seek monitoring release once repairs, planting and sufficient monitoring are complete.

Laurel Creek Gorge #2 (Greene-Johnson tracts), Elliott County. The property is now part of the Ed Mabry-Laurel Gorge WMA. It has been combined with other properties (Smith Property and Mart Whitt Fork) purchased around the WMA into one design-build project. In 2018, FILO received a Floodplain permit and applied for a 401 WQC. In 2019, FILO received concurrence for Section 7 of the Endangered Species Act and revised the Mitigation Plan to address comments from the IRT. In 2020, FILO received a 401 WQC and applied for a 404 permit.

Mart Whitt Fork, Elliott County. The property is now part of the Ed Mabry-Laurel Gorge WMA. It has been combined with other properties (Smith Property and Laurel Creek Gorge #2) purchased around the WMA into one design-build project. In 2018, FILO received a Floodplain permit and applied for a 401 WQC. In 2019, FILO received concurrence for Section 7 of the Endangered Species Act and revised the Mitigation Plan to address comments from the IRT. In 2020, FILO received a 401 WQC and applied for a 404 permit.

Mart Whitt Fork II, Elliott County. Approved by the IRT in 2020, this 180 acre property adjoins the Mart Whitt Fork project which is a part of the Laurel Creek Gorge WMA. It is expected to generate over 4,600 EIU credits.

Old Trace Creek, Lewis County. Approved in 2013, KDFWR purchased the property in March 2014. The design-build contract started in 2015 and construction began in 2017. Construction and planting were completed in early 2018, commencing the first year of monitoring. FILO submitted the Year 3 monitoring report in December 2020 with a credit release request letter. The tributaries to Old Trace Creek were repaired with rock toe and live stakes by KDFWR staff in early 2020. Old Trace was repaired by the original contractor in early 2020 under project construction warranty.

Smith Property, Elliott County. The 46-acre tract was purchased in November of 2015 and is an addition to the Ed Mabry-Laurel Gorge WMA. It has been combined with other properties (Mart Whitt Fork and Laurel Creek Gorge #2) purchased around the WMA into one design-build project. In 2018, FILO received a Floodplain permit and applied for a 401 WQC. In 2019, FILO received concurrence for Section 7 of the Endangered Species Act and revised the Mitigation Plan to address comments from the IRT. In 2020, FILO received a 401 WQC and applied for a 404 permit.

Staggs Branch, Lewis County. In 2020, FILO purchased the 440 acre property. Staggs Branch II, an additional tract upstream and adjoining Staggs Branch I was approved but no longer available for acquisition in 2020.

Whites Creek, Boyd County. In 2015, a landowner contract was signed, a contract for an easement survey was initiated, and the 30% design was completed, including a geotechnical exploration survey on a minor slide near the project area. In 2016, the Floodplain permit was received and in

2017, the Mitigation Plan was completed. In 2018, FILO received the 401 WQC. In 2019 and 2020, FILO worked towards finalizing the easement.

York Property, Elliott County. The project was approved in 2014 and it will add to the Ed Mabry-Laurel Gorge WMA. Several property issues are in the process of being resolved including an updated appraisal in 2020.

Upper Cumberland River Service Area – Active Project Status

There are two active projects in this service area and two in the Long Term Management phase. These projects are within the USACE Nashville District and the EKSAP region, which utilizes the EIU credit system (**Appendix B: Figure 5, Table 12**).

Burnett Branch, Wayne and McCreary Counties. FILO partnered with the KDOW Wild Rivers program to acquire the property for preservation and restoration. In 2015, the mineral rights were acquired on an initially excepted portion of the property. In 2016, FILO reassessed the entire property according to the Nashville USACE's new stream assessment protocol. In 2017, the property's deed was amended to include restrictions with language suitable to USACE. In 2018, the Mitigation Plan was completed and the project was put on public notice in preparation for the 401 WQC. In 2019, FILO submitted a Phase 2 Archaeological Survey Report for Section 106 of the National Historic Preservation Act and a Biological Assessment for Section 7 of the Endangered Species Act. In 2020, FILO received concurrence for Section 106.

Sinking Valley, Pulaski County. The Mitigation Plan for preservation was accepted in December 2013. This project has bi-annual monitoring requirements for 10 years with the most recent report submittal in 2019 (Year 5 of 10). KDFWR staff will continue to monitor the site in 2021 and submit the next report.

Lower Cumberland River Service Area – Active Project Status

There are five active projects in this service area and one in the Long Term Management phase. These projects are within the USACE Nashville District and the KAP region, which utilizes the AMU credit system. This service area has two distinct geographic areas in Kentucky, one in Western Kentucky and one in south-central Kentucky (**Appendix B: Figure 5, Table 13**).

Blue Spring Creek, Trigg County. The project is entirely within Lake Barkley State Resort Park with a substantial part on the park's golf course. In 2020, FILO started construction.

Hatchery Creek, Russell County. Construction began in August 2014 with final project completion in early 2016. FILO submitted the Year 5 monitoring report in 2020. A virtual compliance visit was held with the IRT in November 2020 to discuss project release options. A final decision is pending.

Mud Camp II and III, Cumberland County. Mud Camp I was an approved project but later terminated due to landowner. Mud Camp II property is roughly 800 acres and was purchased in 2020. Mud Camp III received IRT approval early 2021.

Crow Creek, Clinton County. Approved by the IRT in 2020, Crow Creek is 890 acres with Cumberland River frontage. It is expected to generate over 56,000 AMUs.

Upper Licking River Service Area – Active Project Status

There are four active projects in this service area and none in the Long Term Management phase. These projects are within the USACE Louisville District and the EKSAP region, which utilizes the EIU credit system (**Appendix B: Figure 7, Table 14**).

Broke Leg Creek, Morgan County. Approved in late 2016, this property has over 35,000 feet of stream length. In 2017, the landowner signed a land contract with the intent to donate a conservation easement. In 2018, a consultant continued to collect survey data and started on initial design work. In 2019 and 2020, FILO continued working on the Biological Assessment, the Phase 1 Archaeological Report, the Mitigation Plan, the design, and the easement.

Horse Mill Branch, Morgan County. IRT approved in 2018, this project would be a fee simple purchase of roughly 500 acres. It is expected to generate over 9,000 stream EIUs and up to 4.8 wetland AMUs. The project would be permanently protected with deed restrictions. In 2020, FILO prepared to purchase the 520 acre property and acquired in early 2021.

Morgan Co. Extension Wetland, Morgan County. The survey was completed in 2020. FILO will be closing on the property purchase in 2021.

Slabcamp Branch. The vast majority of the 2 square mile drainage area is on United States Forest Service (USFS) Property, but a non-USFS tract of land for is necessary access. A survey was completed in 2020. Acquisition was completed in early 2021, and an MOA with USFS is pending.

Lower Licking River Service Area – Active Project Status

There are three active projects in this service area and two in the Long Term Management phase. These projects are within the USACE Louisville District and the KAP region, which utilizes the AMU credit system (**Appendix B: Figure 8, Table 15**).

Big Farm, Bath County. The project was approved in 2014 and the 490-acre property was purchased in 2015. It is now part of the Clay WMA. Construction will be completed in early 2021.

Myers Station, Nicholas County. The 462-acre property was purchased in 2014 and became part of the Clay WMA. FILO submitted the Year 3 monitoring report in 2019. Some remedial actions are required on Coon and Cassidy Creeks on the southern portion of the property which should commence in 2021. Supplemental planting and invasive species work will continue on the site via contractor warranty and FILO staff. The small tributaries on the North side of the property are performing well. A credit release request letter was also submitted with the 2020 report.

Rock Lick Creek, Fleming County. Approved in 2017, this project will provide approximately 34,000 stream credits. The state-owned Maxey Flats property is roughly 1,000 acres and contains

a former radioactive waste disposal site. In 2018, FILO hired a consultant to start collecting data for a project design. In 2019 and 2020, FILO continued to collect data and design the project.

Salt Lick Creek, Bath County. The IRT and FILO conducted a compliance visit in early 2018, which prompted the IRT to request additional monitoring information. FILO submitted the remedial monitoring plan and monitoring release request in December 2018. The site was released by KDOW and USACE in October 2019. The site was in the LTM phase in 2020. Repair efforts are in place to correct some unstable banks, scheduled for spring 2021.

Upper Kentucky River Service Area – Active Project Status

There are seven active projects in this service area and seven in the Long Term Management phase. These projects are within the USACE Louisville District and the EKSAP region, which utilizes the EIU credit system (**Appendix B: Figure 9, Table 16**).

East Fork Indian Creek, Menifee County. The project is in the Daniel Boone National Forest, with permanent protection provided by the U.S. Forest Service (USFS) Management Plan. In 2019, FILO staff planted additional container trees to improve woody stem density and diversity. FILO also initiated a contract with Eastern Kentucky University to provide additional monitoring on fish passage throughout the project reach using PIT and VIE mark-recapture techniques. This effort continued through 2019 with a final report submittal in 2020. The Year 5 monitoring report was submitted in December 2020. There are some areas identified for repairs as noted in the 2019 report and during field visits. FILO has initiated a repair plan, with contract awarded in November 2020. The effort is scheduled to commence in summer 2021. Supplemental planting and monitoring will follow the repair.

Ross Creek 1 & 2, Lee and Estill County. The project is adjacent to the USFS Daniel Boone National Forest. The 640-acre property was purchased in 2014. In 2020, FILO completed construction of the project. Year 1 monitoring will commence in 2021.

Ross Creek 3, Lee County. This project was approved in 2017. In 2019, FILO purchased the 290 acre property. No additional action was initiated in 2020.

Ross Creek 4, Estill and Lee Counties. This project was approved by the IRT in 2019. KDFWR plans to purchase the property, which adjoins Ross Creek 1 & 2 through the Daniel Boone National Forestland. FILO and the landowner are working to resolve some title issues before moving forward.

Ross Creek 5 & 6, Lee County. A virtual site visit was presented in 2020 with an on-site visit scheduled in March 2021. Ross Creek 5 is 26 acres that adjoins to Ross Creek 6 which is 370 acres. Together, these projects adjoin the previous Ross Creek projects 1, 2, and 3. In 2020, FILO worked on title work and appraisals for these two properties and is awaiting final IRT approval. Together these two projects will generate over 3,400 EIU credits.

Little Sextons Creek, Jackson County. This project was approved by the IRT in 2019. KDFWR plans to purchase the 1,585 acre property and it is expected to generate over 9,300 credits. In 2020, FILO worked to resolve some title issues before beginning the survey. The property acquisition is expected to be completed in early 2021 and design work will follow.

Lower Kentucky River Service Area – Active Project Status

There are six active projects in this service area and three in the Long Term Management phase. These projects are within the USACE Louisville District and the KAP region, which utilizes the AMU credit system (**Appendix B: Figure 10, Table 17**).

Minors Creek, Owen County. The 309-acre property was purchased in 2014 and is now a part of the Kleber WMA. Construction began in the fall of 2017 and continued throughout 2018 with completion and final planting in early 2019. The as-built survey and first year of monitoring were completed in 2019 with reports submitted in December 2019. The second year of monitoring began in 2020. The Year Two report was submitted in December 2020. A credit release request was not submitted as the site needs a replanting effort.

Minors Creek 2, Owen County. The 70 acre Bogardus tract adjoins Minors Creek 1 and was purchased in 2017 to secure a section of the Minors Branch watershed upstream of mitigation activities. The IRT approved the additional mitigation on the Bogardus Tract in 2020.

Pond Creek, Owen County. The project is on the Chesney Tract of the Kentucky River WMA. It was approved in 2015 and the design started the same year. In 2016, FILO asked the design consultant for some design modifications. No additional progress was made in 2020.

Red Oak Creek Drainage C, Owen County. The project was approved in 2014 and was purchased in 2015. The 601-acre property was added to the Dr. James Rich WMA and design began in 2016. In 2017, FILO received the 401 WQC and submitted the 404 permit application. In 2018, FILO received the 404 permit and began construction. Final completion occurred in early 2019 with the as-built and Year 1 monitoring reports submitted in December 2019. The Year Two Monitoring Report and credit release request letter was submitted in December 2020.

Red Oak Creek Drainage ABD, Owen County. The project was approved by the IRT in 2014 and was purchased in 2015. The 601 acre property was added to the Dr. James Rich WMA. In 2020, FILO began design and Mitigation Plan development.

Rogers Gap, Scott County. The project included the acquisition of 2,500 acres containing approximately 28 miles of stream channel. The design-build started in 2013 and construction was completed in 2016. FILO submitted the Year 2 monitoring in 2018. In 2019, a request was made to the IRT to construct an office and enclosed shooting range in the southern portion of the Veterans WMA (Rogers Gap) property. Since this is considered a land use change, IRT consultation was required. The proposed work will occur on the southern portion of the parcel, outside of all mitigation work and does not require a permit, Instrument, or site protection modification, but did require written approval upon consultation with the IRT. In an email from the Louisville District USACE dated September 11, 2019, the request was approved. The email was filed in our records. This approval was documented in the 2019 annual report. In early 2020,

an extensive re-planting effort occurred across the site with installation of 15,500 live stakes and over 300 container trees. The Year Four monitoring report was submitted in December 2020 and documents this effort.

Salt River Service Area – Active Project Status

There are eleven active projects in this service area and one in the Long Term Management phase. These projects are within the USACE Louisville District and the KAP region, which utilizes the AMU credit system (**Appendix B: Figure 11, Table 18**).

Big Lick Hollow, Nelson County. IRT approved in 2018, this project was presented as part of a Full Delivery contract with consultant/contractor. It is expected to generate over 21,000 AMU stream credits and will be permanently protected with a conservation easement. In 2019, FILO continued working on the Biological Assessment, the Phase 1 Archaeological Report, the Mitigation Plan, the design, and the easement. In 2020, FILO filed the easement, submitted a draft Mitigation Plan and submitted for the Floodplain Permit and 401 WQC.

Dodge Gap, Jefferson County. IRT approved in 2018, this project is in the Jefferson Memorial Forest. It is expected it generate roughly 4,900 stream AMUs and will be permanently protected with a conservation easement. There is potential to add onto this project and new title work was done in 2020. A feasibility study is also underway in 2020 for the scope of the project.

Floyd’s Fork, Jefferson County. IRT approved in early 2016, this project is comprised of three separate areas: Big Vista Valley, Turkey Run, and Big Beech Woods. Altogether, there is the potential for over 12,000 stream AMUs and 5.5 wetland AMUs. After several attempts to proceed with the project, a new point of contact was established in 2018. In 2019 and 2020, these projects were still being considered by the new park manager.

Harrison Fork, Nelson County. This project is being implemented via an agreement between FILO and a University. In 2018, the University applied for a 401 WQC permit. In 2019, FILO (and the University) received the 401 WQC. In 2020, FILO worked towards finalizing the easement.

Otter Creek, Meade County. The project has the largest watershed of any FILO project with just over 100 square miles. Because of its size, good water quality, and significant physical degradation, the potential exists to create outstanding habitat that will support an excellent fishery and canoe recreation. The project is still being designed. In 2019, FILO completed the Environmental Assessment, a draft Mitigation Plan and received concurrence for Section 107. In 2020, FILO continued design and Mitigation Plan development.

Stillwell Branch, Larue County. IRT approved in 2018, this project is on KDFWR’s Rolling Fork WMA. It is expected to generate over 42,000 AMU stream credits and will be permanently protected with deed restrictions. In 2019, FILO continued to collect survey data and design the project. In 2020, FILO continued design and Mitigation Plan development.

Rolling Fork Floodplain, Larue/ Nelson County. Approved by the IRT in 2020, this project is on KDFWR’s Rolling Fork WMA. It is expected to generate 4,800 AMU stream credits, 64 wetland AMU credits and will be permanently protected with deed restrictions.

Rolling Fork River, Larue / Nelson County. Approved by the IRT in 2020, this project is on KDFWR's Rolling Fork WMA and is adjacent to the Rolling Fork Floodplain project. It is expected to generate 21,900 AMU stream credits.

Wolf Run, Jefferson County. The project is almost entirely on the Jefferson Memorial Forest. It will be developed in coordination with the Louisville-Jefferson County Metro Parks. Design began in late 2015 but was paused to resolve title and access concerns. In 2020, FILO began to develop a new agreement with Louisville Metro.

Floyd's Fork Wetland, Jefferson County. This project is in The Parklands of Floyds Fork with the goal to provide the public a wildlife viewing area of wetland habitat. It is estimated to generate 6 AMU wetland credits. Property title work was initiated in 2020.

Mill Creek, Jefferson County. Approved by the IRT in 2020, this project is a large scale urban project with over 180 public and private parcels that are projected to protect over 2,000 acres from development and stream encroachment. The project could generate up to approximately 69,000 AMU stream credits and 79 AMU wetland credits.

Green River Service Area – Active Project Status

There are eight active projects in this service area and two in the Long Term Management phase. These projects are within the USACE Louisville District and the KAP region, which utilizes the AMU credit system (**Appendix B: Figure 12, Table 19**).

Ivy Creek, Warren County. Approved by the IRT in 2019, this project is on private property with over 3 miles of Green River frontage. It is estimated to produce over 37,000 AMU stream credits and 18 AMU wetland credits and will be permanently protected with a conservation easement. FILO presented a land contract to the property owner near the end of 2020.

Big Rivers WMA Wetland, Union County. The project was approved in 2017. It is located on the existing Big Rivers WMA and it will provide over 32 wetland credits. In 2018, FILO hired a consultant to collect data and start on a project design. In 2019, FILO continued working on the Mitigation Plan and the design. In 2020, FILO submitted a draft Mitigation Plan.

Eagle Creek Tributary, Union County. The project is entirely within the Higginson-Henry WMA. Construction was nearly completed in 2017 when a disagreement between the contractor and consultant led to still ongoing litigation. In order to assess the current conditions of the site, monitoring continued with the Year 4 report submitted in 2020. Upon resolution of the litigation, FILO will re-assess and complete any outstanding construction issues.

Goose Creek, Casey County. The project was initially approved in 2013. Construction started in 2017 and continued throughout the entire year of 2018. In 2020, FILO completed the construction.

Trammel Creek, Allen County. FILO submitted the Year 5 monitoring report in 2014. However, the need for additional repairs and planting extended monitoring. In 2017, FILO planted additional

native trees of various sizes and submitted the Year 8 monitoring report. To further help with fence damage from flooding and livestock entering the easement, the landowner was approached regarding an easement expansion. This expansion was complete in 2018 which relocated the livestock fence farther from the stream. There are some areas identified for repairs during site visits. FILO developed a repair plan in 2019. The contract for this effort was awarded in November 2020 with repair work commencing in late 2021-2022. Remedial planting and monitoring will commence following this effort.

Trammel Creek II, Allen County. IRT approved in 2018, this project is directly downstream of the original Trammel Creek project. It is estimated to generate roughly 3,600 AMU stream credits and it will be permanently protected with a conservation easement. In 2020, FILO hired a Design-Build team to design and construct the project.

Bender Hollow, Lincoln County. IRT approved in 2019, this project is expected to generate over 14,000 AMU stream credits and will be permanently protected with a conservation easement. In 2020, FILO began working on the Biological Assessment, the Mitigation Plan, the design and the easement.

Gabbard Branch, Butler County. IRT approved in 2020, this project is 763 acres and is expected to produce over 47,000 AMU stream credits and 15 AMU wetland credits. FILO is currently working to resolve title issues and complete the acquisition.

Jackson Purchase Service Area – Active Project Status

There are two active projects in this service area and one in the Long Term Management phase. These projects are within the USACE Memphis and Nashville Districts and the KAP region, which utilizes the AMU credit system (**Appendix B: Figure 13, Table 20**).

Obion Creek #2, Hickman County. The Year 4 monitoring report was submitted in December 2020. Additional maintenance and invasive species work is needed to bring the project into compliance. Remedial actions will be discussed in 2021.

Kaler Bottoms, Graves County. The IRT approved this project in 2020 and it is estimated to generate 7 AMU wetland credits. It is located one mile from Kaler Bottoms WMA and will become part of the WMA. FILO completed the property acquisition in 2020.

Northern Kentucky Service Area – Active Project Status

There are seven active projects in this service area and none in Long Term Management. These projects are within the USACE Louisville District and the KAP region, which utilizes the AMU credit system (**Appendix B: Figure 14, Table 21**).

Middle Creek I, Boone County. The IRT approved this project in 2019 and it is expected to produce almost 6,000 AMU stream credits. This project is located upstream of future projects

Middle Creek II & III, FILO plans to purchase this property and will be permanently protected with deed restrictions. In 2020, FILO was in the final stages of purchasing the property.

Middle Creek II, Boone County. This project adjoins the Middle Creek I restoration project and is in the early stages of development. FILO plans to purchase a conservation easement on 3 the properties. In 2020, FILO worked on resolving title issues.

Middle Creek III, Boone County. This project was approved by the IRT in 2019 and is downstream of the additional Middle Creek projects. In 2020, FILO purchased the 160 acre property.

Steep Creek, Boone County. This project is in the early stages of development but is expected to generate over 15,000 AMU stream credits. In 2020, FILO entered the land contract phase.

Meadow Land, Boone County. IRT approved in 2020, this project is the second executed as full delivery and is expected to generate over 20,000 AMU stream credits. It will be permanently protected with a conservation easement.

Gunpowder I, Boone County. A virtual presentation was presented to the IRT in 2020 and is awaiting final approval. This 116 acre tract is part of a larger effort in restoring Gunpowder Creek watershed. The project is expected to produce over 2,500 AMU stream credits.

St. Anne Wetland, Campbell County. A virtual presentation was presented to the IRT in 2020 and is currently awaiting final approval. The property is a 35 acre tract with about 10 acres of wetland proposed for restoration. The project is expected to generate about 8 wetland AMU credits. The project will be protected by a conservation easement.

References

U.S. Army Corps of Engineers. 2018. Modification of the Agreement Concerning In-Lieu Mitigation Fees between U.S. Army Corps of Engineers and Kentucky Department of Fish and Wildlife Resources. Modification #8 Adding a Northern Kentucky Service Area. LRL-2010-325.

U.S. Army Corps of Engineers. 2011. Modification – Number One of the Agreement Concerning In-Lieu Mitigation Fees between U.S. Army Corps of Engineers and Kentucky Department of Fish and Wildlife Resources. LRL-2010-325.

U.S. Army Corps of Engineers. 2008. 33 CFR Chapter II Part 332. Compensatory Mitigation for Losses of Aquatic Resources. Federal Register Vol. 73, No. 70, April 10, 2008.

Appendix A – CY 20 Credit Sales, Costs and Balances

<u>Service Area</u>	<u>Date of Payment</u>	<u>Corps 404 Id. No.</u>	<u>Credits Sold</u>	<u>\$/Credit</u>	<u>Advanced Credits</u>	<u>Balance</u>	
Big Sandy Stream (EIU)					CY2020 Beginning Balance	203,781.66	
					CY2020 Credit Sales	-	
					CY2020 Credit Releases	-	
	CY2020 TOTAL CREDITS SOLD			-		CY2020 Ending Balance	203,781.66
Upper Kentucky Stream (EIU)	05/20/20	LRL-2017-1152	610.00	870	CY2020 Beginning Balance	209,298.37	
	06/29/20	LRL-2011-404	24.00	870	CY2020 Credit Sales	634.00	
					CY2020 Credit Releases	-	
	CY2020 TOTAL CREDITS SOLD			634.00		CY2020 Ending Balance	208,664.37
Upper Licking Stream (EIU)	07/06/20	LRL-2018-709	219.00	750	CY2020 Beginning Balance	226,326.40	
					CY2020 Credit Sales	219.00	
					CY2020 Credit Releases	-	
	CY2020 TOTAL CREDITS SOLD			219.00		CY2020 Ending Balance	226,107.40
Upper Cumberland Stream (EIU)	06/29/20	2009-01424	36.00	886	CY2020 Beginning Balance	229,562.49	
	12/08/20	LRN-2020-00624	20.20	880	CY2020 Credit Sales	56.20	
					CY2020 Credit Releases	-	
	CY2020 TOTAL CREDITS SOLD			56.20		CY2020 Ending Balance	229,506.29
Lower Kentucky Stream (AMU)	02/10/20	LRL-2019-282	3,565.00	285	CY2020 Beginning Balance	221,481.80	
	06/11/20	LRL-2020-300	262.00	330	CY2020 Credit Sales	4,776.00	
	06/29/20	LRL-2009-614	13.00	328	CY2020 Credit Releases	1,561.00	
	09/04/20	LRL-2020-178	486.00	330	CY2020 Ending Balance	218,266.80	
	12/11/20	LRL-2020-500	450.00	330			
	CY2020 TOTAL CREDITS SOLD			4,776.00			
	08/14/20	LRL-2013-00091	1,272.00				
	03/06/20	LRL-2014-00500	289.00				
CY2020 TOTAL CREDIT RELEASES			1,561.00				

Appendix A – CY 20 Credit Sales, Cost and Balances (cont.)

Lower Licking Stream (AMU)	06/10/20	LRL-2019-329	1,188.00	350	CY2020 Beginning Balance	203,269.93
	CY2020 TOTAL CREDITS SOLD		1,188.00		CY2020 Credit Sales	1,188.00
	01/24/20	LRL-2014-00209	7,171.00		CY2020 Credit Releases	7,171.00
	CY2020 TOTAL CREDIT RELEASES		7,171.00		CY2020 Ending Balance	209,252.93
Lower Cumberland Stream (AMU)					CY2020 Beginning Balance	179,338.59
					CY2020 Credit Sales	-
					CY2020 Credit Releases	-
	CY2020 TOTAL CREDITS SOLD		-		CY2020 Ending Balance	179,338.59
Salt Stream (AMU)	02/10/20	LRL-2017-153	90.00	325	CY2020 Beginning Balance	117,624.96
	06/29/20	LRL-2009-98	69.00	417	CY2020 Credit Sales	7,192.00
	09/11/20	LRL-2019-444	7,033.00	415	CY2020 Credit Releases	-
	CY2020 TOTAL CREDITS SOLD		7,192.00		CY2020 Ending Balance	110,432.96
Green River Stream (AMU)	04/13/20	LRL-2019-404	1,027.00	400	CY2020 Beginning Balance	189,082.94
	05/08/20	LRL-2010-770	1,142.00	400	CY2020 Credit Sales	2,855.00
	11/09/20	LRL-2018-32	686.00	400	CY2020 Credit Releases	-
	CY2020 TOTAL CREDITS SOLD		2,855.00		CY2020 Ending Balance	186,227.94
Jackson Purchase Stream (AMU)	03/13/20	LRL-2017-895	66.00	405	CY2020 Beginning Balance	237,151.51
					CY2020 Credit Sales	66.00
					CY2020 Credit Releases	-
	CY2020 TOTAL CREDITS SOLD		66.00		CY2020 Ending Balance	237,085.51
Northern Kentucky Stream (AMU)	01/08/20	LRL-2018-427 (2)	905.00	385	CY2020 Beginning Balance	7,123.50
	01/21/20	LRL-2019-130	936.00	385	CY2020 Credit Sales	7,123.50
	01/27/20	LRL-2019-136	3,776.00	385	CY2020 Credit Releases	-
	01/31/20	LRL-2019-270	1,506.50	385	CY2020 Ending Balance	-
	CY2020 TOTAL CREDITS SOLD		7,123.50			

Appendix B – Project Status

Figure 4. Project Status in the Big Sandy Service Area.

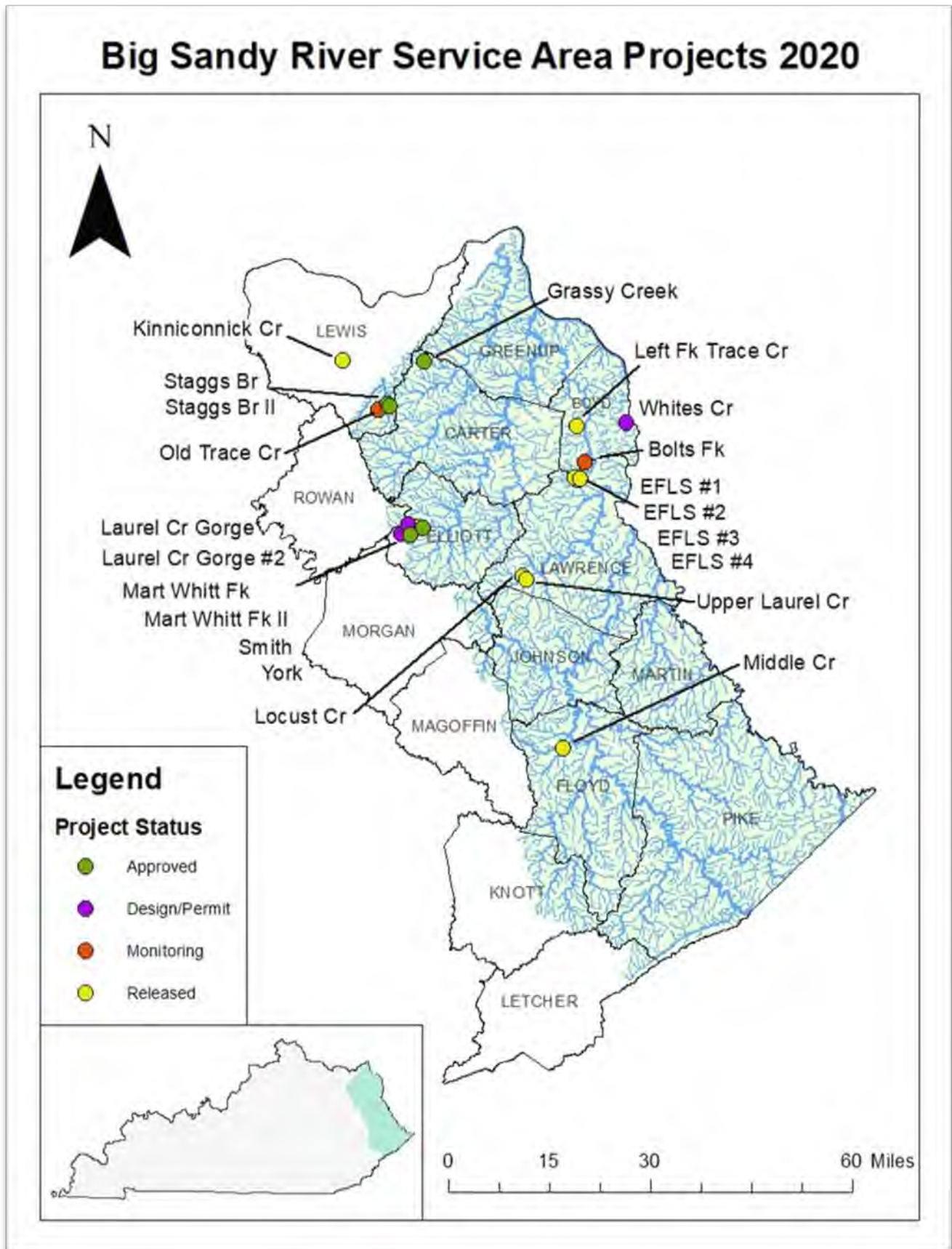


Table 11. Project Status in the Big Sandy River Service Area

Count	Project	Status	County	USACE District	404 Permit #
1	Staggs Br	CP Approved	Lewis	Louisville	LRL-2016-153-pgj
2	York	CP Approved	Elliott	Louisville	LRL-2013-1012-pgj
3	Mart Whitt II	CP Approved	Elliott	Louisville	LRL-2020-00578-pgj
4	Laurel Cr Gorge #2	Design/Permit	Elliott	Louisville	LRL-2012-478-pgj
5	Mart Whitt Fk	Design/Permit	Elliott	Louisville	LRL-2013-598-pgj
6	Smith	Design/Permit	Elliott	Louisville	LRL-2013-1013-pgj
7	Whites Cr	Design/Permit	Boyd	Louisville	LRL-2012-634-pgj
8	Bolts Fk	Monitoring - YR 5	Boyd	Louisville	LRL-2010-698-pgj
9	Old Trace Cr	Monitoring - YR 3	Lewis	Louisville	LRL-2013-336-pgj
10	EFLS #1	Released - Long Term Management	Lawrence	Louisville	200401120
11	EFLS #2	Released - Long Term Management	Lawrence	Louisville	LRL-2009-332-pgj
12	EFLS #3	Released - Long Term Management	Lawrence	Louisville	LRL-2008-1082-pgj
13	EFLS #4	Released - Long Term Management	Lawrence	Louisville	LRL-2009-123-pgj
14	Kinniconnick Cr	Released - Long Term Management	Lewis	Louisville	LRL-2007-409-pgj
15	Laurel Cr Gorge	Released - Long Term Management	Elliott	Louisville	-
16	Left Fk Trace Cr	Released - Long Term Management	Boyd	Louisville	2006-00160
17	Locust Cr	Released - Long Term Management	Lawrence	Louisville	LRL-2008-1249-pgj
18	Middle Cr	Released - Long Term Management	Floyd	Louisville	LRL-2006-1256-pgj
19	Upper Laurel Cr	Released - Long Term Management	Lawrence	Louisville	200500901
1	Brushy Cr	Approved - Terminated	Greenup	Louisville	200400931
2	EFLS #5	Approved - Terminated	Lawrence	Louisville	LRL-2011-456-pgj
3	Ison Creek	Approved - Terminated	Elliott	Louisville	LRL-2013-222-pgj
4	Laurel Cr Tributary	Approved - Terminated	Elliott	Louisville	-
5	Laurel Tribs - Rowe Flats	Approved - Terminated	Elliott	Louisville	LRL-2013-770-pgj
6	Schultz Creek	Approved - Terminated	Greenup	Louisville	2009-806
7	Lovelace Fork	Approved - Terminated	Elliott	Louisville	LRL-2015-1022-pgj
8	Laurel Gorge - Howard Tract	Approved - Terminated	Elliott	Louisville	LRL-2014-276-pgj
9	White Oak Creek	Approved - Terminated	Greenup	Louisville	LRL-2012-787-pgj
10	Hitchins	Approved - Terminated	Carter	Louisville	LRL-2016-374-pgj
11	Barrett Creek	Approved - Terminated	Carter	Louisville	LRL-2012-635
12	Clifty Cr	Approved - Terminated	Elliott	Louisville	LRL-2013-867-pgj
13	Ben William Branch	Approved - Terminated	Lewis	Louisville	-
14	Keys Creek	Approved - Terminated	Boyd	Louisville	-
15	Pigeon Roost	Approved - Terminated	Boyd	Louisville	LRL-2012-26-pgj
16	Flutylick Branch	Approved - Terminated	Martin	Louisville	-
17	Buffalo Cr	Approved - Terminated	Johnson	Louisville	-
18	Cat Fork	Approved - Terminated	Lawrence	Louisville	LRL-2012-132-pgj
19	Stan Br	Approved - Terminated	Carter	Louisville	LRL-2016-374-pgj
20	Pleas Creek	Approved - Terminated	Lawrence	Louisville	LRL-2019-01050-pgj
21	Staggs Br II	Approved - Terminated	Lewis	Louisville	LRL-2019-00436
22	Grassy Cr	Approved - Terminated	Carter	Louisville	LRL-2019-00559-pgj

Figure 5. Project Status in the Upper Cumberland River Service Area.

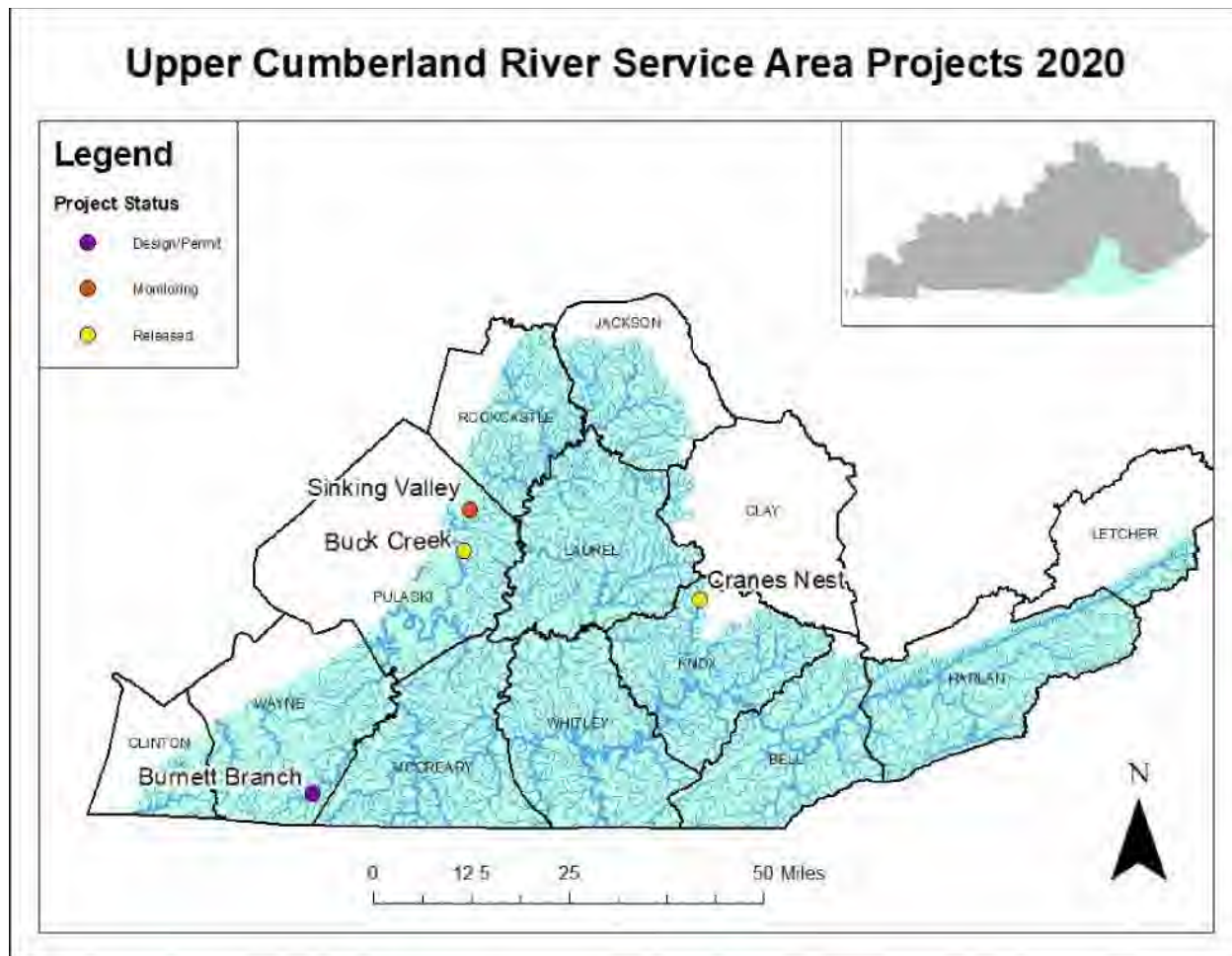


Table 12. Project Status in the Upper Cumberland River Service Area

Count	Project	Status	County	USACE District	404 Permit #
1	Burnett Br	Design/Permit	Wayne McCreary	Nashville	LRN-2013-00116
2	Cranes Nest	Monitoring - YR 5+	Knox	Nashville	2009-01424
3	Sinking Valley	Monitoring - YR 5	Pulaski	Nashville	LRN-2012-00326
4	Buck Cr - preservation	Released - Long Term Management	Pulaski	Nashville	
1	Steele Branch	Approved - Terminated	Wayne McCreary	Nashville	LRN-2012-01244
2	Mulbery Cr	Approved - Terminated	Whitley	Nashville	LRN-2016-00783
3	Lonesome Cr	Approved - Terminated	Wayne	Nashville	LRN-2018-00488

Figure 6. Project Status in the Lower Cumberland River Service Area.

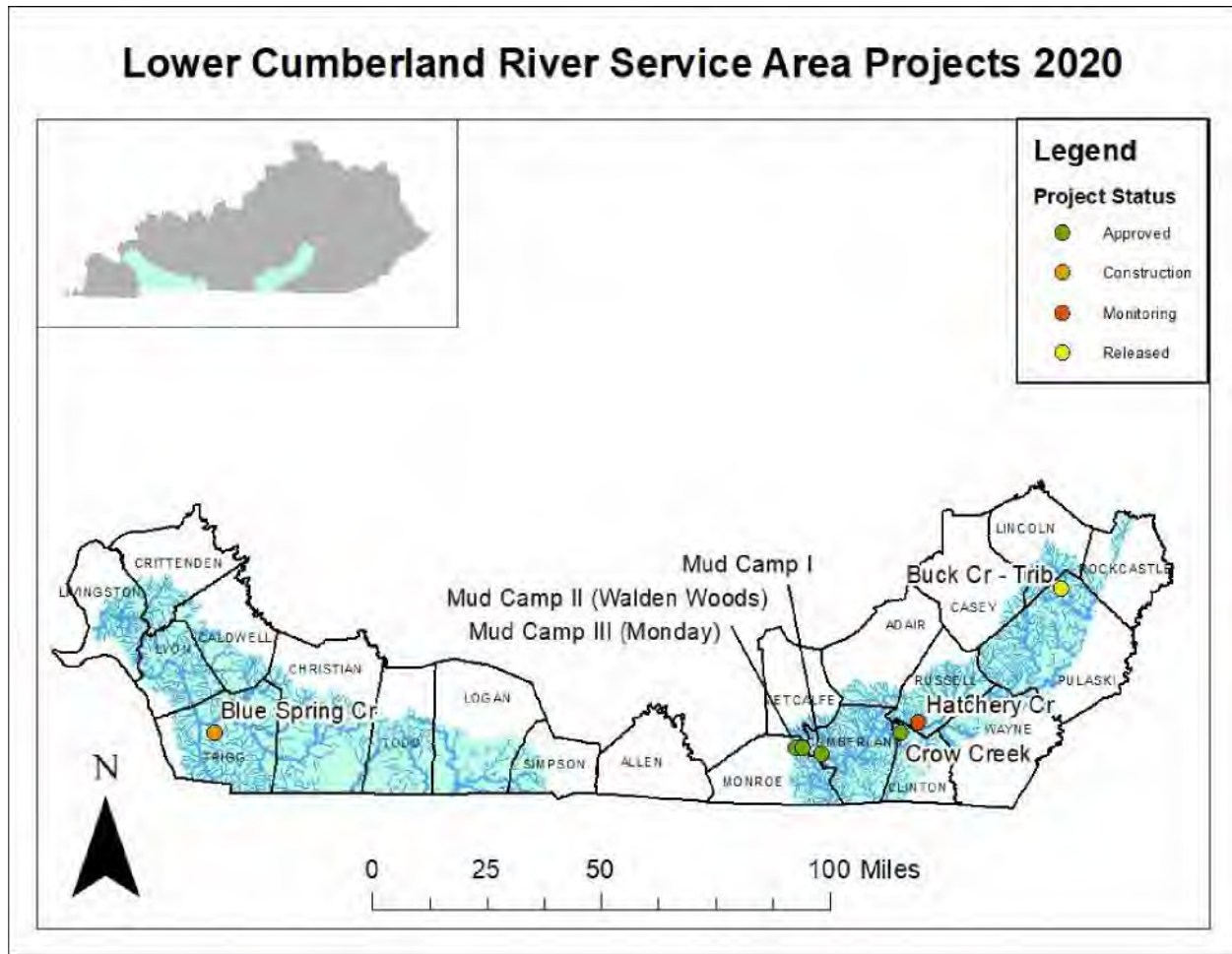


Table 13. Project Status in the Lower Cumberland River Service Area

Count	Project	Status	County	USACE District	404 Permit #
1	Mud Camp II	CP Approved	Cumberland	Nashville	LRN-2020-00540
2	Mud Camp III	CP Approved	Cumberland	Nashville	LRN-2020-01203
3	Crow Creek	CP Approved	Clinton	Nashville	LRN-2020-00539
4	Blue Spring Cr	Design/Permit	Trigg	Nashville	LRN-2013-00776
5	Hatchery Cr	Monitoring - YR 3	Russell	Nashville	LRN-2010-00444
6	Buck Cr - Trib	Released - Long Term Management	Pulaski	Nashville	LRN-2006-2255
1	Puncheon Cr	Approved - Terminated	Pulaski	Nashville	-
2	Bear Den Hollow	Approved - Terminated	Pulaski	Nashville	LRN-2016-00784
3	Doan Springs	Approved - Terminated	Crittenden	Nashville	LRN-2017-00426
4	Elton Lake	Approved - Terminated	Todd	Nashville	LRN-2018-00451
5	Ferguson Cr	Approved - Terminated	Livingston	Nashville	LRN-2018-00128
6	Mud Camp I	Approved - Terminated	Cumberland	Nashville	LRN-2019-00761

Figure 7. Project Status in the Upper Licking River Service Area.

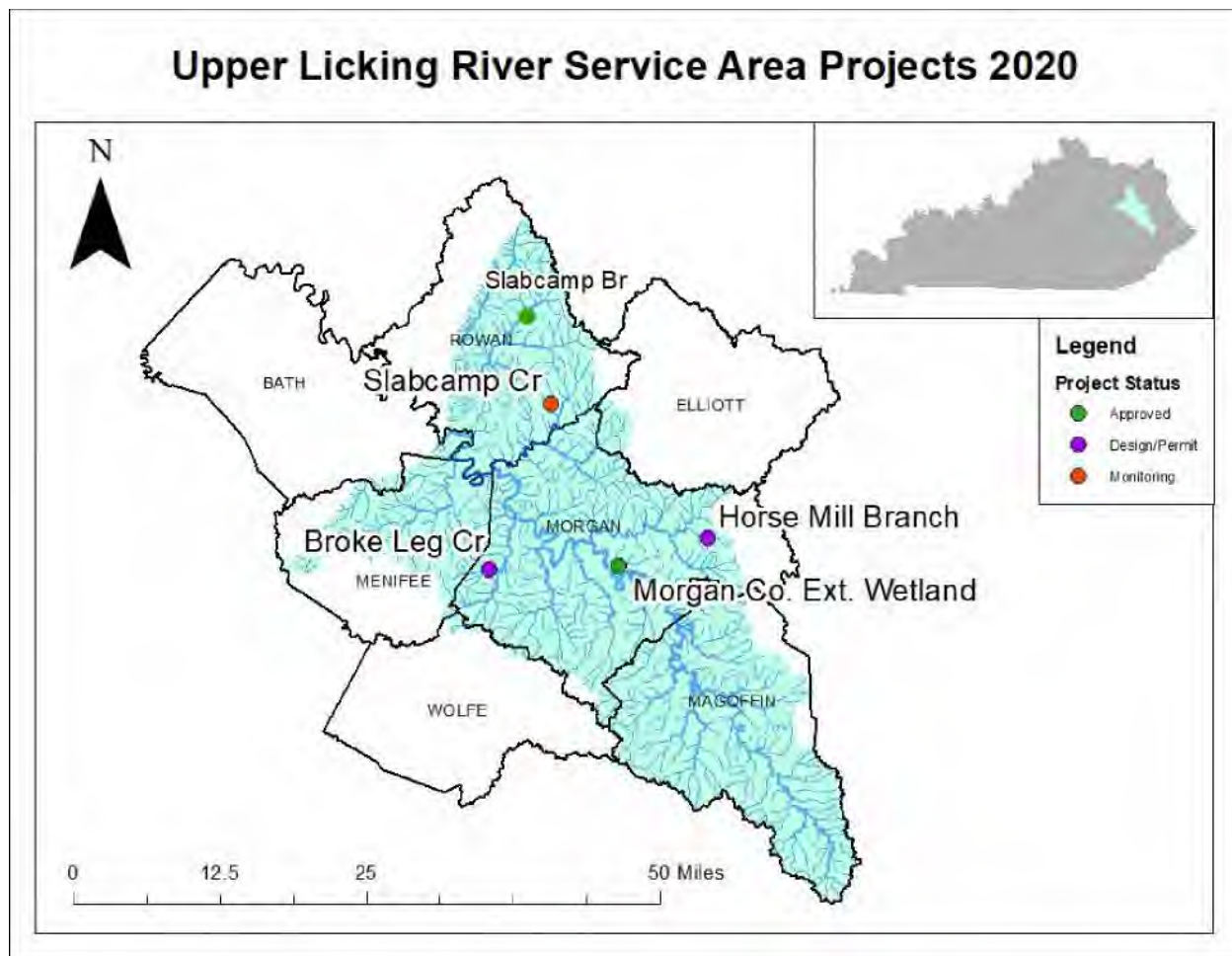


Table 14. Project Status in the Upper Licking Service Area

Count	Project	Status	County	USACE District	404 Permit #
1	Morgan Co. Ext. Wetland	CP Approved	Morgan	Louisville	LRL-2018-00682
2	Horse Mill Branch	CP Approved	Morgan	Louisville	LRL-2018-00100
3	Slabcamp Branch	CP Approved	Rowan	Louisville	LRL-2018-00562
4	Broke Leg Cr	Design/Permit	Morgan	Louisville	LRL-2016-00371-pgj
5	Slabcamp Cr	Monitoring - YR 5+	Rowan	Louisville	LRL-2009-762-pgj
1	Straight Cr	Approved - Terminated	Morgan	Louisville	LRL-2015-896
2	Slabcamp Cr #2	Approved - Terminated	Rowan	Louisville	-
3	Ratliff	Approved - Terminated	Meniffee	Louisville	LRL-2016-896

Figure 8. Project Status in the Lower Licking River Service Area.



Table 15. Project Status in the Lower Licking Service Area

Count	Project	Status	County	USACE District	404 Permit #
1	Big Farm	Construction	Bath	Louisville	LRL-2014-209-pgj
2	Rock Lick Cr	Design/Permit	Fleming	Louisville	LRL-2016-393
3	Myers Station	Monitoring - YR 3	Nicholas	Louisville	LRL-2012-637-pgj
4	Salt Lick Cr	Released - LTM	Bath	Louisville	LRL-2011-891-pgj
5	Claysville	Released - LTM	Bath	Louisville	LRL-2011-891-pgj
1	Martin Mill Branch	Approved - Terminated	Fleming	Louisville	LRL-2014-443-pgj
2	Greasy Cr	Approved - Terminated	Robertson	Louisville	-

Figure 9. Project Status in the Upper Kentucky River Service Area.

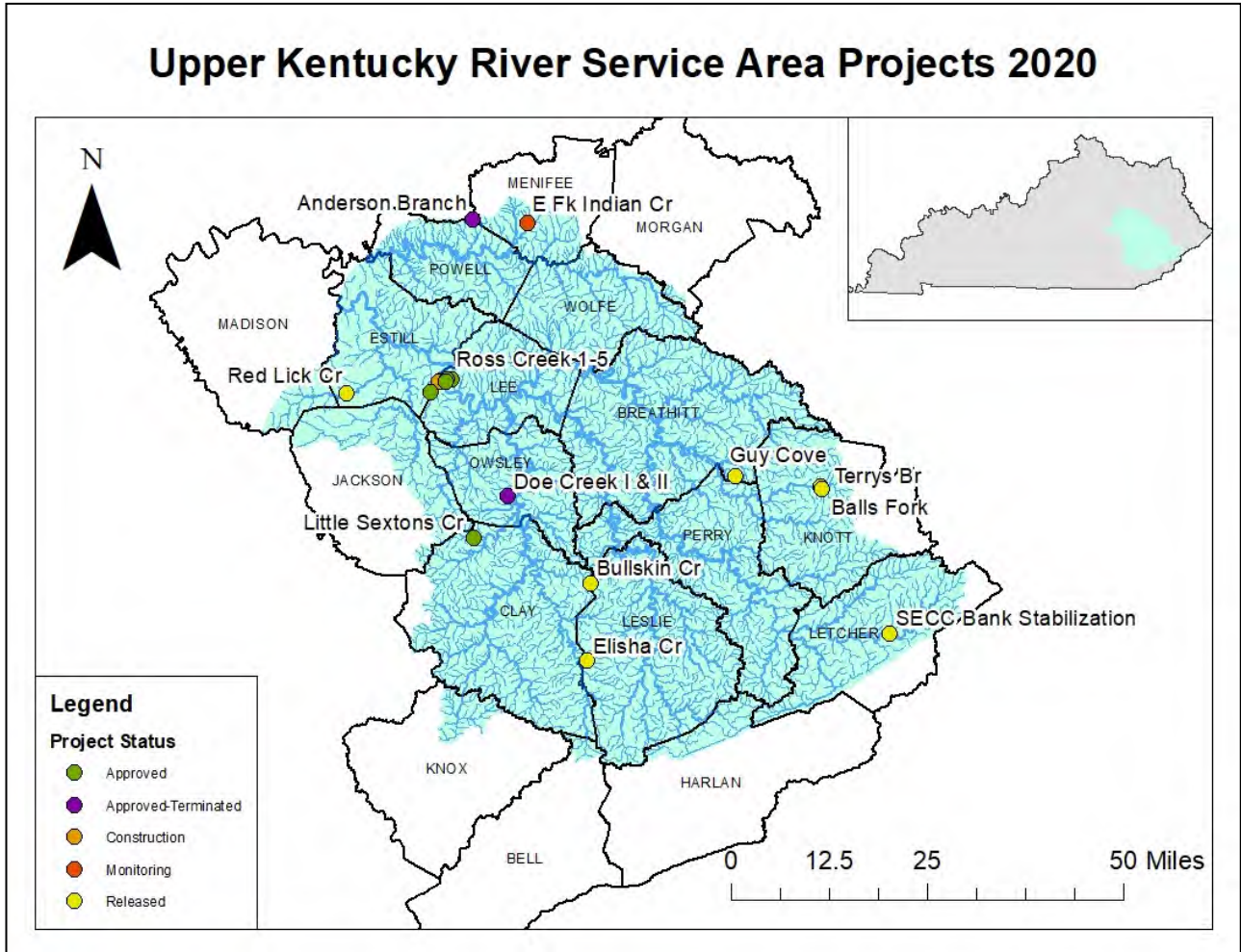


Table 16. Project Status in the Upper Kentucky River Service Area

Count	Project	Status	County	USACE District	404 Permit #
1	Ross Cr #1 & #2	Design/Permit	Lee	Louisville	LRL-2013-143
2	Ross Cr #3	CP Approved	Lee	Louisville	LRL-2017-00042
3	Ross Cr #4	CP Approved	Estill	Louisville	LRL-2019-563
4	Ross Cr #5	CP Approved	Lee	Louisville	LRL-2020-288
5	Ross Cr #6	CP Approved	Lee	Louisville	LRL-2020-326
6	Little Sextons Creek	CP Approved	Jackson	Louisville	LRL-2018-00981-pgj
7	Efk Indian Cr	Monitoring - YR 5	Menifee	Louisville	LRL-2012-273
8	Elisha Cr	Released - Long Term Management	Leslie	Louisville	LRL-2011-404-pgj
9	Balls Fork	Released - Long Term Management	Knott	Louisville	2002-01447
10	Bullskin Cr	Released - Long Term Management	Leslie	Louisville	200500205-pgj
11	Guy Cove (Laurel Fork)	Released - Long Term Management	Breathitt	Louisville	LRL-2007-615
12	Red Lick Cr	Released - Long Term Management	Estill	Louisville	LRL-2005-131-lad
13	SECC Bank Stabilization	Released - Long Term Management	Letcher	Louisville	LRL-2005-1004-the
14	Terrys Br	Released - Long Term Management	Knott	Louisville	200500205
1	Upper Cane Creek	Approved - Terminated	Menifee	Louisville	LRL-2009-433-pgj
2	Frozen Creek	Approved - Terminated	Breathitt	Louisville	-
3	Hinton Branch	Approved - Terminated	Estill	Louisville	-
4	North Fork Kentucky River	Approved - Terminated	Perry	Louisville	-
5	Red Lick #2	Approved - Terminated	Estill	Louisville	-
6	Holly Fork	Approved - Terminated	Owsley	Louisville	LRL-2015-1020-pgj
7	Sand Lick	Approved - Terminated	Powell	Louisville	-
8	Troublesome Cr	Approved - Terminated	Perry	Louisville	-
9	Persimmon Hollow	Approved - Terminated	Leslie	Louisville	-
10	Middle Fork Cane Cr	Approved - Terminated	Powell	Louisville	LRL-2015-583-pgj
11	Muir Valley	Approved - Terminated	Wolfe	Louisville	LRL-2016-1060

Figure 10. Project Status in the Lower Kentucky River Service Area.

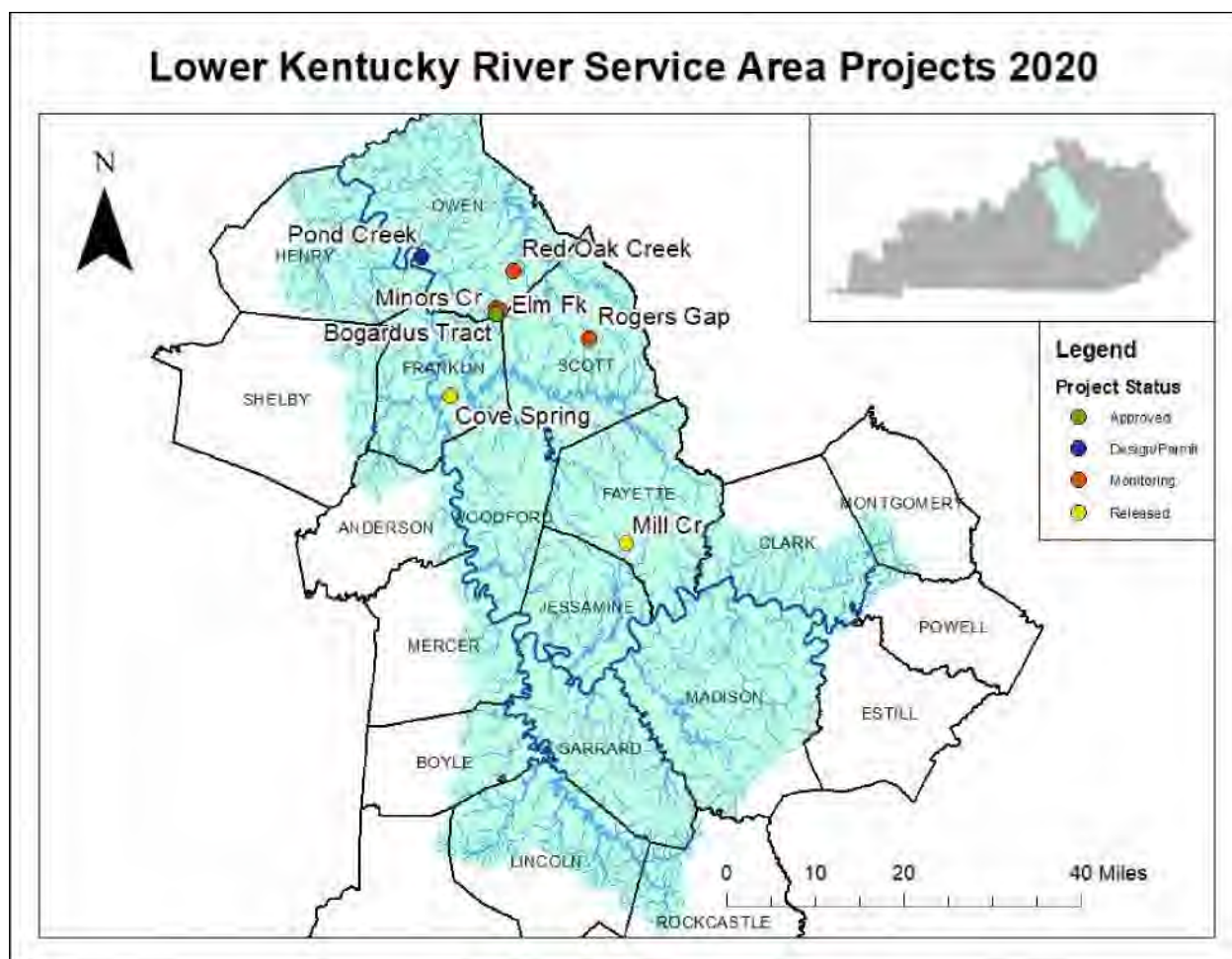


Table 17. Project Status in the Lower Kentucky River Service Area

Count	Project	Status	County	USACE	404 Permit #
1	Minors Cr 2	CP Approved	Owen	Louisville	LRL-2019-01049
2	Pond Creek	Design /Permit	Owen	Louisville	LRL-2014-191-pgj
3	Red Oak Creek ABD	Design /Permit	Owen	Louisville	LRL-2018-00770-pgj
4	Minors Cr	Monitoring - YR 2	Owen	Louisville	LRL-2013-91-pgj
5	Red Oak Creek C	Monitoring - YR 2	Owen	Louisville	LRL-2014-500-pgj
6	Rogers Gap	Monitoring - YR 4	Scott	Louisville	LRL-2013-134-pgj
7	Elm Fk	Released - Long Term Management	Owen	Louisville	LRL-2012-263-pgj
8	Mill Cr	Released - Long Term Management	Fayette	Louisville	LRL-2009-611-pgj
9	Cove Spring	Released - Long Term Management	Franklin	Louisville	LRL-2009-614 pgj
1	Boling Branch	Approved - Terminated	Henry	Louisville	LRL-2017-261
2	Wolf Run	Approved - Terminated	Fayette	Louisville	200600323-pgj

Figure 11. Project Status in the Salt River service Area.

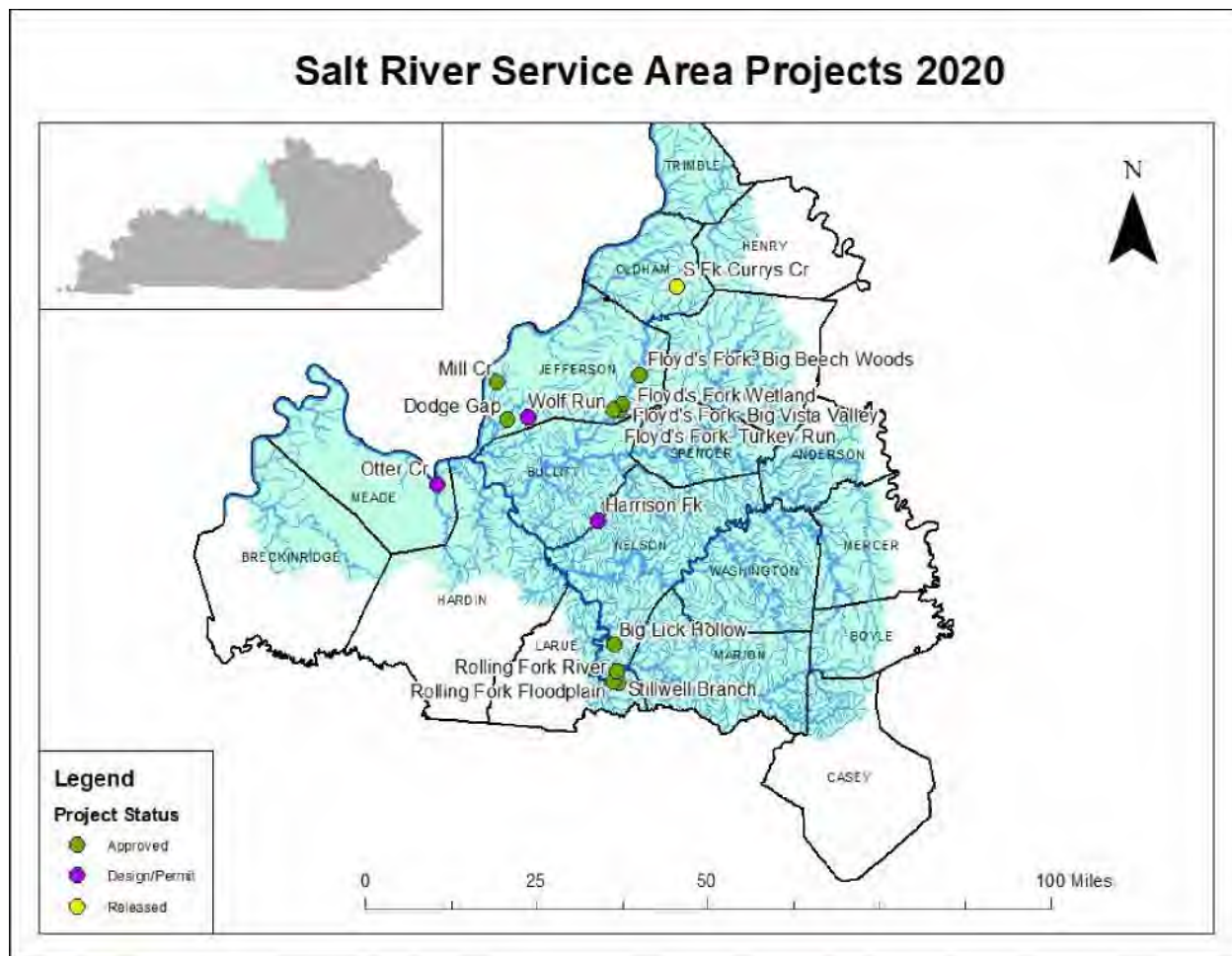


Table 18. Project Status in the Salt River Service Area

Count	Project	Status	County	USACE	404 Permit #
1	Mill Creek	CP Approved	Jefferson	Louisville	LRL-2020-00188
2	Rolling Fork Floodplain	CP Approved	Larue/ Nelson	Louisville	LRL-2020-00630-pgj
3	Rolling Fork River	CP Approved	Laure	Louisville	LRL-2020-00631-pgj
4	Dodge Gap	CP Approved	Jefferson	Louisville	LRL-2018-00112
5	Floyd's Fork Wetland	CP Approved	Jefferson	Louisville	LRL-2019-00933-pgj
6	Floyd's Fork Streams	CP Approved	Jefferson	Louisville	LRL-2015-216-pgj
7	Big Lick Hollow	Design/Permit	Nelson	Louisville	LRL-2018-00383-pgj
8	Stillwell Branch	Design/Permit	Larue	Louisville	LRL-2017-00906-pgj
9	Harrison Fk	Design/Permit	Nelson	Louisville	LRL-2012-274-pgj
10	Otter Cr	Design/Permit	Meade	Louisville	LRL-2013-425-pg
11	Wolf Run	Design/Permit	Jefferson	Louisville	LRL-2014-60-pgj
12	S Fk Curry's Cr	Released - Long Term Management	Oldham	Louisville	LRL-2009-98-pgj

Figure 13. Project Status in the Jackson Purchase Service Area.



Table 20. Project Status in the Jackson Purchase Service Area

Count	Project	Status	County	USACE District	404 Permit #
1	Obion Cr 2	Monitoring - YR 4	Hickman	Memphis	MVM-2010-074
2	Kaler Bottoms	Design / Permit	Graves	Nashville	LRL-2019-00536
3	Obion Cr 1	Released - Long Term Management	Hickman	Memphis	200300263
1	East Fork Clark's River	Approved - Terminated	Calloway	Nashville	-

Figure 14. Project Status in the Northern Kentucky Service Area.

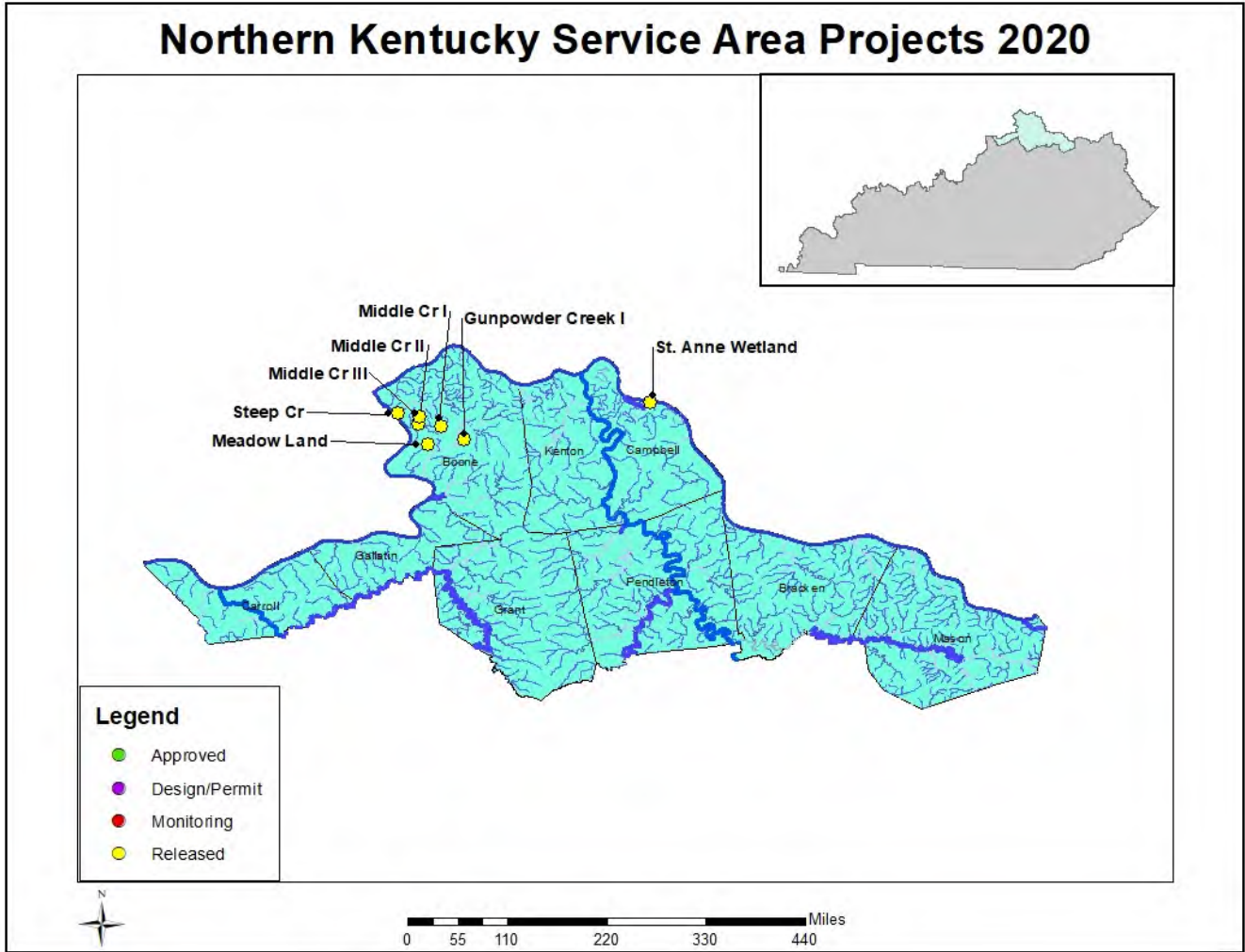


Table 21. Project Status in the Northern Kentucky Service Area

Count	Project	Status	County	USACE Distrct	404 Permit #
1	St. Anne Wetland	CP Approved	Campbell	Louisville	LRL-2020-000186
2	Gunpowder I	CP Approved	Boone	Louisville	LRL-2019-00590
3	Steep Cr	CP Approved	Boone	Louisville	LRL-2018-00383
4	Middle Cr I	CP Approved	Boone	Louisville	LRL-2019-161
5	Middle Cr II	CP Approved	Boone	Louisville	LRL-2019-01052
6	Middle Cr III	CP Approved	Boone	Louisville	LRL-2019-00590
7	Meadow Land	CP Approved	Boone	Louisville	LRL-2020-00184
1	Steel Cr	Approved - Terminated	Gallatin	Louisville	LRL-2018-00725

Appendix C – Compliance and Long Term Management Activities

Long Term Management Activities

Table 21. List of Long Term Management Activities by Project

Completed Maintenance Tasks for 2020:

Project: Old Trace Trib B

Date: January 17, 2020

Attendees: MB, TB JE

Action: Bank Repairs

Description: Repaired blown around structures and eroding banks on tributaries A and B. Approximately used 6 tons of rock to amend the issue. We used the rock to add seals to structures, redirect flow into thalweg, and armor banks.

Project: Old Trace Trib. B

Date: January 30, 2020

Attendees: MB, TB,

Action: Planted Livestakes

Description: Cut and planted live stakes to prevent erosion in tribs A and B. Planted 525 stakes: 250 black willow, 250 sandbar willow, and 25 box elder. The livestaked outside bend and other eroding areas.

Project: Roger's Gap Trib. A

Date: February 6, 2020

Attendees: MB, TB, BWM, JE

Action: Planted Livestakes

Description: Cut and planted live stakes to prevent erosion in trib A. Planted 3,000 stakes: 1,500 black willows, 1,500 sandbar willow. The livestaked outside bend, chute cut-offs, and other eroding areas.

Project: Old Trace Trib. A

Date: February 13, 2020

Attendees: MB, TB, BWM, JE

Action: Bank Repairs

Description: Repaired blown around structures and eroding banks on tributaries A and B. Approximately used 3 tons of rock to amend the issue. We used the rock to add seals to structures, redirect flow into thalweg, and armor banks.

Project: Old Trace Trib. A

Date: February 19, 2020

Attendees: MB, TB, BWM, JE

Action: Planted Livestakes

Description: Cut and planted live stakes to prevent erosion in tribs A and B. Planted 500 stakes: 250 black willow and 250 sandbar willow. The live staked outside bend and other eroding areas.

Project: Roger's Gap Trib. A

Date: March 3, 2020

Attendees: MB, TB, BWM

Action: Planted Livestakes

Description: Cut and planted live stakes to prevent erosion in trib A. Planted 1100 stakes: 550 black willows and 550 sandbar willow. The livestaked outside bend and other eroding areas.

Project: Roger's Gap Trib. B and Trib. I

Date: March 11, 2020

Attendees: MB, TB, BWM, RL, TVA

Action: Planted Livestakes

Description: Cut and planted live stakes to prevent erosion. Planted 5600 stakes: 750 red osier dogwood, 750 silky dogwoods, 750 buttonbushes, 750 elderberries, 750 ninebarks, 750 black willow, and 800 sandbar willow. The livestaked outside bend and other eroding areas.

Project: Roger's Gap Trib. B

Date: March 20, 2020

Attendees: MB, TB

Action: Planted Livestakes

Description: Cut and planted live stakes to prevent erosion in trib A. Planted 600 stakes: 300 black willow and 300 sandbar willow. The livestaked outside bend and other eroding areas.

Project: Minors and Elm Fork

Date: March 23, 2020

Attendees: TB

Action: Sprayed Invasive Species

Description: We sprayed Poison Hemlock rosettes in the riparian zone with 2-4D. Spraying 12 gallons of 2% herbicide out of backpack sprayer.

Project: Hatchery Creek

Date: March 24, 2020

Attendees: TB

Action: Sprayed Invasive Species

Description: We cut stump treated Autumn Olive in the riparian zone with 2-4D. Spraying .25 gallons of 40% herbicide out of backpack sprayer.

Project: Hatchery Creek

Date: March 25, 2020

Attendees: TB

Action: Sprayed Invasive Species

Description: We cut stump treated Autumn Olive in the riparian zone with 2-4D. Spraying .25 gallons of 40% herbicide out of backpack sprayer.

Project: Roger's Gap Trib. A

Date: April 6-8, 2020

Attendees: MB, TB

Action: Tree Test Plot Planting

Description: We planted test cluster tree plots on trib. A to see if this is a viable planting method for future projects trying to create a seed source. There were 7 plots, 3 upland and 4 lowlands plots; each plot with one species that would be suitable for the site. We planted the 3-gallon container trees at 20 ft by 20 ft spacing. The plots together equalled 1 acre with the spacing we planted 105 trees 7 species. Each plot received 15 trees site-specific species: Shagbark Hickory, Black Cherry, Black Walnut, Hackberry, Northern Red Oak, Burr Oak, and Ohio Buckeye.

Project: Roger's Gap Trib. B

Date: April 9, 2020

Attendees: MB, TB

Action: Tree Planting

Description: We planted 42 3-gallon container trees scattered throughout the site. The trees were concentrated on the bends of the stream to provide shade/temperature control in the future in the pools. Of the 42 trees, we used 9 species: 6 River Birch, 3 Burr Oak, 6 American Elm, 6 Red Maple, 5 Spice Bush, 2 Nine Bark, 4 Pin Oak, 5 Sweet Gum, and 5 Tulip Poplar.

Project: Roger's Gap Trib. C

Date: April 8, 2020, April 9, 2020, April 14, 2020

Attendees: MB, TB, BWM

Action: Tree Planting

Description: We planted 70 3-gallon container trees scattered throughout the site. The trees were concentrated on the bends and areas without woody stems of the stream to provide shade/temperature control in the future in the pools. Of the 70 trees, we used 10 species: 7 River Birch, 12 American Elm, 13 Red Maple, 5 Spice Bush, 2 Nine Bark, 5 Pin Oak, 11 Sweet Gum, 2 Burr Oak, 9 Black Walnut, and 4 Tulip Poplar.

Project: Roger's Gap Trib. D

Date: April 14, 2020

Attendees: MB, TB

Action: Tree Planting

Description: We planted 18 3-gallon container trees scattered throughout the site. The trees were concentrated on the bends and areas without woody stems of the stream to provide shade/temperature control in the future in the pools. Of the 18 trees, we used 10 species: 2 River Birch, 2 American Elm, 2 Red Maple, 2 Black Walnut, 2 Spice Bush, 1 Nine Bark, 1 Pin Oak, 2 Sweet Gum, 1 Burr Oak, Black Walnut, and 3 Tulip Poplar.

Project: Roger's Gap Trib. E

Date: April 14, 2020

Attendees: MB, TB

Action: Tree Planting

Description: We planted 18 3-gallon container trees scattered throughout the site. The trees were concentrated on the bends and areas without woody stems of the stream to provide shade/temperature control in the future in the pools. Of the 18 trees, we used 10 species: 3 River Birch, 2 American Elm, 2 Red Maple, 2 Spice Bush, 1 Nine Bark, 2 Pin Oak, 1 Black Walnut, 2 Sweet Gum, 1 Burr Oak, and 2 Tulip Poplar.

Project: Roger's Gap Trib. F

Date: April 15, 2020

Attendees: MB, TB

Action: Tree Planting

Description: We planted 70 3-gallon container trees scattered throughout the site. The trees were concentrated on the bends and areas without woody stems of the stream to provide shade/temperature control in the future in the pools. Of the 70 trees, we used 10 species: 10 River Birch, 8 American Elm, 8 Red Maple, 8 Spice Bush, 5 Nine Bark, 6 Pin Oak, 5 Black Walnut, 9 Sweet Gum, 5 Burr Oak, and 6 Tulip Poplar.

Project: Roger's Gap Trib. I

Date: April 14, 2020

Attendees: MB, TB

Action: Tree Planting

Description: We planted 15 3-gallon container trees scattered throughout the site. The trees were concentrated on the bends and areas without woody stems of the stream to provide shade/temperature control in the future in the pools. Of the 15 trees, we used 9 species: 2 River Birch, 1 American Elm, 2 Red Maple, 2 Spice Bush, 1 Nine Bark, 1 Pin Oak, 3 Sweet Gum, 1 Burr Oak, and 2 Tulip Poplar.

Project: Roger's Gap Trib. D
Date: April 16, 2020
Attendees: MB, TB
Action: Sprayed Invasive Species
Description: We sprayed MF Rose, Autumn Olive, Bush Honeysuckle, and Garlic Mustard in the riparian zone with Element-4. Spraying 18 gallons of 2% herbicide out of backpack sprayer.

Project: Roger's Gap Trib. E
Date: April 16, 2020
Attendees: MB, TB
Action: Sprayed Invasive Species
Description: We sprayed MF Rose, Autumn Olive, Bush Honeysuckle, and Garlic Mustard in the riparian zone with Element-4. Spraying 12 gallons of 2% herbicide out of backpack sprayer.

Project: Roger's Gap Trib. C
Date: April 20, 2020
Attendees: MB, TB
Action: Sprayed Invasive Species
Description: We sprayed MF Rose, Autumn Olive, Bush Honeysuckle, Poison Hemlock, and Garlic Mustard in the riparian zone with Element-4. Spraying 30 gallons of 2% herbicide out of backpack sprayer.

Project: Roger's Gap Trib. C
Date: April 21, 2020
Attendees: MB, TB
Action: Sprayed Invasive Species
Description: We sprayed MF Rose, Autumn Olive, Bush Honeysuckle, Poison Hemlock, and Garlic Mustard in the riparian zone with Element-4. Spraying 36 gallons of 2% herbicide out of backpack sprayer.

Project: Red Oak Trib. C
Date: April 22, 2020
Attendees: MB, TB
Action: Sprayed Invasive Species
Description: We sprayed MF Rose, Autumn Olive, Bush Honeysuckle, Thistle, and Garlic Mustard in the riparian zone with Element-4. Spraying 9 gallons of 2% herbicide out of backpack sprayer.

Project: Roger's Gap Trib. F
Date: April 28, 2020
Attendees: MB
Action: Sprayed Invasive Species
Description: We sprayed MF Rose, Autumn Olive, Bush Honeysuckle, Poison Hemlock, and Garlic Mustard in the riparian zone with Element-4. Spraying 24 gallons of 2% herbicide out of backpack sprayer.

Project: Roger's Gap Trib. F
Date: May 1, 2020
Attendees: MB, TB
Action: Sprayed Invasive Species
Description: We sprayed MF Rose, Autumn Olive, Bush Honeysuckle, Poison Hemlock, and Garlic Mustard in the riparian zone with Element-4 and Rodeo. Spraying 30 gallons of Element-4 at 2% herbicide out of backpack sprayer and 15 gallons of Rodeo at 3% herbicide out of backpack sprayer.

Project: Roger's Gap Trib. F
Date: May 4, 2020
Attendees: MB, TB
Action: Sprayed Invasive Species
Description: We sprayed MF Rose, Autumn Olive, Bush Honeysuckle, Poison Hemlock, and Garlic Mustard in the riparian zone with Rodeo. Spraying 39 gallons of Rodeo at 3% herbicide out of backpack sprayer.

Project: Roger's Gap Trib. F
Date: May 6, 2020
Attendees: MB, TB
Action: Sprayed Invasive Species
Description: We sprayed MF Rose, Autumn Olive, Bush Honeysuckle, Poison Hemlock, and Garlic Mustard in the riparian zone with Rodeo. Spraying 45 gallons of Rodeo at 3% herbicide out of backpack sprayer.

Project: Roger's Gap Trib. A
Date: May 7, 2020
Attendees: MB, TB
Action: Sprayed Invasive Species
Description: We sprayed MF Rose, Autumn Olive, Bush Honeysuckle, Poison Hemlock, and Garlic Mustard in the riparian zone with Rodeo. Spraying 42 gallons of Rodeo at 3% herbicide out of backpack sprayer.

Project: Roger's Gap Trib. B
Date: May 11 2020
Attendees: MB, TB
Action: Sprayed Invasive Species
Description: We sprayed MF Rose, Autumn Olive, Bush Honeysuckle, Poison Hemlock, and Garlic Mustard in the riparian zone with Rodeo. Spraying 13 gallons of Rodeo at 3% herbicide out of backpack sprayer.

Project: Roger's Gap Trib. A
Date: May 11, 2020
Attendees: MB, TB
Action: Sprayed Invasive Species
Description: We sprayed MF Rose, Autumn Olive, Bush Honeysuckle, Poison Hemlock, and Garlic Mustard in the riparian zone with Rodeo. Spraying 5 gallons of Rodeo at 3% herbicide out of backpack sprayer.

Project: Roger's Gap Trib. A
Date: May 14, 2020
Attendees: MB, TB
Action: Sprayed Invasive Species
Description: We sprayed MF Rose, Autumn Olive, Bush Honeysuckle, Poison Hemlock, and Garlic Mustard in the riparian zone with Rodeo. Spraying 39 gallons of Rodeo at 3% herbicide out of backpack sprayer.

Project: East Fork Indian Creek
Date: June 11, 2020
Attendees: MB, TB
Action: Sprayed Invasive Species
Description: We sprayed MF Rose, Autumn Olive, Crown Vetch, Sericea, Thistle, Curly dock, and Sweet Clover in the riparian zone with Rodeo. Spraying 11 gallons of Rodeo at 3% herbicide out of backpack sprayer.

Project: Minors Branch
Date: June 16, 2020

Attendees: MB, TB

Action: Sprayed Invasive Species

Description: We sprayed MF Rose, Autumn Olive, Bush Honeysuckle, Crown Vetch, Sericea, Thistle, Curly dock, and Sweet Clover in the riparian zone with Rodeo. Spraying 18 gallons of Rodeo at 3% herbicide out of backpack sprayer.

Project: Minors Branch

Date: June 24, 2020

Attendees: MB, TB

Action: Sprayed Invasive Species

Description: We sprayed MF Rose, Autumn Olive, Bush Honeysuckle, Crown Vetch, Sericea, Thistle, Curly dock, and Sweet Clover in the riparian zone with Rodeo. Spraying 22 gallons of Rodeo at 3% herbicide out of backpack sprayer.

Project: Ross Creek

Date: June 25, 2020

Attendees: MB, TB

Action: Sprayed Invasive Species

Description: We sprayed Multiflora Rose, Autumn Olive, Curly dock, and Kudzu in the riparian zone with Rodeo. Spraying 10 gallons of Rodeo at 3% herbicide out of backpack sprayer.

Project: Rogers Gap Trib. A

Date: July 1, 2020

Attendees: MB, TB

Action: Sprayed Invasive Species

Description: We sprayed MF Rose, Autumn Olive, Bush Honeysuckle, Thistle, and Teasel in the riparian zone with Rodeo. Spraying 19 gallons of Rodeo at 3% herbicide out of backpack sprayer.

Project: Rogers Gap Trib. A

Date: July 2, 2020

Attendees: MB, TB

Action: Sprayed Invasive Species

Description: We sprayed MF Rose, Autumn Olive, Sericea, Curly Dock, Thistle, Teasel, and Knott weed in the riparian zone with Rodeo. Spraying 8 gallons of Rodeo at 3% herbicide out of backpack sprayer.

Project: Hatchery Creek

Date: July 21, 2020

Attendees: MB and TB

Action: Sprayed Invasive Species

Description: We cut stump treated Autumn Olive in the riparian zone and wetland area with Rodeo. Spraying 0.30 gallons of 40% herbicide out of hand sprayers.

Project: Hatchery Creek

Date: July 21, 2020

Attendees: MB and TB

Action: Beaver Dam Removal

Description: Removed three beaver dams that were directing flow through the overflow channel.

Project: Red Oak Trib. C

Date: July 28, 2020

Attendees: MB, TB

Action: Sprayed Invasive Species

Description: We sprayed MF Rose, Sericea, Thistle, Teasel, Bush Honeysuckle, and Curly Dock in the riparian zone with Rodeo. Spraying 10 gallons of Rodeo at 3% herbicide out of backpack sprayer.

Project: Terry's Branch

Date: August 26, 2020

Attendees: MB, TB

Action: Construction

Description: The most downstream low-water crossing washed out due to large woody debris jam diverting flow in desirable direction. We first cut the banks back to a less steep slope, then we spread 12 tons of shot rock to prevent further erosion of the channel.

Project: Ross Creek

Date: September 14, 2020

Attendees: TB

Action: Sprayed Invasive Species

Description: We sprayed Kudzu and Japanese Knotweed in the riparian zone with Rodeo. Spraying 2 gallons of Rodeo at 3% herbicide out of backpack sprayer.

Project: Higginson Henry

Date: September 15, 2020

Attendees: TB

Action: Sprayed Invasive Species

Description: We sprayed Autumn Olive and Kudzu in the riparian zone with Rodeo. Spraying 90 gallons of Rodeo at 4% herbicide out of the 25 gallon tanks in the UTV.

Project: Roger's Gap Trib. F

Date: October 5, 2020

Attendees: MB, TB

Action: Sprayed Invasive Species

Description: We sprayed MF Rose, Bush Honeysuckle, and Autumn Olive in the riparian zone with Rodeo. Spraying 15 gallons of Rodeo at 3% herbicide out of backpack sprayer.

Project: Roger's Gap Trib. A

Date: October 6, 2020

Attendees: MB, TB

Action: Sprayed Invasive Species

Description: We sprayed MF Rose, Bush Honeysuckle, and Autumn Olive in the riparian zone with Rodeo. Spraying 17 gallons of Rodeo at 3% herbicide out of backpack sprayer.

Project: Higginson Henry WMA

Date: October 7, 2020

Attendees: MB, TB

Action: Sprayed Invasive Species

Description: We sprayed Kudzu and Autumn Olive in the area adjacent to the riparian zone with Rodeo to prevent it from entering the project site. Spraying 41 gallons of Rodeo at 3% herbicide out of backpack sprayer.

Project: Ross Creek

Date: October 21, 2020

Attendees: TB

Action: Sprayed Invasive Species

Description: We sprayed Kudzu in the area adjacent to the riparian zone with Rodeo to prevent it from entering the project site. Spraying 25 gallons of Rodeo at 4% herbicide out of a truck with a 25 gallon sprayer.

Project: Ross Creek

Date: October 22, 2020 November 10-12, 2020

Attendees: MB, TB

Action: Invasive Species Remove

Description: We hand pulled cattails from the emergent wetland areas, pulling up the plant in its entirety to prevent re-sprout. We as well removed the entire plant from the area to prevent it from propagating.

Project: Hatchery Creek

Date: November 23, 2020

Attendees: MB and TB

Action: Sprayed Invasive Species

Description: We cut stump treated Autumn Olive in the riparian zone and wetland area with Rodeo. Spraying 0.25 gallons of 40% herbicide out of hand sprayers.

Project: Myer's Station

Date: December 7, 2020

Attendees: MB and TB

Action: Sprayed Invasive Species

Description: We cut stump treated Autumn Olive in the riparian zone and wetland area with Rodeo. Spraying 0.50 gallons of 40% herbicide out of hand sprayers.

Project: Roger's Gap Trib. B

Date: November 17, 2020

Attendees: MB and TB

Action: Construction

Description: Repaired blown around structures and eroding banks on Trib. B. Approximately used 2 tons of rock to amend the issue. We used the rock to add seals to structures, redirect flow into thalweg, and armor banks.

Appendix D – Approved Compensatory Mitigation Projects

Table 22.1, 22.2, and 22.3. List of Instrument Modifications for Approved Projects, by USACE District.

Table of Corps Approved Mitigation Projects: KDFWR Mitigation Program - Louisville LRL-2010-325							
PROJECT	COUNTY	SERVICE AREA	Instrument Mod. No.	404 PERMIT ID.NO.	404 PERMIT APPROVAL DATE	401 WQC ID. NO.	401 WQC APPROVAL DATE
ILF-KDFWR Elm Fork/Kleber WMA Stream Restoration Project	Owen	Lower Kentucky River Service Area	2	LRL-2012-00263	02/12/13	2012-050-1	10/22/12
ILF-KDFWR Indian Creek Stream Restoration Project (MOA)	Menifee	Upper Kentucky River Service Area	3	LRL-2012-00273	07/09/13	2013-009-1	03/07/13
ILF-KDFWR Roger's Gap Stream Restoration Project (MOA)	Scott	Lower Kentucky River Service Area	4	LRL-2012-00134	12/04/13	2013-026-1	06/26/13
ILF-KDFWR Eagle Creek Tributaries Restoration Project (MOA)	Union	Green River Service Area	5	LRL-2012-00716	01/16/15	2014-18-1M	06/04/14
ILF-KDFWR Myer's Station Stream Restoration (ILF-I)	Nicholas	Lower Licking River Service Area	6	LRL-2012-00637	04/20/16	2016-004-1	01/15/16
ILF-KDFWR Old Trace Creek Restoration (ILF-I)	Lewis	Big Sandy River Service Area	7	LRL-2013-00336	02/13/17	2016-029-1	04/26/16
KDFWR ILF Instrument Full Modification (to add 9 counties/change SA)	All	9 County Region		LRL-2010-325		NA	
ILF-KDFWR Goose Creek Restoration (ILF-I)	Casey	Green River Service Area	9	LRL-2012-00646	03/23/17	2016-090-7	09/21/16
ILF-KDFWR Minor's Creek Restoration (ILF-I)	Owen, Franklin	Lower Kentucky River Service Area	10	LRL-2013-00091	05/22/17	2016-097-1	10/31/16
ILF-KDFWR Ross Creek Stream & Wetland Restoration Phase I & II (MOA & ILF-I)	Lee, Estill	Upper Kentucky River Service Area	11	LRL-2013-00143	10/26/17	2016-111-7R	09/25/17
ILF-KDFWR Red Oak Creek Restoration Project, Drainage C (ILF-I)	Owen	Lower Kentucky River Service Area	12	LRL-2014-00500	04/17/18	2017-091-1	12/18/17
ILF-KDFWR Big Farm Indian Creek Restoration Project (ILF-I)	Bath	Lower Licking River Service Area	13	LRL-2014-00209	05/30/19	2019-001-7	10/05/18
Table of Corps Approved Mitigation Projects: KDFWR Mitigation Program - Nashville LRN-2011-00709							
PROJECT	COUNTY	SERVICE AREA	Instrument Mod. No.	404 PERMIT ID.NO.	404 PERMIT APPROVAL DATE	401 WQC ID. NO.	401 WQC APPROVAL DATE
Sinking Valley Preservation Project	Pulaski	Upper Cumberland	2	LRN-2012-00326	12/11/2013	n/a	n/a
Hatchery Creek Restoration Project	Russell	Lower Cumberland	3	LRN-2010-00444	7/25/2014	23-041-7M	7/15/2014
Blue Spring Creek Stream Restoration Project	Trigg	Lower Cumberland	4	LRN-2013-00776	4/23/2019	2015-092-1R	1/3/2019
Table of Corps Approved Mitigation Projects: KDFWR Mitigation Program - Memphis MVM-2013-95							
PROJECT	COUNTY	SERVICE AREA	Instrument Mod. No.	404 PERMIT ID.NO.	404 PERMIT APPROVAL DATE	401 WQC ID. NO.	401 WQC APPROVAL DATE
Obion II	Hickman	Jackson Purchase	1	MVM-2010-074	4/29/2014	2010-027-1	3/23/2010

Appendix E – 3-Year Compliance Status

The following charts and tables show the breakdown of In-Lieu-Fee (ILF) credit obligation due (3-years from an ILF sales year to initiation of habitat improvement on a project) for calendar year 2020 (credit sales through 2017) compared to current project status. The first two charts are histogram summaries of these values by service area, streams and wetlands, separately. On the summary charts, for each service area the first column represents the ILF obligation through 2017 and the second column represents both (a) credit values for approved projects for which habitat improvement started in or before 2020 and (b) credit values for projects that have been approved within the LOP process (Conceptual Plan approval or further development within the LOP process timeline).

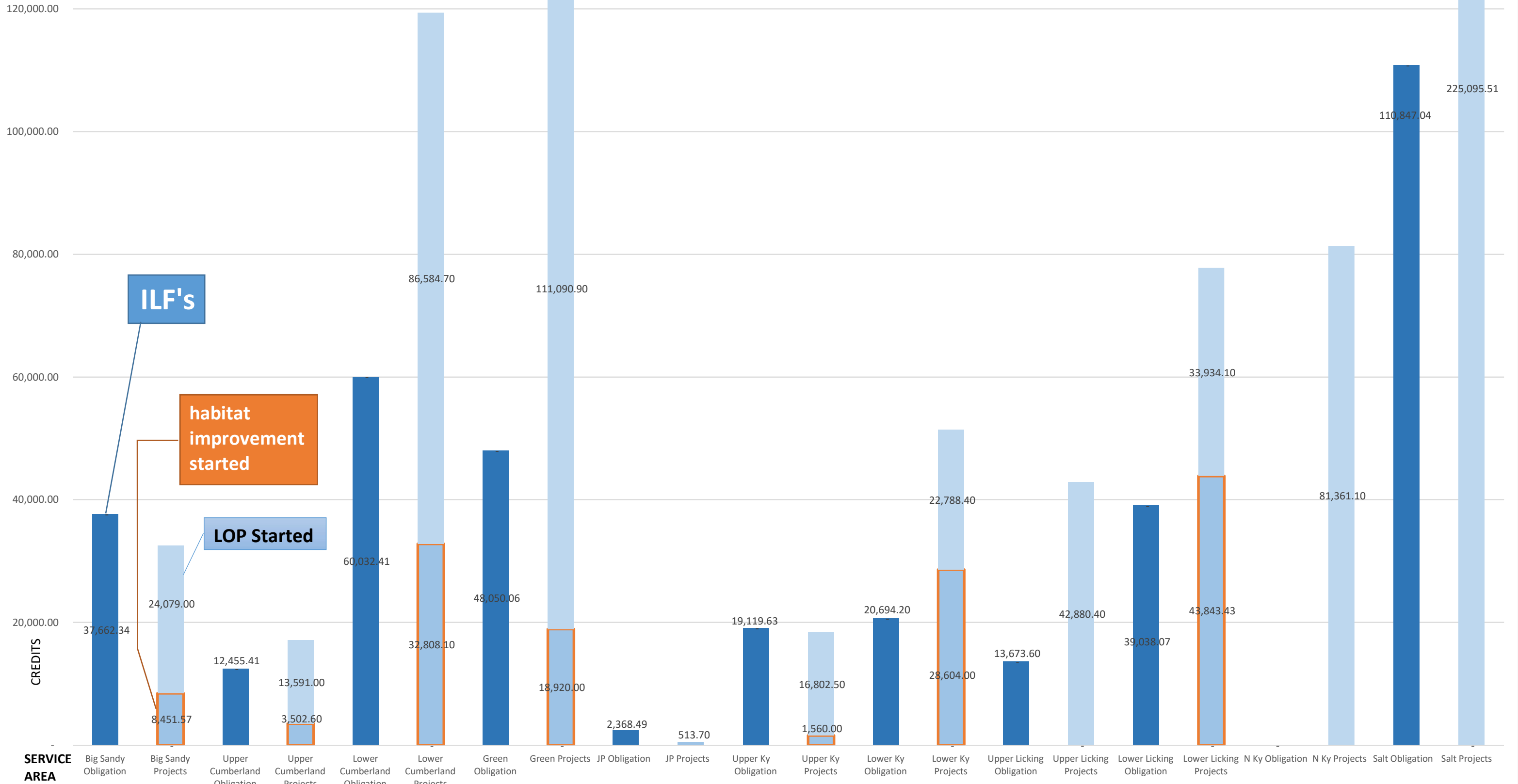
The ‘stream’ summary chart shows the Lower Licking and Lower Kentucky Service Areas have met the 3-Year obligation to start habitat improvement, while all service areas (except Big Sandy Service Area) meet or exceed the 3-year obligation when considering projects approved within the LOP process timeline. The ‘wetland’ summary chart shows the Lower Licking Service Area meets the 3-Year habitat improvement obligation and the Salt River, Northern KY, Jackson Purchase and Green River Service Areas exceed the obligation when considering projects approved within the LOP process timeline, with the remaining service areas not projected to meet the wetland ILF obligation with currently active projects.

The pages following the two summary charts contain tables and charts, per service area, showing the details of credit sales obligations, by year, distributed by active projects and compared with status, similar to the summary. Each service area page also includes a chart projecting the 2021 3-Year compliance status.

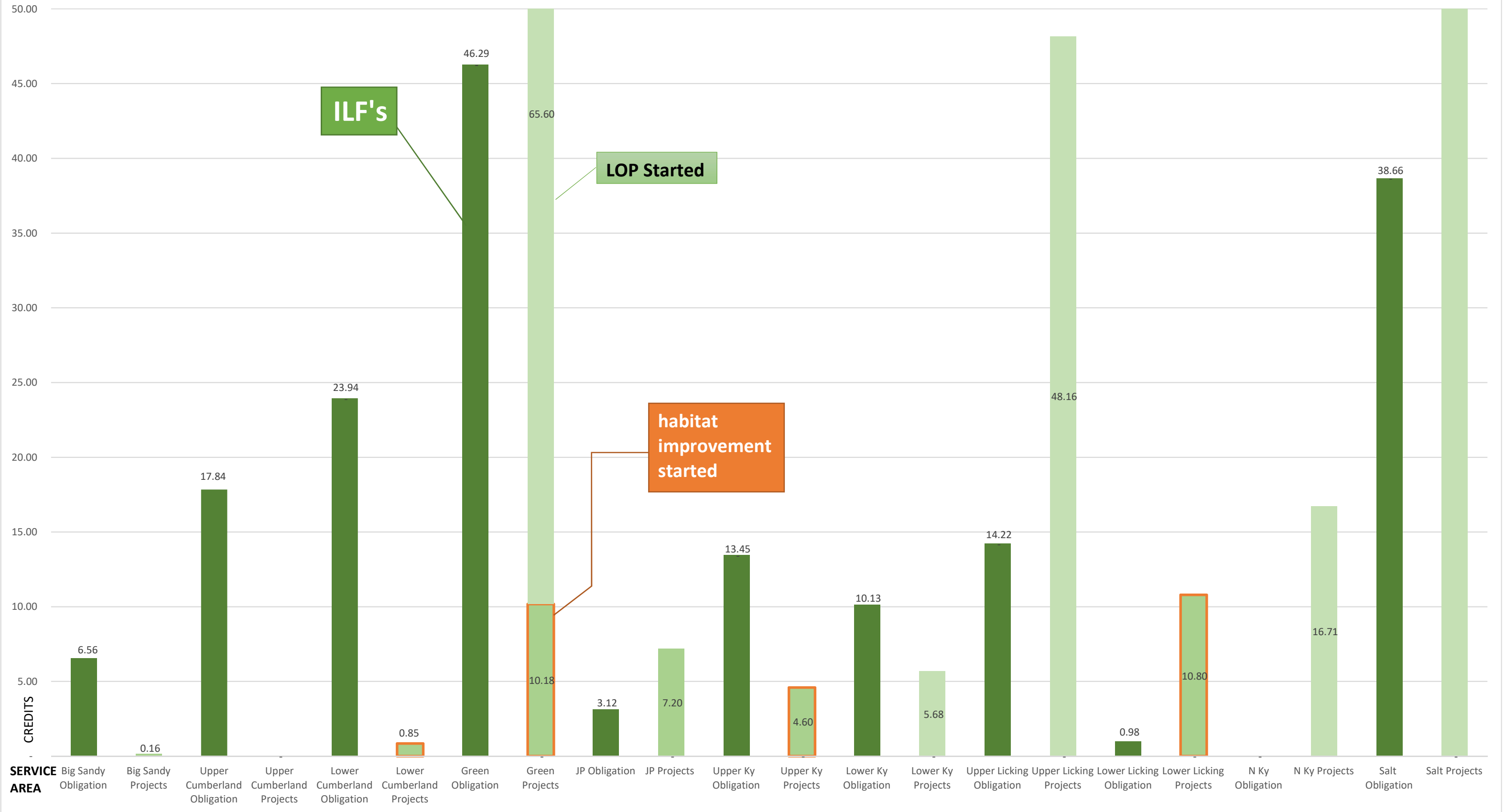
At this time, FILO (a) requests extension of the 3-year delivery metric in order to pursue current active projects and new project site finding efforts in service areas behind schedule. The pending proposed instrument modification will resolve several ‘behind schedule’ service areas by applying currently active projects to the new standardized service area distribution. Additionally, FILO intends to increase use of alternative contract methods such as Full Delivery solicitation and contracting in 2021 in historically problematic service areas in order meet the 3-year obligation goals.

Figure 15. 2020 3-year Compliance Charts and Data Summaries, by Service Area. (Figure 15 consists of the following 13 pages)

Summary: 2020 Stream 3-YR Status



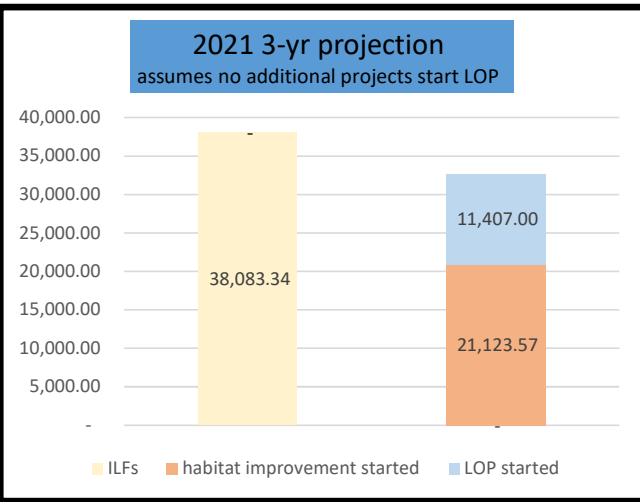
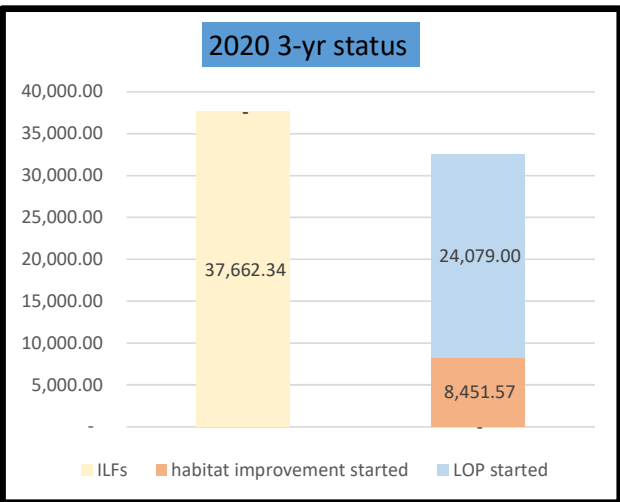
Summary: 2020 Wetland 3-YR Status



STREAM									
ILFs		PROJECTS							
Credit History		Old Trace	Whites Creek	Mabry 2 (Green and Johnson)	Mabry 2 (Mart Whitt)	Mabry 2 (Smith)	Staggs 1	Mart Whitt 2	
Year	Credits Sold	Credit Est	Credit Est	Credit Est	Credit Est	Credit Est	Credit Est	Credit Est	
Transition	23,103.00	8,451.57	3,955.00	2,971.00	3,906.00	1,840.00	1,979.43	-	
2012	2,376.28	-	-	-	-	-	2,376.28	-	
2013	5,707.60	-	-	-	-	-	2,393.29	3,314.31	
2014	3,535.58	-	-	-	-	-	-	1,343.69	
2015	2,599.45	-	-	-	-	-	-	-	
2016	176.60	-	-	-	-	-	-	-	
2017	138.83	-	-	-	-	-	-	-	
2017	25.00	-	-	-	-	-	-	-	
2018	-	-	-	-	-	-	-	-	
2018	421.00	-	-	-	-	-	-	-	
2019	-	-	-	-	-	-	-	-	
2020	-	-	-	-	-	-	-	-	
2020	-	-	-	-	-	-	-	-	
Future	-	-	-	-	-	-	-	-	
2019 Total	37,498.51	-	-	-	-	-	-	-	
2020 Total	37,662.34	8,451.57	3,955.00	2,971.00	3,906.00	1,840.00	6,749.00	4,658.00	

sum of project credits for projects where habitat improvement has started: 8,451.57

2020 sum of project credits for all projects in the LOP process (CP presented to IRT): 24,079.00



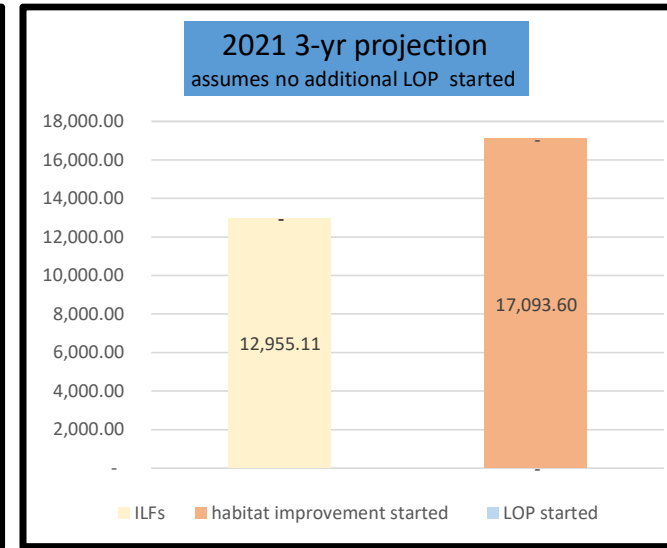
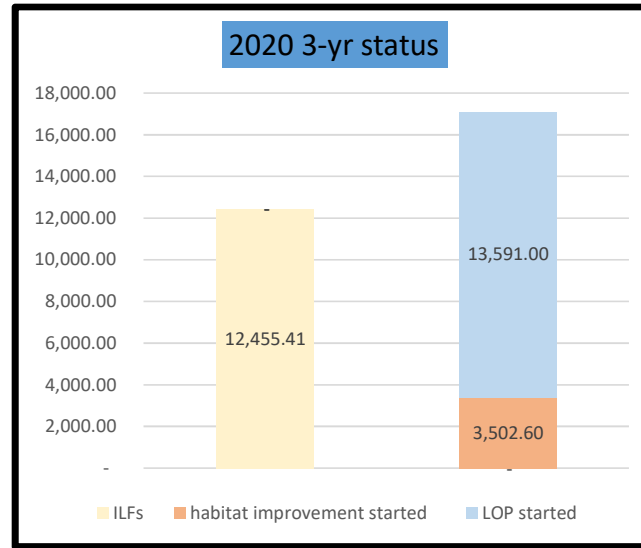
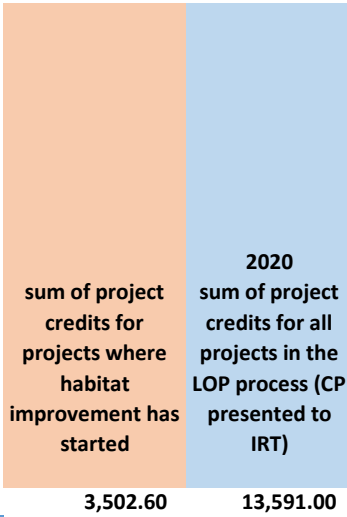
WETLAND			
ILFs	PROJECTS		
Credit History	Whites Creek	Mabry 2 (Smith)	
Year	Credits Sold	Credit Est	Credit Est
Transition	3.550	0.110	0.050
2012	2.410	-	-
2013	0.024	-	-
2014	0.577	-	-
2015	-	-	-
2016	-	-	-
2017	-	-	-
2017	-	-	-
2018	-	-	-
2018	-	-	-
2019	-	-	-
2020	-	-	-
2020	-	-	-
Future	-	-	-
Total	6.561	0.110	0.05

sum of project credits for projects where habitat improvement has started: -

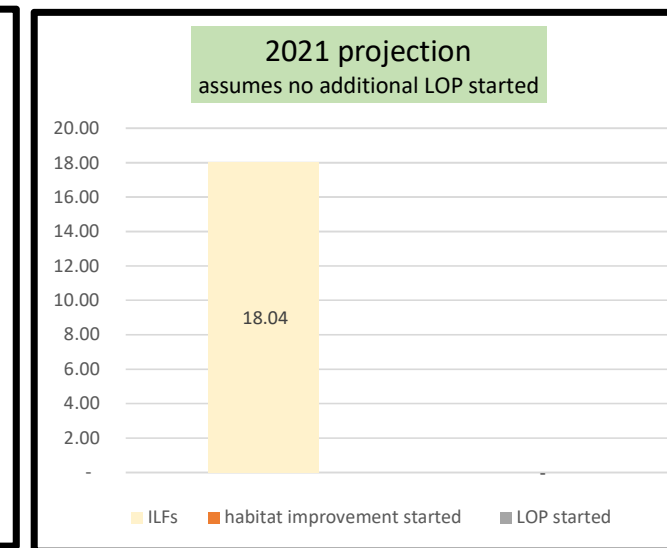
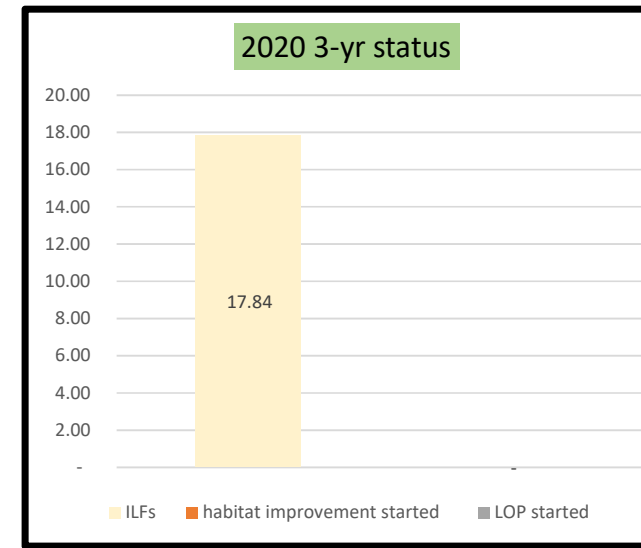
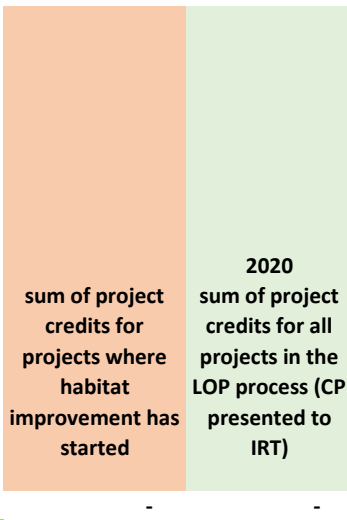
2020 sum of project credits for all projects in the LOP process (CP presented to IRT): 0.16

Project	Status		Baseline Info				Milestone Dates										NOTE
	Begin Construct Year	Status	Site Protection Type	County	Credit Est	USACE LRL#/LRN#/MVM#	IRT Design Review Date	JD Site Visit	Submit Draft MP	401 Application Date	401 FP Permit Received	401 WQC Permit Received	404 Application Date	404 Permit Received	Begin Construct	Initial Physical and Biological Improvement	
Ed Mabry 2	2021	Permit	Deed Restriction	Elliott	8717	LRL-2013-598 LRL-2013-1013 LRL-2012-478	NA	NA	NA	5/7/2018 12/16/2019	5/14/2018	5/14/2020	6/26/2020	Spring 2021	Spring 2021	2019	Contract in place, ready to start construction
Whites Creek	2021	Permit	Easement on Private	Boyd	3955	LRL-2012-634	NA	NA	NA	6/28/2016	7/8/2016	3/5/2018	Spring 2021	Spring 2021	Fall 2021	2021	SPI should close Spring 2021
Staggs 1	2022	Pre-Permit	Deed Restriction	Lewis	6749	LRL-2016-00153	Spring 2021	Spring 2021	Summer 2021	Summer 2021	Summer 2021	Fall 2021	Fall 2022	Spring 2022	Fall 2022	2021	SPI in place, design underway.
Mart Whit 2	2023+	Pre-Permit	Deed Restriction	Elliott	4658	LRL-2020-00578	tba	tba	tba	tba	tba	tba	tba	tba	tba	tba	Property Adjacent to Mabry WMA. Cp Presented to IRT

STREAM			
ILFs		PROJECTS	
Credit History		Sinking Valley	Burnette Branch
Year	Credits Sold	Credit Est	Credit Est
Transition	3,954.00	3,502.60	451.40
2012	3,182.19	-	3,182.19
2013	49.50	-	49.50
2014	52.25	-	52.25
2015	298.00	-	298.00
2015	4,764.99	-	-
2016	22.03	-	22.03
2017	132.45	-	132.45
2017	-	-	-
2018	156.00	-	156.00
2018	343.70	-	343.70
2019	985.00	-	985.00
2020	-	-	-
2020	56.20	-	56.20
Future	-	-	-
2019 Total	12,322.96	-	-
2020 Total	12,455.41	3,502.60	13,591.00



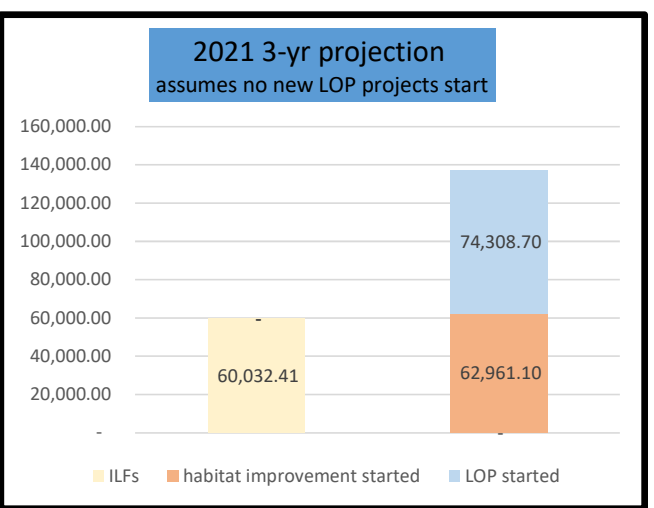
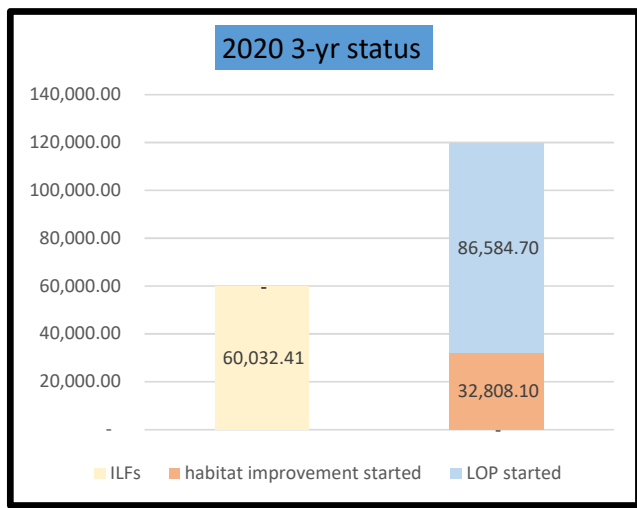
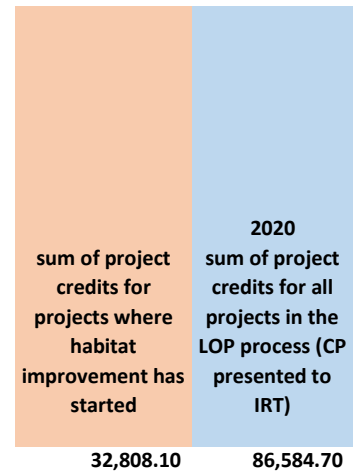
WETLAND	
ILFs	PROJECTS
Credit History	
Year	Credits Sold
Transition	2.250
2012	0.381
2013	3.360
2014	4.438
2014	0.134
2015	7.278
2016	-
2017	-
2017	-
2018	-
2018	0.200
2019	0.700
2020	-
2020	1.100
Future	-
2019 Total	17.841
2020 Total	17.841



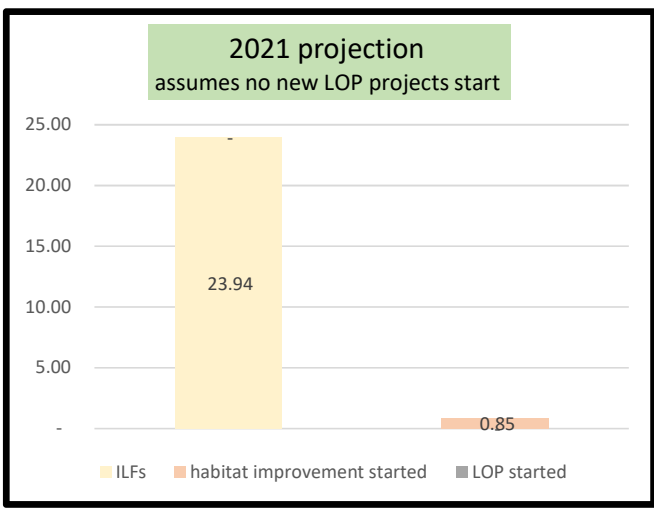
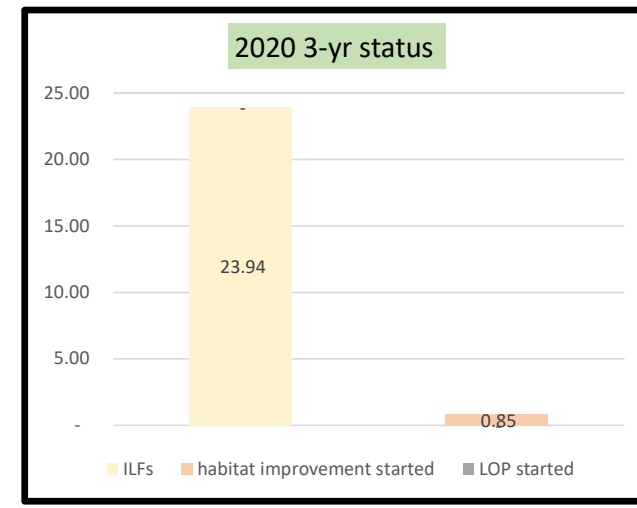
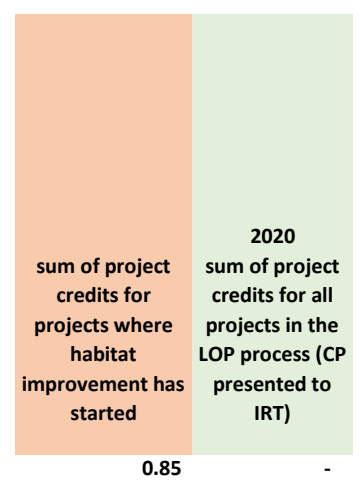
Project	Status		Baseline Info					Milestone Dates								
	Begin Construct Year	Status	Site Protection Type	County	USACE LRL#/LRN#/MVM#	IRT Design Review Date	JD Site Visit	Submit Draft MP	401 Application Date	401 FP Permit Received	401 WQC Permit Received	404 Application Date	404 Permit Received	Begin Construct	Initial Physical and Biological Improvement	NOTE
Burnett Branch	2021	Pre-Permit	Deed Restriction	Wayne, McCreary	LRN-2013-00116	NA	NA	Winter 2021	Winter 2021	Winter 2021	Spring 2021	Spring 2021	Summer 2021	Fall 2021	2021	Solicitation for construction Summer 2021

Next project effort to focus on site finding for wetlands and possible full delivery solicitation summer 2021, as described in the past due strategy in Appendix F

STREAM					
ILFs		PROJECTS			
Credit History		Blue Spring Creek	Mud Camp 2 (Waldon)	Crow Creek	Mud Camp 3 (Monday)
Year	Credits Sold	Credit Est	Credit Est	Credit Est	Credit Est
Transition	6,977.00	6,977.00	-	56,431.70	-
2012	8,893.00	8,893.00	-	-	-
2013	1,917.71	1,917.71	-	-	-
2014	2,346.00	2,346.00	-	-	-
2015	2,413.20	2,413.20	-	-	-
2016	850.00	850.00	-	-	-
2017	27,938.90	9,411.19	18,527.71	-	-
2017	8,696.60	-	8,696.60	-	-
2018	-	-	-	-	-
2018	-	-	-	-	-
2019	629.00	-	629.00	-	-
2020	-	-	-	-	-
2020	-	-	-	-	-
Future	-	-	2,299.69	56,431.70	17,877.00
2019 Total	23,396.91	-	-	-	-
2020 Total	60,032.41	32,808.10	30,153.00	56,431.70	17,877.00



WETLAND		
ILFs		PROJECTS
Credit History		Hatchery Creek
Year	Credits Sold	Credit Est
Transition	9.980	0.846
2012	4.180	-
2013	-	-
2014	3.600	-
2015	0.700	-
2016	-	-
2017	-	-
2017	5.483	-
2018	-	-
2018	-	-
2019	-	-
2020	-	-
2020	0.500	-
Future	-	-
2019 Total	18.460	-
2020 Total	23.943	0.846



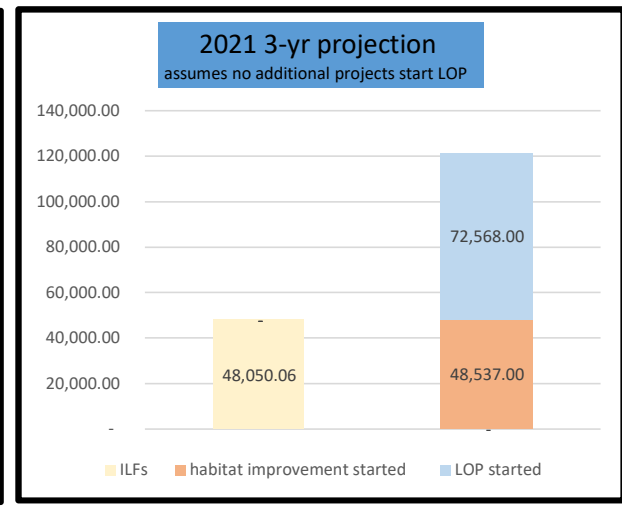
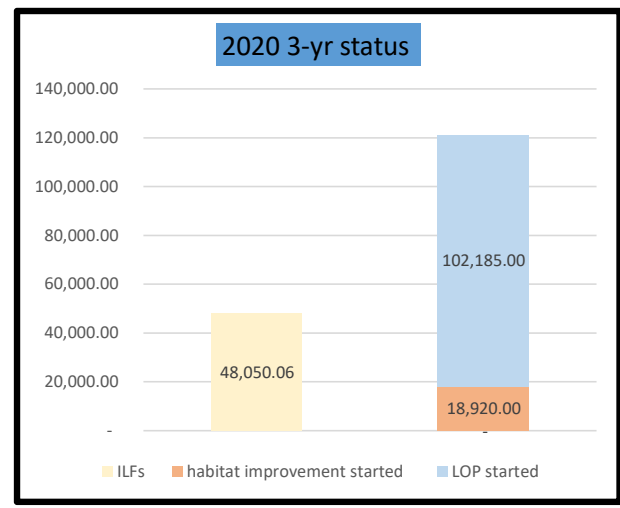
Project	Begin Construct Year	Status	Site Protection Type	County	Credit Est	Baseline Info										Initial Physical and Biological Improvement	NOTE
						USACE LRL#/LRN#/MVM#	IRT Design Review Date	JD Site Visit	Submit Draft MP	401 Application Date	401 FP Permit Received	401 WQC Permit Received	404 Application Date	404 Permit Received	Begin Construct		
Blue Spring	2020	Construct	Deed restriction	Trigg	32808	LRN-2013-00776	NA	NA	NA	1/13/2015	2/10/2015	9/27/2016	11/4/2016	12/2/2019	9/1/2020	2020	Construction should be complete by April 2022
Mud Camp 2	2023	Pre-Permit	Deed restriction	Monroe	30153	LRN-2019-00761	tba	tba	Winter 2022	2022	2022	2022	2022	2023	tba	2021	MC2 will be analysed for sectional implementation
Crow Creek	2023	Pre-Permit	Deed restriction	Clinton, Cumberland	56431	LRN-2020-00539	tba	tba	Winter 2022	2022	2022	2022	2022	2023	tba	2021	Crow will be analysed for sectional implementation
Mud Camp 3	tba	Pre-Permit	Deed restriction	Monroe	17877	LRN-2020-01203	tba	tba	Winter 2022	2022	2022	2022	2022	2023	tba	2023	completes watershed portection for portions of Mud Camp 2

Next project effort to focus on site finding for wetlands and possible full delivery solicitation summer 2021, as described in the past due strategy in Appendix F

STREAM										
ILFs		PROJECTS								
Credit History		Eagle Creek UT	Goose Creek	Big Rivers	Bender Hollow	Trammel 2	Ivy Ck, aka Massey Springs	Gabbard Branch		
Year	Credits Sold	Credit Est	Credit Est	Credit Est	Credit Est	Credit Est	Credit Est	Credit Est		
Transition	14,251.00	1,848.00	12,403.00	-	-	-	-	-		
2012	7,582.00	-	4,669.00	2,913.00	-	-	-	-		
2012	3,142.60	-	-	38.00	3,104.60	-	-	-		
2013	1,621.85	-	-	-	1,621.85	-	-	-		
2014	14,688.21	-	-	-	14,688.21	-	-	-		
2015	1,405.40	-	-	-	1,405.40	-	-	-		
2016	2,343.00	-	-	-	2,179.94	163.06	-	-		
2017	582.00	-	-	-	-	582.00	-	-		
2017	2,434.00	-	-	-	-	2,434.00	-	-		
2018	-	-	-	-	-	-	-	-		
2018	-	-	-	-	-	-	-	-		
2019	2,867.00	-	-	-	-	486.94	2,380.06	-		
2020	-	-	-	-	-	-	-	-		
2020	2,855.00	-	-	-	-	-	2,855.00	-		
Future	-	-	-	-	-	-	23,764.94	43,568.00		
2019 Total	45,034.06	1,848.00	17,072.00	2,951.00	23,000.00	3,666.00	29,000.00	43,568.00		
2020 Total	48,050.06								18,920.00	102,185.00

sum of project credits for projects where habitat improvement has started: 18,920.00

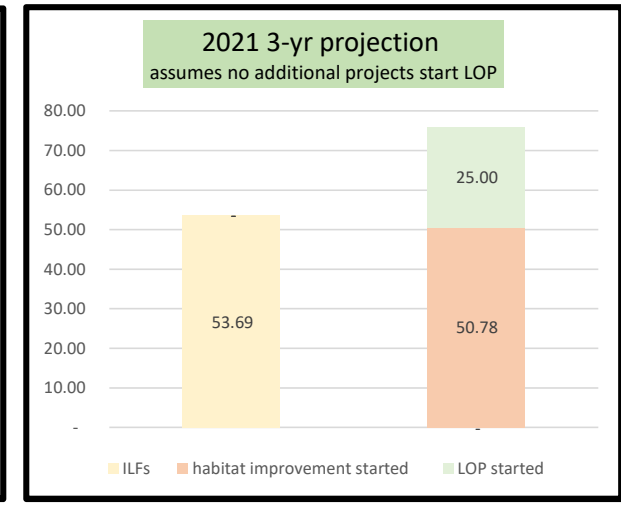
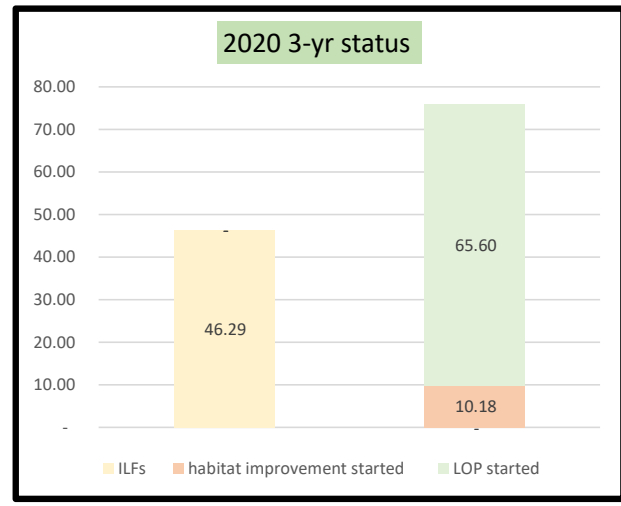
2020 sum of project credits for all projects in the LOP process (CP presented to IRT): 102,185.00



WETLAND										
ILFs		PROJECTS								
Credit History		Eagle Creek UT	Goose Creek	Big Rivers		Massey Springs	Gabbard Branch			
Year	Credits Sold	Credit Est	Credit Est	Credit Est		Credit Est	Credit Est			
Transition	10.280	10.280	-	-		-	-			
2012	7.444	-	(0.100)	7.544		-	-			
2013	3.814	-	-	3.814		-	-			
2014	5.700	-	-	5.700		-	-			
2015	11.190	-	-	11.190		-	-			
2016	4.500	-	-	4.500		-	-			
2017	3.000	-	-	3.000		-	-			
2017	0.360	-	-	0.360		-	-			
2018	7.400	-	-	4.492		2.908	-			
2018	-	-	-	-		-	-			
2019	7.300	-	-	-		7.300	-			
2020	-	-	-	-		-	-			
2020	-	-	-	-		-	-			
Future	-	-	-	-		8.09	6.700			
2019 Total	42.928									
2020 Total	46.288	10.280	(0.100)	40.600		18.300	6.700		10.18	65.60

sum of project credits for projects where habitat improvement has started: 10.18

2020 sum of project credits for all projects in the LOP process (CP presented to IRT): 65.60



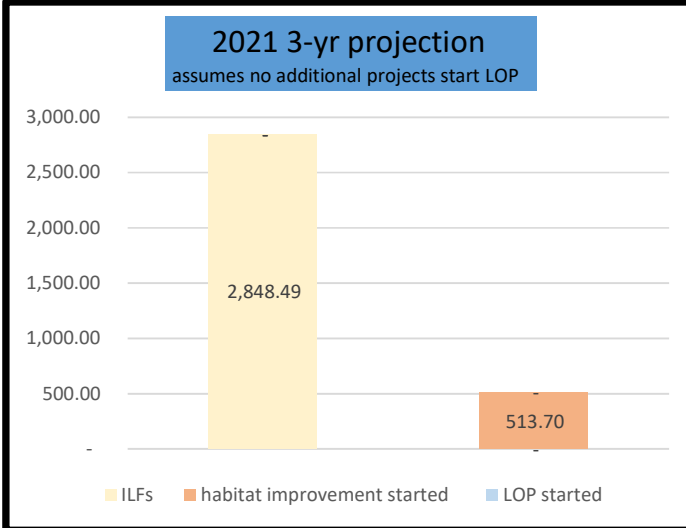
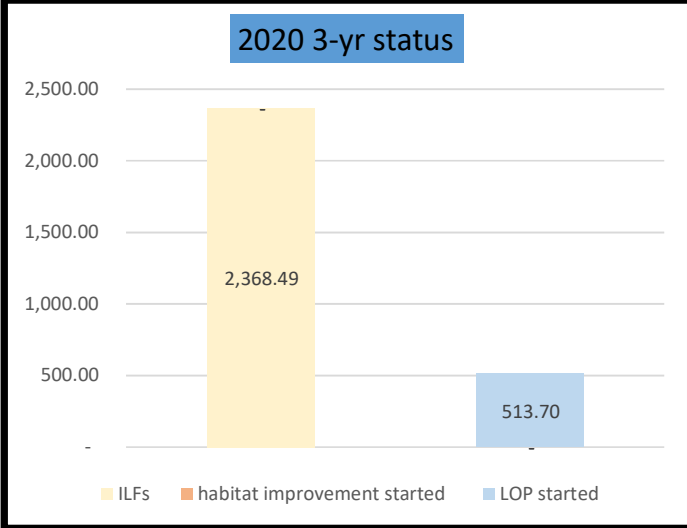
Project	Baseline Info										Milestone Dates							NOTE
	Begin Construct Year	Status	Site Protection Type	County	Credit Est	USACE LRL#/LRN#/MVM#	IRT Design Review Date	JD Site Visit	Submit Draft MP	401 Application Date	401 FP Permit Received	401 WQC Permit Received	404 Application Date	404 Permit Received	Begin Construct	Initial Physical and Biological Improvement		
Big Rivers	2021	Pre-Permit	Deed Restriction	Union	2951 S, 40 W	LRL-2016-00373	10/4/2019	1/7/2020	12/8/2020	Winter 2021	Winter 2021	Spring 2021	Spring 2021	Summer 2021	Fall 2021	2021		
Trammel 2	2021	Pre-Permit	Easement on Private	Allen	3665	LRL-2018-00320	Spring 2021	Waived	Spring 2021	Spring 2021	Spring 2021	Summer 2021	Summer 2021	Fall 2021	Fall 2021	2022	part of existing design-build contract.	
Bender Hollow	2021	Pre-Permit	Easement on Private	Lincoln	23000	LRL-2018-00982	11/5/2020	1/6/2020	Spring 2021	Spring 2021	Spring 2021	Summer 2021	Summer 2021	Fall 2021	Fall 2021	2021	SPI scheduled to close Spring 2022, adding 72-acre tract to property that could add 35 acres of watershed protection	
Ivy Creek	2023	Phase A	Easement on Private	Warren	29000 S, 18 W	LRL-2019-00895	tba	tba	tba	tba	tba	tba	tba	tba	Fall 2022	2022	Contract presented to landowner winter 2021	
Gabbard Branch	2023	Phase A	Deed Restriction	Butler	43568 S, 6.7 W	LRL-2020-00169	tba	tba	tba	tba	tba	tba	tba	tba	Fall 2022	2022	Contract presented to landowner winter 2021	

STREAM		
ILFs	PROJECTS	
Credit History		
Year	Credits Sold	Kaler Bottom Credit Est
Transition	19.00	19.00
2012	-	-
2013	-	-
2014	-	-
2015	1,209.49	494.70
2016	1,140.00	-
2017	-	-
2017	-	-
2018	-	-
2018	480.00	-
2019	-	-
2020	-	-
2020	66.00	-
Future		
2019 Total	2,368.49	513.70
2020 Total	2,368.49	

sum of project credits for projects where habitat improvement has started

2020 sum of project credits for all projects in the LOP process (CP presented to IRT)

- 513.70

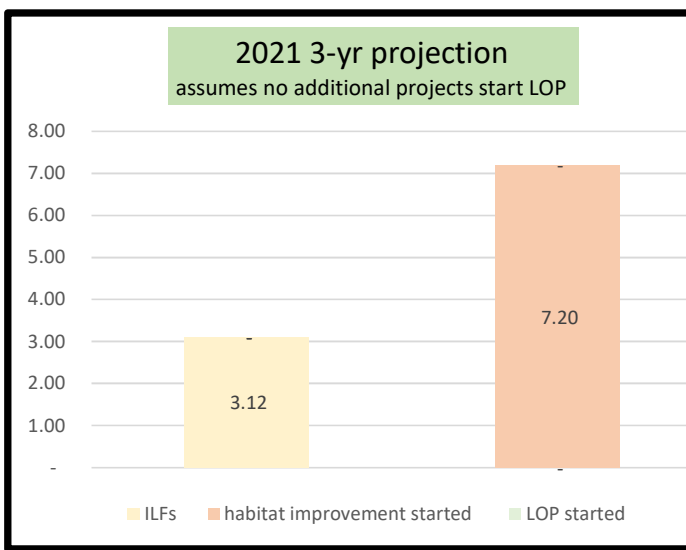
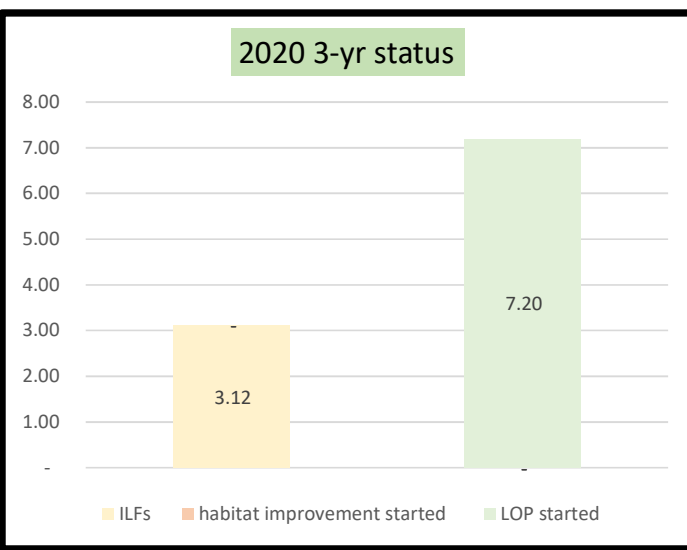


WETLAND		
ILFs	PROJECTS	
Credit History		
Year	Credits Sold	Kaler Bottom Credit Est
Transition	2.300	2.300
2012	-	-
2013	0.820	0.820
2014	-	-
2015	-	-
2016	-	-
2017	-	-
2017	-	-
2018	-	-
2018	-	-
2019	-	-
2020	-	-
2020	3.600	3.600
Future		0.480
2019 Total	3.120	7.200
2020 Total	3.120	

sum of project credits for projects where habitat improvement has started

2020 sum of project credits for all projects in the LOP process (CP presented to IRT)

- 7.20



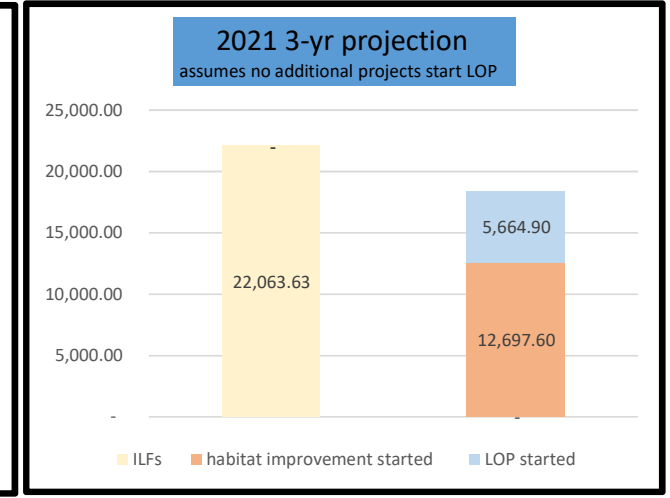
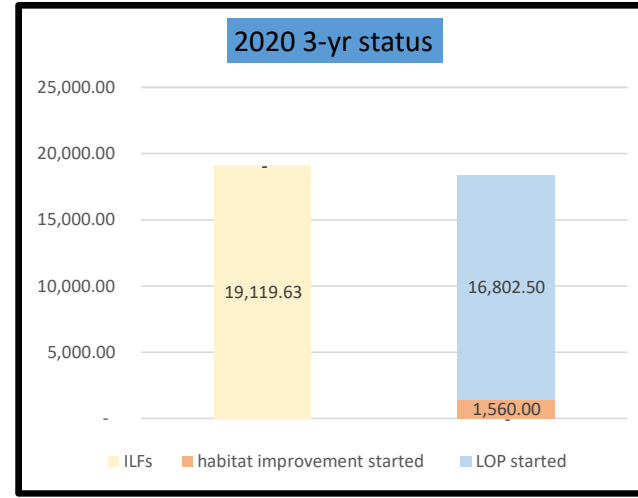
Project	Begin Construct Year	Status	Baseline Info				Milestone Dates										NOTE	
			Site Protection Type	County	Credit Est	USACE LRL#/LRN#/MVM#	IRT Design Review Date	JD Site Visit	Submit Draft MP	401 Application Date	401 FP Permit Received	401 WQC Permit Received	404 Application Date	404 Permit Received	Begin Construct	Initial Physical and Biological Improvement		
Kaler	2022	Pre-Permit	Deed Restriction	Graves	513 S, 7.2 W	LRN-2019-00536	Spring 2021	Spring 2021	Summer 2021	Summer 2021	Summer 2021	Summer 2021	Fall 2021	Fall 2022	Spring 2022	Fall 2022	2021	

Next project effort to focus on site finding for streams & wetlands with possible full delivery solicitation summer 2021, as described in the past due strategy in Appendix F

STREAM										
ILFs			PROJECTS							
Credit History			Ross 2	Ross 3	Little Sexton Creek	Ross 4	Ross 5	Ross 6		
Year	Credits Sold	Cost per Credit	Credit Est	Credit Est	Credit Est	Credit Est	Credit Est	Credit Est		
Transition	-		-	-	-	-	-	-		
2012	2,349.86	\$ 488.00	1,560.00	789.86	-	-	-	-		
2013	999.13	\$ 488.00	-	999.13	-	-	-	-		
2014	2,037.17	\$ 488.00	-	2.61	2,034.56	-	-	-		
2015	965.86	\$ 566.25	-	-	965.86	-	-	-		
2016	7,398.89	\$ 566.25	-	-	6,345.58	1,053.31	-	-		
2017	5,368.72	\$ 566.25	-	-	-	1,149.59	430.00	3,032.00		
2017	-	\$ 568.00	-	-	-	-	-	-		
2018	1,648.00	\$ 568.00	-	-	-	-	-	-		
2018	1,296.00	\$ 628.00	-	-	-	-	-	-		
2019	9,093.00	\$ 628.00	-	-	-	-	-	-		
2020	-	\$ 628.00	-	-	-	-	-	-		
2020	634.00	\$ 696.00	-	-	-	-	-	-		
Future		\$ 696.00	-	-	-	-	-	-		
2019 Total	13,750.91		1,560.00	1,791.60	9,346.00	2,202.90	430.00	3,032.00		
2020 Total	19,119.63									

sum of project credits for projects where habitat improvement has started: 1,560.00

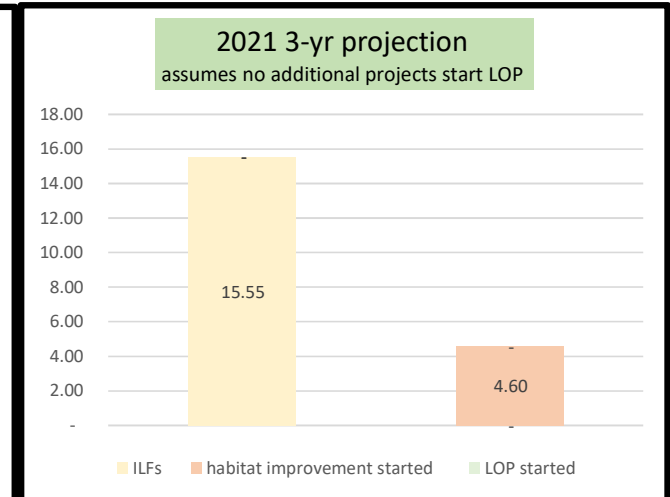
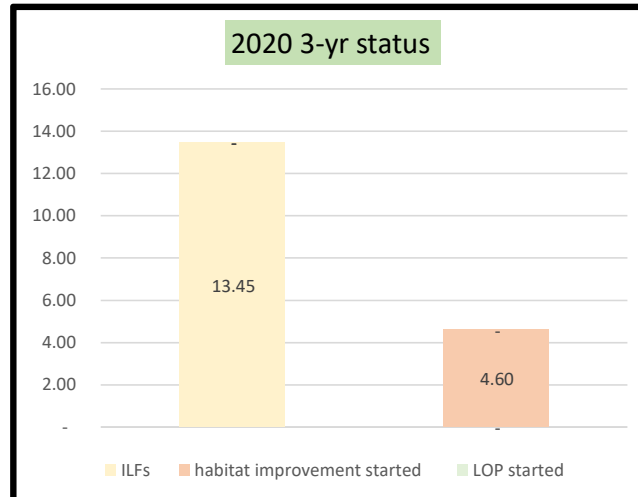
2020 sum of project credits for all projects in the LOP process (CP presented to IRT): 16,802.50



WETLAND										
ILFs			PROJECTS							
Credit History			Ross 2							
Year	Credits Sold	Cost per Credit	Credit Est							
Transition	-	\$ -	-							
2012	-	\$ -	-							
2013	1.200	\$ 24,000.00	1.200							
2014	-	\$ 36,672.00	-							
2015	-	\$ 34,380.00	-							
2016	3.300	\$ 34,380.00	3.300							
2017	8.950	\$ 34,380.00	0.100							
2017	-	\$ 36,672.00	-							
2018	2.100	\$ 36,672.00	-							
2018	-	\$ 39,600.00	-							
2019	5.200	\$ 39,600.00	-							
2020	0.400	\$ 39,600.00	-							
2020	-	\$ 49,200.00	-							
Future		\$ 49,200.00	-							
2019 Total	4.500		4.600							
2020 Total	13.450									

sum of project credits for projects where habitat improvement has started: 4.60

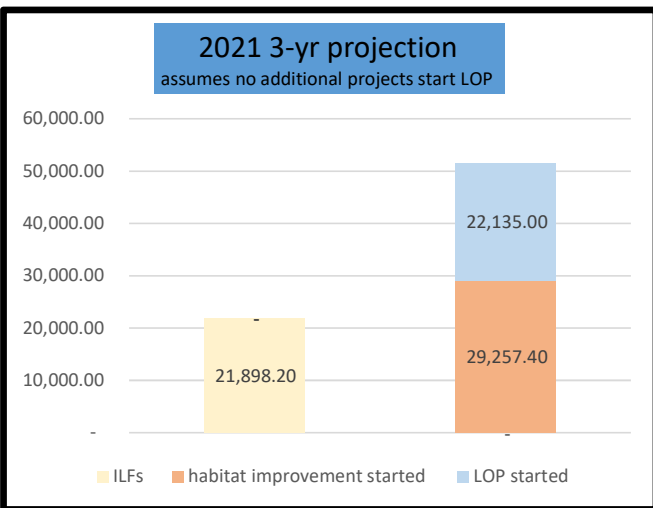
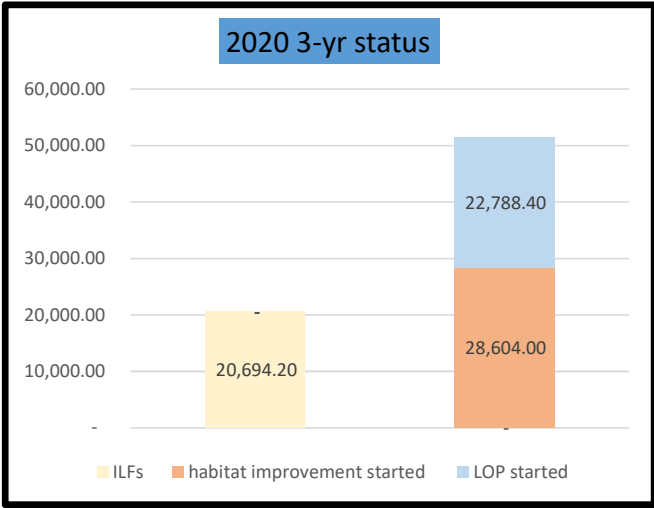
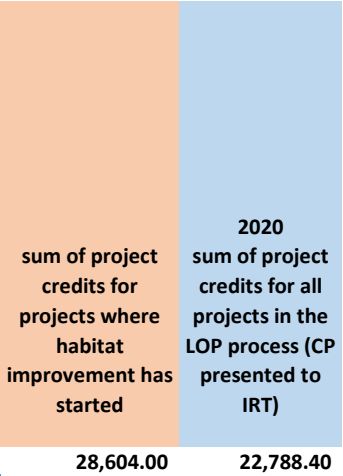
2020 sum of project credits for all projects in the LOP process (CP presented to IRT): -



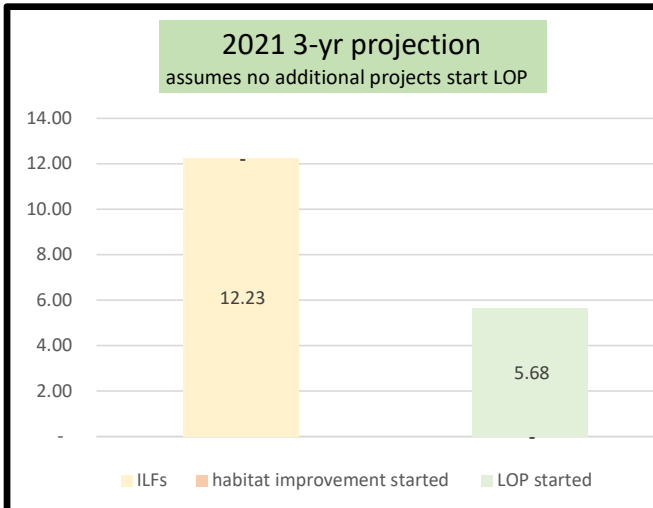
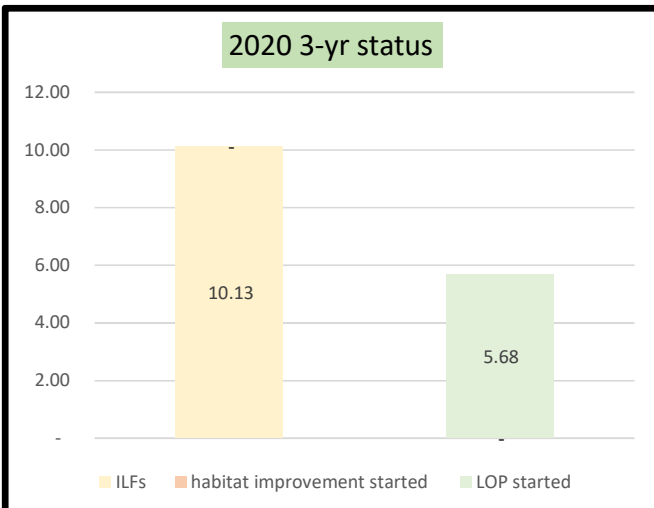
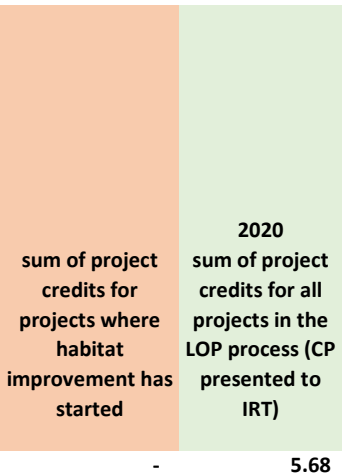
Project	Begin Construct Year	Status	Site Protection Type	Baseline Info			Milestone Dates										NOTE
				County	Credit Est	USACE LRL#/LRN#/MVM#	IRT Design Review Date	JD Site Visit	Submit Draft MP	401 Application Date	401 FP Permit Received	401 WQC Permit Received	404 Application Date	404 Permit Received	Begin Construct	Initial Physical and Biological Improvement	
Little Sextons	2022	Pre-Permit	Deed restriction	Jackson, Clay	9346	LRL-2018-00981	Spring 2021	Spring 2021	Summer 2021	Summer 2021	Summer 2021	Fall 2021	Fall 2022	Spring 2022	Fall 2022	2021	
Ross Creek III	2022	Pre-Permit	Deed restriction	Lee	1791	LRL-2017-00042	Spring 2021	Spring 2021	Summer 2021	Summer 2021	Summer 2021	Fall 2021	Fall 2022	Spring 2022	Fall 2022	2021	SPI and preservation portions in place, re-evaluating mitigation strategy to re-present asap
Ross Creek 4	tba	Phase A	Deed restriction	Lee	2202	LRL-2019-00563	tba	tba	tba	tba	tba	tba	tba	tba	tba	tba	adjacent to USFS and in watershed of Ross Ck 1 & 2
Ross Creek 5	tba	Phase A	Deed restriction	Lee	430	LRL-2020-00188	tba	tba	tba	tba	tba	tba	tba	tba	tba	tba	adjacent to and in watershed of Ross Ck 1, 2 & 3
Ross Creek 6	tba	Phase A	Deed restriction	Lee	3032	LRL-2020-00362	tba	tba	tba	tba	tba	tba	tba	tba	tba	tba	adjacent to and in watershed of Ross Ck 1, 2 & 3

Next project effort to focus on site finding for streams & wetlands with possible full delivery solicitation summer 2021, as described in the past due strategy in Appendix F

STREAM					
ILFs		PROJECTS			
Credit History		Minors Branch	Red Oak C	Minors Branch 2 (Bogardus)	Red Oak A-B-D
Year	Credits Sold	Credit Est	Credit Est	Credit Est	Credit Est
Transition	-	-	-	-	-
2012	807.00	807.00	-	-	-
2013	14,654.20	14,654.20	-	-	-
2014	606.00	606.00	-	-	-
2015	3,095.00	3,095.00	-	-	-
2016	409.00	409.00	-	-	-
2017	883.00	883.00	-	-	-
2017	240.00	240.00	-	-	-
2018	618.00	618.00	-	-	-
2018	586.00	132.80	453.20	-	-
2019	1,043.00	-	1,043.00	-	-
2020	3,565.00	-	3,565.00	-	-
2020	1,211.00	-	1,211.00	-	-
Future	-	-	886.80	653.40	22,135.00
2019 Total	19,571.20	21,445.00	7,159.00	653.40	22,135.00
2020 Total	20,694.20	-	-	-	-



WETLAND		
ILFs		PROJECTS
Credit History		Pond Creek
Year	Credits Sold	Credit Est
Transition	1.800	1.800
2012	1.032	1.032
2013	3.170	2.848
2014	0.400	-
2015	2.120	-
2016	1.310	-
2017	-	-
2017	0.300	-
2018	0.300	-
2018	1.800	-
2019	1.100	-
2020	0.900	-
2020	0.500	-
Future	-	-
2019 Total	9.832	5.680
2020 Total	10.132	-



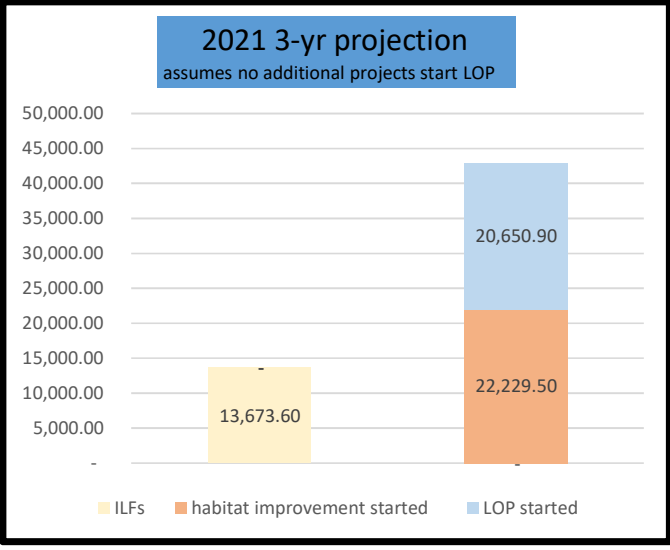
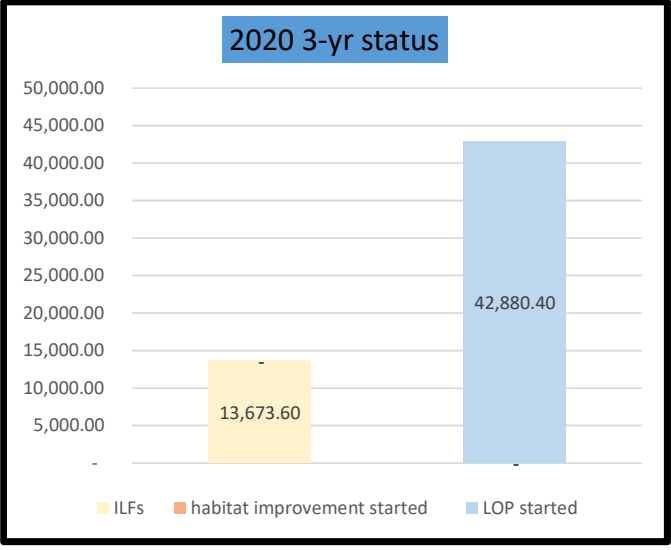
Project	Baseline Info						Milestone Dates										NOTE
	Begin Construct Year	Status	Site Protection Type	County	Credit Est	USACE LRL#/LRN#/MVM#	IRT Design Review Date	JD Site Visit	Submit Draft MP	401 Application Date	401 FP Permit Received	401 WQC Permit Received	404 Application Date	404 Permit Received	Begin Construct	Initial Physical and Biological Improvement	
Red Oak A, B, D	2021	Pre-Permit	deed restrictions	Owen	22135	LRL-2018-00770	3/15/2021	4/15/2021	Spring 2021	Spring 2021	Spring 2021	Summer 2021	Summer 2021	Fall 2021	Fall 2021	2021	
Minors Creek 2	2022	Pre-Permit	deed restrictions	Owen	653	LRL-2019-01049	Summer 2021	Summer 2021	Summer 2021	Summer 2021	Summer 2021	Fall 2021	Fall 2022	Spring 2022	Fall 2022	2021	
Pond Creek	2022	Pre-Permit	deed restrictions	Owen	5.6 W	LRL-2014-191	Summer 2021	Summer 2021	Summer 2021	Summer 2021	Summer 2021	Fall 2021	Fall 2022	Spring 2022	Fall 2022	2021	

Next project effort to focus on site finding for wetlands and possible full delivery solicitation summer 2021, as described in the past due strategy in Appendix F

STREAM				
ILFs		PROJECTS		
Credit History		Broke Leg Creek	Horse Mill	Slabcamp Branch
Year	Credits Sold	Credit Est	Credit Est	Credit Est
Transition	258.00	258.00		-
2012	838.00	838.00		-
2013	-	-		-
2014	-	-		-
2015	5,464.00	5,464.00		-
2015	1,967.00	1,967.00		-
2016	931.00	931.00		-
2017	1,944.60	1,944.60		-
2017	2,271.00	1,338.40	932.60	-
2018	-	-	-	-
2018	-	-	-	-
2019	-	-	-	-
2020	-	-	-	-
2020	219.00	-	219.00	-
Future		-	8,336.90	20,650.90
2019 Total	9,458.00	12,741.00	9,488.50	20,650.90
2020 Total	13,673.60			

sum of project credits for projects where habitat improvement has started: -

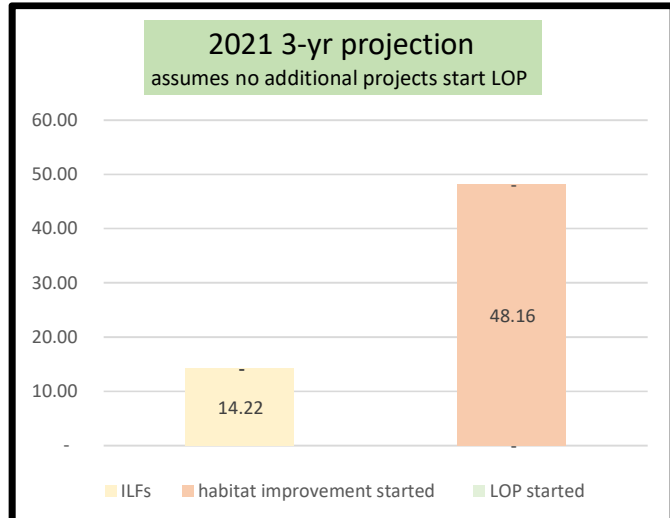
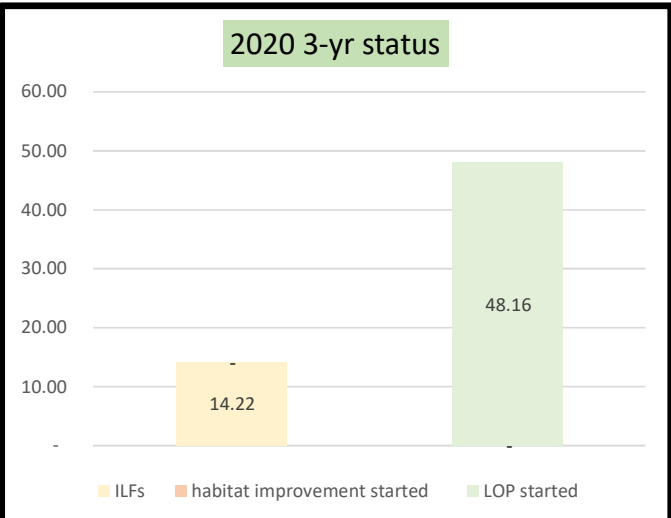
2020 sum of project credits for all projects in the LOP process (CP presented to IRT): 42,880.40



WETLAND				
ILFs		PROJECTS		
Credit History		Horse Mill	MEOW	
Year	Credits Sold	Credit Est	Credit Est	Credit Est
Transition	-	-	-	-
2012	-	-	-	-
2013	-	-	-	-
2014	-	-	-	-
2015	14.220	4.840	9.380	-
2016	-	-	-	-
2017	-	-	-	-
2017	-	-	-	-
2018	-	-	-	-
2018	-	-	-	-
2019	-	-	-	-
2020	-	-	-	-
2020	-	-	-	-
Future		-	33.944	-
2019 Total	14.220	4.840	43.324	-
2020 Total	14.220			

sum of project credits for projects where habitat improvement has started: -

2020 sum of project credits for all projects in the LOP process (CP presented to IRT): 48.16

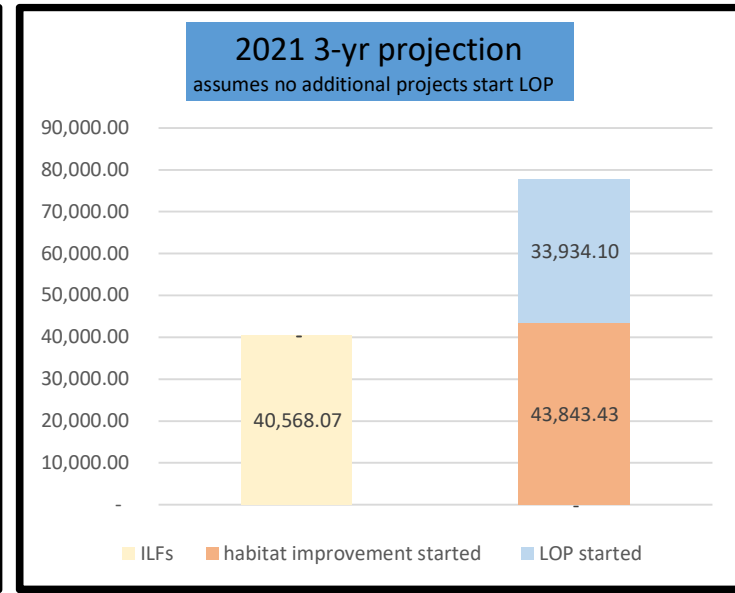
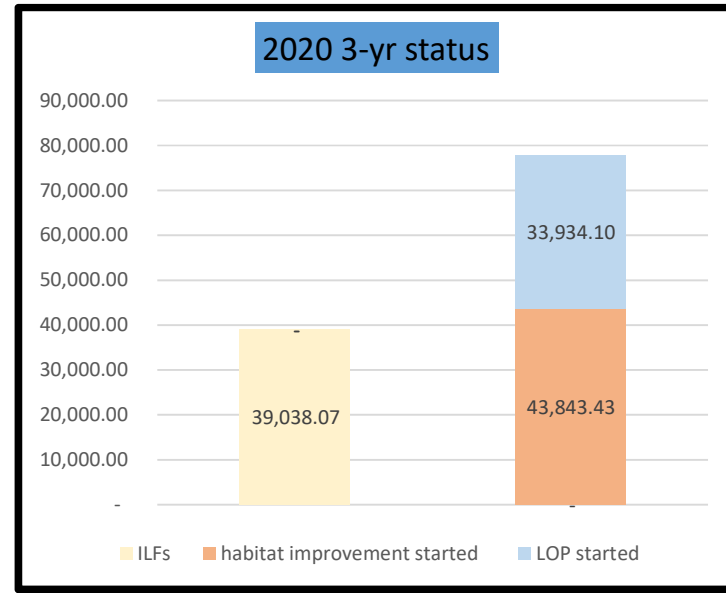


Project	Begin Construct Year	Status	Site Protection Type	Baseline Info				Milestone Dates								Initial Physical and Biological Improvement	NOTE
				County	Credit Est	USACE LRL#/LRN#/MVM#	IRT Design Review Date	JD Site Visit	Submit Draft MP	401 Application Date	401 FP Permit Received	401 WQC Permit Received	404 Application Date	404 Permit Received			
Broke Leg	2021	Pre-Permit	Easement on Private	Morgan	12741	LRL-2016-00371.pgj	10/4/2019	11/24/2020	Winter 2021	Winter 2021	Winter 2021	Spring 2021	Spring 2021	Summer 2021	Fall 2021	2021	
Horse Mill	2022	Pre-Permit	Deed Restriction	Morgan	9488 S, 4.8 W	LRL-2018-00100.pgj	Spring 2021	Spring 2021	Summer 2021	Summer 2021	Summer 2021	Fall 2021	Fall 2022	Spring 2022	Fall 2022	2021	SPI complete
Slabcamp Branch	2022	Pre-Permit	Deed Restriction	Rowan	20650	LRL-2018-00562.pgj	Spring 2021	Spring 2021	Summer 2021	Summer 2021	Summer 2021	Fall 2021	Fall 2022	Spring 2022	Fall 2022	2022	on USFS property
MEOW	2022	Pre-Permit	Deed Restriction	Morgan	43 W	LRL-2018-00682.pgj	Spring 2021	Spring 2021	Summer 2021	Summer 2021	Summer 2021	Fall 2021	Fall 2022	Spring 2022	Fall 2022	2021	

STREAM				
ILFs		PROJECTS		
Credit History		Big Farm	Myers Station	Rock Lick Creek
Year	Credits Sold	Credit Est	Credit Est	Credit Est
Transition	11,419.00	11,419.00	-	-
2012	11,012.00	11,012.00	-	-
2013	-	-	-	-
2014	1,411.00	1,411.00	-	-
2015	10,935.00	6,158.00	4,777.00	-
2015	-	-	-	-
2016	3,399.72	-	3,399.72	-
2017	861.35	-	861.35	-
2017	-	-	-	-
2018	805.00	-	805.00	-
2018	725.00	-	725.00	-
2019	1,008.00	-	1,008.00	-
2020	-	-	-	-
2020	1,188.00	-	1,188.00	-
Future	-	-	1,079.36	33,934.10
2019 Total	38,176.72	30,000.00	13,843.43	33,934.10
2020 Total	39,038.07			

sum of project credits for projects where habitat improvement has started: 43,843.43

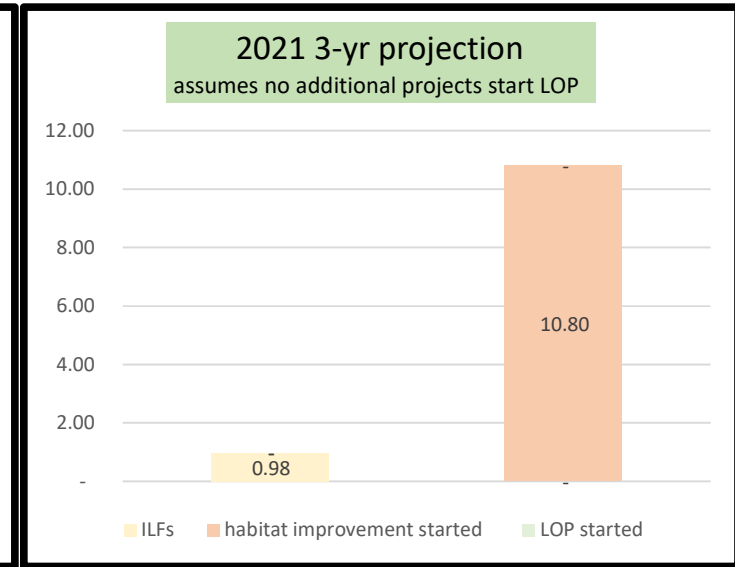
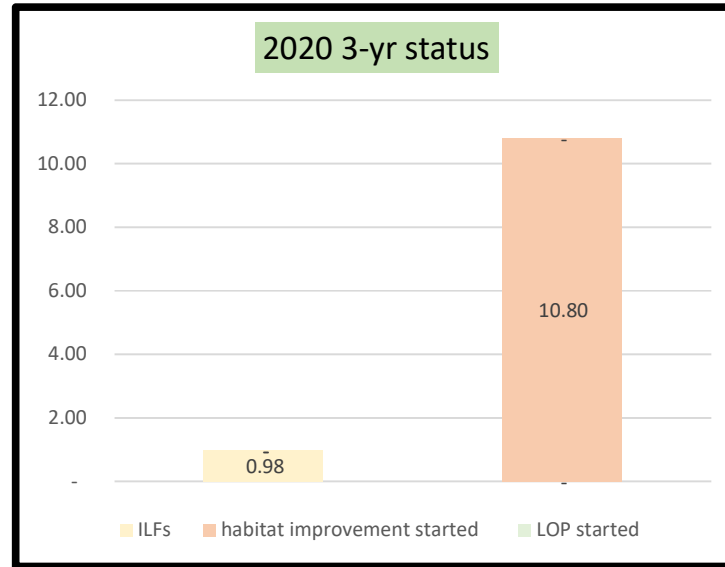
2020 sum of project credits for all projects in the LOP process (CP presented to IRT): 33,934.10



WETLAND		
ILFs		PROJECTS
Credit History		Big Farm
Year	Credits Sold	Credit Est
Transition	0.980	0.980
2012	-	-
2013	-	-
2014	-	-
2015	-	-
2016	-	-
2017	-	-
2017	-	-
2018	-	-
2018	-	-
2019	1.600	1.600
2020	-	-
2020	-	-
Future	-	8.220
2019 Total	0.980	10.800
2020 Total	0.980	

sum of project credits for projects where habitat improvement has started: 10.80

2020 sum of project credits for all projects in the LOP process (CP presented to IRT): -

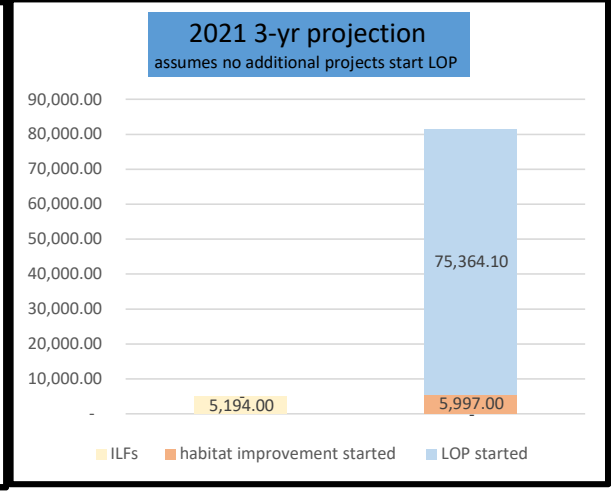
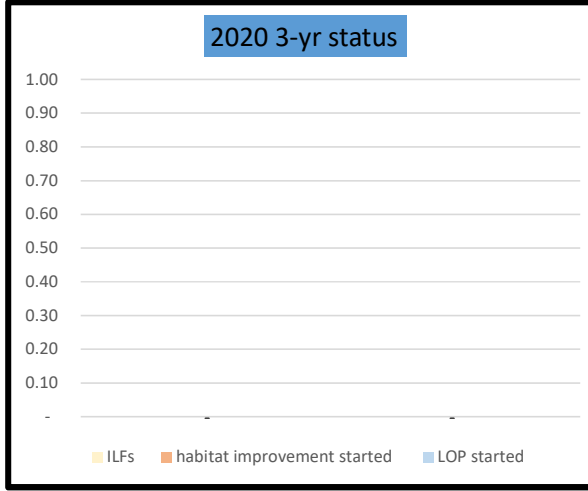


Project	Begin Construct Year	Status	Baseline Info					Milestone Dates									
			Site Protection Type	County	Credit Est	USACE LRL#/LRN#/MVM#	IRT Design Review Date	JD Site Visit	Submit Draft MP	401 Application Date	401 FP Permit Received	401 WQC Permit Received	404 Application Date	404 Permit Received	Begin Construct	Initial Physical and Biological Improvement	NOTE
Big Farm	2019	Construct	Deed Restriction	Bath		LRL-2014-209	NA	NA	NA	8/23/2016	10/6/2016	1/3/2019	1/9/2019	5/30/2019	8/22/2019	2019	
Rock Lick Creek	2022	Pre-Permit	Deed Restriction	Fleming		LRL-2016-00393	Summer 2021	Summer 2021	Summer 2021	Summer 2021	Summer 2021	Fall 2021	Fall 2022	Spring 2022	Fall 2022	2022	

STREAM						
ILFs		PROJECTS				
Credit History		Middle Creek 1 (LIM)	Middle Creek 3 (Anderson)	Meadowland FD	Steep Creek (Stites)	Middle Creek 2
Year	Credits Sold	Credit Est	Credit Est	Credit Est	Credit Est	Credit Est
Transition	-	-	-	-	-	-
2012	-	-	-	-	-	-
2013	-	-	-	-	-	-
2014	-	-	-	-	-	-
2015	-	-	-	-	-	-
2015	-	-	-	-	-	-
2016	-	-	-	-	-	-
2017	-	-	-	-	-	-
2017	-	-	-	-	-	-
2018	-	-	-	-	-	-
2018	5,194.00	5,194.00	-	-	-	-
2019	87,682.50	9,091.00	5,997.00	20,337.00	16,821.00	23,921.10
2020	7,123.50	-	-	-	-	-
2020	-	-	-	-	-	-
Future	-	-	-	-	-	-
2019 Total	-	14,285.00	5,997.00	20,337.00	16,821.00	23,921.10
2020 Total	-	-	-	-	-	-

sum of project credits for projects where habitat improvement has started: -

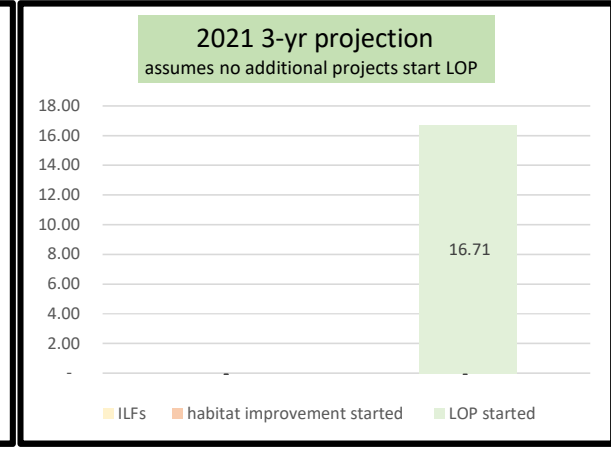
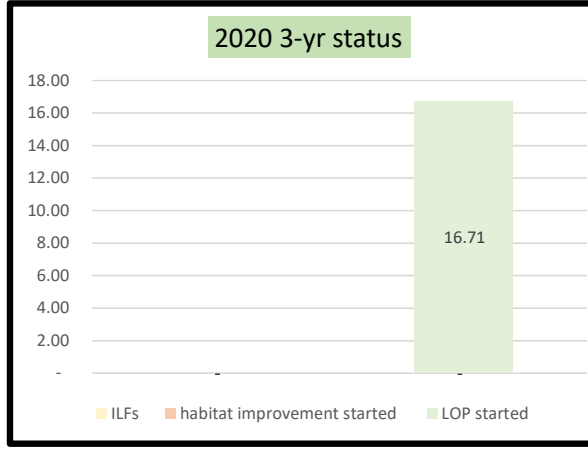
2020 sum of project credits for all projects in the LOP process (CP presented to IRT): 81,361.10



WETLAND			
ILFs		PROJECTS	
Credit History		Middle Creek 2	St. Anne
Year	Credits Sold	Credit Est	Credit Est
Transition	-	-	-
2012	-	-	-
2013	-	-	-
2014	-	-	-
2015	-	-	-
2016	-	-	-
2017	-	-	-
2017	-	-	-
2018	-	-	-
2018	-	-	-
2019	30.700	7.957	8.754
2020	0.400	-	-
2020	1.900	-	-
Future	-	-	-
2019 Total	-	7.957	8.754
2020 Total	-	-	-

sum of project credits for projects where habitat improvement has started: -

2020 sum of project credits for all projects in the LOP process (CP presented to IRT): 16.71



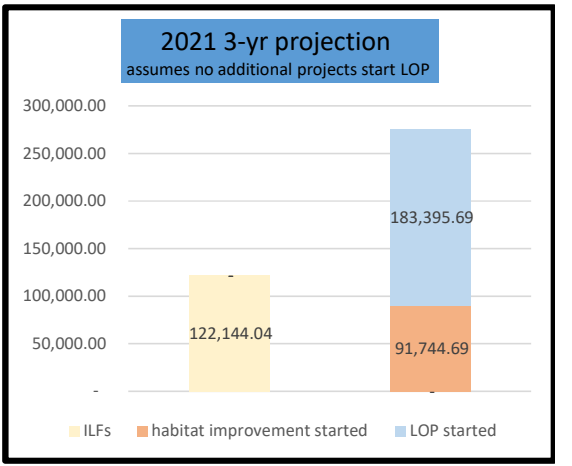
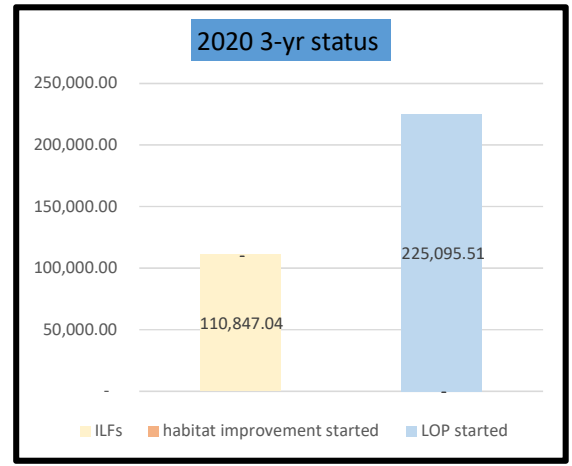
Project	Baseline Info						Milestone Dates										
	Begin Construct Year	Status	Site Protection Type	County	Credit Est	USACE LRL#/LRN#/MVM#	IRT Design Review Date	JD Site Visit	Submit Draft MP	401 Application Date	401 FP Permit Received	401 WQC Permit Received	404 Application Date	404 Permit Received	Begin Construct	Initial Physical and Biological Improvement	NOTE
Meadowland FD	2021	Pre-Permit	3rd Party Easement	Boone	20337	LRL-2020-00184	2/2/2021	2/5/2021	Spring 2021	Spring 2021	Spring 2021	Summer 2021	Summer 2021	Fall 2021	Fall 2021	2021	Full Delivery
Middle Creek 1	2022	Pre-Permit	deed restrictions	Boone	14285	LRL-2019-161	Spring 2021	Spring 2021	Summer 2021	Summer 2021	Summer 2021	Fall 2021	Fall 2022	Spring 2022	Fall 2022	2021	SPI complete
Middle Creek 2	2022	Pre-Permit	Easement on Private	Boone	23921 S, 7.9 W	LRL-2019-01052	Spring 2021	Spring 2021	Summer 2021	Summer 2021	Summer 2021	Fall 2021	Fall 2022	Spring 2022	Fall 2022	2021	
Middle Creek 3	2022	Pre-Permit	deed restrictions	Boone	5997	LRL-2019-00590	Spring 2021	Spring 2021	Summer 2021	Summer 2021	Summer 2021	Fall 2021	Fall 2022	Spring 2022	Fall 2022	2021	SPI complete
Steep Creek	2023	Phase A	Easement on Private	Boone	16821	LRL-2020-00187	tba	tba	tba	tba	tba	tba	tba	tba	tba	2022	
St. Anne	tba	Phase A	Easement on Private	Campbell	8.7 W	LRL-2020-00186	tba	tba	tba	tba	tba	tba	tba	tba	tba	tba	

There are SEVERAL more project sites in development in the Northern Kentucky Service Area. Those listed herein more than address the next credit obligation due in 2021.

STREAM PROJECTS									
ILFs		Stillwell	Otter	Big Lick	Wolf Run	Dodge Gap	Rolling Fork FP	Rolling Fork River	Mill Creek
Year	Credits Sold	Credit Est	Credit Est	Credit Est	Credit Est	Credit Est	Credit Est	Credit Est	Credit Est
Transition	3,883.00	3,883.00	-	-	-	-	-	-	-
2012	1,338.15	1,338.15	-	-	-	-	-	-	-
2013	4,928.00	4,928.00	-	-	-	-	-	-	-
2014	5,607.09	5,607.09	-	-	-	-	-	-	-
2015	7,968.80	7,968.80	-	-	-	-	-	-	-
2016	3,968.00	3,968.00	-	-	-	-	-	-	-
2017	-	-	-	-	-	-	-	-	-
2017	83,154.00	40,899.45	17,313.00	23,152.20	1,789.35	-	-	-	-
2018	72.00	-	-	-	72.00	-	-	-	-
2018	11,225.00	-	-	-	11,225.00	-	-	-	-
2019	231.00	-	-	-	231.00	-	-	-	-
2020	90.00	-	-	-	90.00	-	-	-	-
2020	7,102.00	-	-	-	1,270.65	4,909.00	922.35	-	-
Future	-	-	-	-	-	-	3,877.47	21,900.50	69,750.50
2019 Total	27,693.04	68,592.49	17,313.00	23,152.20	14,678.00	4,909.00	4,799.82	21,900.50	69,750.50
2020 Total	110,847.04								

sum of project credits for projects where habitat improvement has started: -

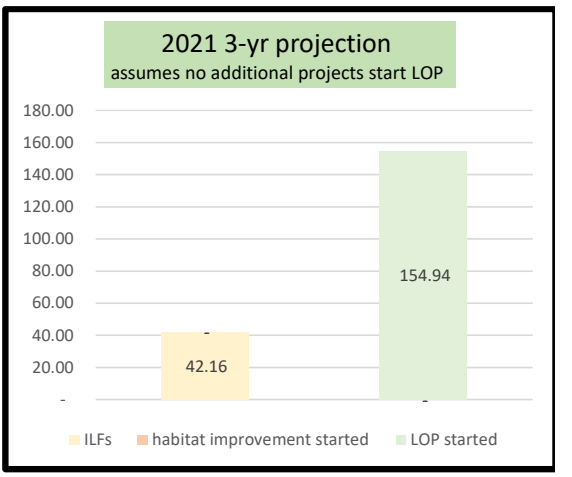
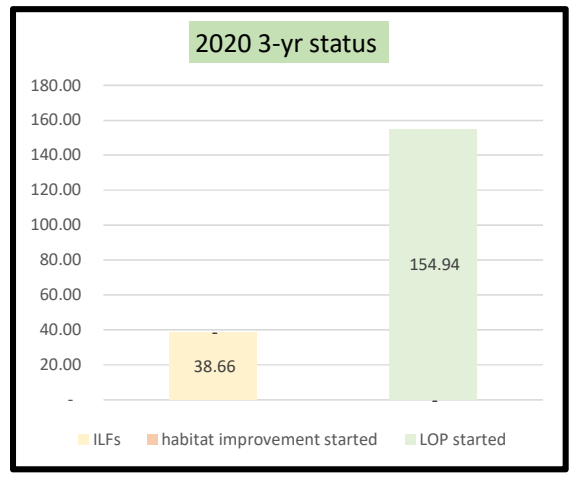
2020 sum of project credits for all projects in the LOP process (CP presented to IRT): 225,095.51



WETLAND PROJECTS					
ILFs		Otter	Rolling Fork FP	Mill Creek	Floyds Fork
Year	Credits Sold	Credit Est	Credit Est	Credit Est	Credit Est
Transition	2.540	2.540	-	-	-
2012	-	-	-	-	-
2013	1.900	1.696	0.204	-	-
2014	-	-	-	-	-
2015	0.723	-	0.723	-	-
2016	16.300	-	16.300	-	-
2017	2.800	-	2.800	-	-
2017	14.400	-	14.400	-	-
2018	1.400	-	1.400	-	-
2018	2.100	-	2.100	-	-
2019	3.900	-	3.900	-	-
2020	-	-	-	-	-
2020	0.400	-	0.400	-	-
Future	-	-	24.273	79.310	4.890
2019 Total	21.463	4.236	66.500	79.310	4.890
2020 Total	38.663				

sum of project credits for projects where habitat improvement has started: -

2020 sum of project credits for all projects in the LOP process (CP presented to IRT): 154.94



Project	Begin Construct Year	Status	Baseline Info				Milestone Dates										NOTE
			Site Protection Type	County	Credit Est	USACE LRL#/LRN#/MVM#	IRT Design Review Date	JD Site Visit	Submit Draft MP	401 Application Date	401 FP Permit Received	401 WQC Permit Received	404 Application Date	404 Permit Received	Begin Construct	Initial Physical and Biological Improvement	
Harrison Fork*	2021	Permit	Easement	Nelson	NA	LRL-2012-274	NA	NA	NA	11/10/2016	11/29/2017	6/27/2019	Winter 2021	Spring 2021	Fall 2021	2021	Approved under pre-2012 MOA
Big Lick Hollow FD	2021	Permit	3rd Party Easement	Nelson	23152	LRL-2018-00383	2/6/2020	2/6/2020	NA	8/25/2020	Winter 2021	Spring 2021	Spring 2021	Summer 2021	Fall 2021	2021	SPI complete
Stillwell Branch	2021	Pre-Permit	Deed Restriction	Larue	68592	LRL-2017-00906	2/4/2020	12/1/2020	Winter 2021	Winter 2021	Winter 2021	Spring 2021	Spring 2021	Summer 2021	Fall 2021	2021	
Otter Creek	2022	Pre-Permit	Deed Restriction	Meade	17313 S, 4.2 W	LRL-2013-425	NA	NA	Summer 2021	Summer 2021	Summer 2021	Fall 2021	Fall 2022	Spring 2022	Fall 2022	2022	
Wolf Run	2022	Pre-Permit	Easement	Jefferson	14678	LRL-2014-60	Summer 2021	Summer 2021	Summer 2021	Summer 2021	Summer 2021	Fall 2021	Fall 2022	Spring 2022	Fall 2022	2022	
Dodge Gap	2023	Phase A	Easement	Jefferson	4909	LRL-2018-00112	tba	tba	tba	tba	tba	tba	tba	tba	tba	2022	
Rolling Fork River	2023	Phase A	Deed Restriction	Larue	21900	LRL-2020-00631	tba	tba	tba	tba	tba	tba	tba	tba	tba	tba	Same property as Stillwell
Rolling Fork FP	2023	Phase A	Deed Restriction	Larue	4799 S, 66.5 W	LRL-2020-00630	2021	2021	2021	2021	tba	tba	tba	tba	2022	2021	Same property as Stillwell

2021 focus on Stillwell, Big Lick, Wolf Run, and Rolling Fk FP will cover 91% of stream and 157% of wetland obligations due at end of 2021.