



# Northern Kentucky Stream and Wetland Restoration Program

## 2022 Annual Report

Prepared  
January 2023

### **Background / Purpose**

The Northern Kentucky Stream and Wetland Restoration Program (NKSWRP) is an in-lieu-fee program providing compensatory mitigation for the loss of stream and wetland resources due to land development in northern Kentucky. The program was established in 1999, and operates under an Agreement among the Louisville District of the U.S. Army Corps of Engineers (Corps), the Northern Kentucky University Center for Environmental Restoration (CER), and the Northern Kentucky University Research Foundation (NKURF). The program is informally known as the NKU Stream Restoration Program.

Funding for the program is generated from the sale of mitigation credits to entities that impact (fill) streams or wetlands for land development under permit from the Corps. NKURF receives in-lieu-fee (ILF) payments from permittees, and distributes funds to the CER to operate the program and implement mitigation projects. The CER identifies stream and wetland restoration and preservation opportunities, then undertakes projects to protect, enhance, restore, and monitor projects. Project sites, plans, and compliance reports are subject to approval by the Corps, in consultation with the Interagency Review Team (IRT).

The Compensation Planning Framework, which describes how the CER selects and prioritizes mitigation projects, may be viewed at <https://inside.nku.edu/environmentalrestoration.html>.

In accordance with the federal rule entitled Compensatory Mitigation for Losses of Aquatic Resources (April 2008), the CER, NKURF, and the Corps executed a new program Agreement to replace the original Agreement (1999). Mitigation implemented under the original Agreement is referred to as Phase 1; no additional impacts are being mitigated through this program. Mitigation implemented after the effective date of the new Agreement (April 2012) is referred to as Phase 2.

A key component of CER’s mission is to train and employ NKU student interns in the field of environmental restoration. From program inception in 1999 through June 2022 (end of Fiscal Year 2022), a total of 186 NKU student interns have been employed by the program for a total of over 113,000 hours. Additionally, from May 2018 through February 2022, CER contracted and worked closely with a local non-profit organization to train and employ individuals in drug addiction recovery to undertake restoration projects. This program trained and employed 15 individuals for 13,000 hours, and provided social services to aid their transition back into society.

### **Record of ILF Payments**

A record of ILF payments is provided in Table 1 (Phase 1) and Table 2 (Phase 2). One payment collected from Kentucky Utilities (KU) under the Phase 1 program is managed and accounted separately due to its unusually large scale. Additionally, one Phase 1 payment was a pass-through to USFWS and another was refunded. Lastly, Phase 1 funds not obligated to projects at the time of Phase 2 initiation were transferred to the Phase 2 Program. Based upon these accounting adjustments, total adjusted ILF deposits to each program through December 2022 are as follows:

<i>Program Phase</i>	<i>Number of ILF Mitigated Impact Sites</i>	<i>Adjusted ILF Payments</i>
Phase 1 (excluding KU)	56	\$12,976,207
Kentucky Utilities	1	\$13,290,792
Phase 2	40	\$20,655,655
Total	97	\$46,922,654

Figure 1 illustrates the locations of the land development projects (impact sites) for which ILF payments were received through December 2022.

## Phase 2 Debit/Credit Ledger

Table 2 provides the debit/credit ledger for the Phase 2 program, which documents Phase 2 ILF deposits and debits from the program’s Advance Credits. Approximately 52,000 stream credits out of 60,000 Advance Credits (streams) have been sold through December 2022 (87%). A total of 5,523 stream mitigation credits were sold in 2022.

No wetlands credits have been sold from the ten Wetland Advance Credits available in the Phase 2 Program.

NKSWRP has temporarily suspended mitigation credit sales until credit pricing can be adjusted for recent inflation of land, equipment, labor and other project expenses.

## Summary of Mitigation Projects

Figure 2 illustrates the locations of Corps/IRT-approved stream and wetland mitigation projects for Phase 1, KU, and Phase 2.

Tables 3 and 4 provide summary information for these mitigation projects including project name, location, completion date or project status, landowner, conservation area acreage, total stream length, stream mitigation credits, wetlands acreage and credits, and project costs.

Referring to Tables 3 and 4, a summary of key mitigation program metrics is as follows:

<i>Program Phase</i>	<i>No. of Projects</i>	<i>Total Newly Conserved Acres*</i>	<i>Total Project Stream Miles</i>	<i>Average \$/AMU **</i>
Phase 1 (excluding KU)	20	1,242	31	n/a
Kentucky Utilities	5	2,042	33	\$257
Phase 2	5	1,121	20	\$305
Total	30	4,405	84	n/a

*\*Acreage excludes land permanently protected prior to NKSWRP’s mitigation project.*

*\*\* Adjusted Mitigation Unit (AMU) is a unit of mitigation credit. Average \$/AMU based upon full-cost accounting project budgets (project, land, administration, site protection, etc.) divided by estimated projects credit generation.*

Relative to the Phase 2 program, the new Agreement requires mitigation projects to produce enough credits to meet or exceed those sold. Approved Phase 2 projects are anticipated to generate about 45,000 credits (Table 4) compared to advance credit sales of about 52,000 credits through December 2022 (Table 2). Therefore, one or more new projects are required to compensate for about 7,000 credits sold in excess of estimated credit generation from currently approved Phase 2 projects.

### **Record of Approved Mitigation Projects Under 2012 Agreement**

In accordance with Appendix B of the new Agreement, projects that have completed the permitting process after the effective date of the new Agreement are documented in the format provided in Table 5. Note that the first four projects listed in Table 5 are Phase 1 projects (Table 3) permitted after the effective date of the new Agreement, and are thus recorded in this table.

### **Mitigation Timeline**

All 20 Phase 1 mitigation projects (Table 3) were constructed as of November 2015, and completed the five-year maintenance and monitoring phase as of December 2020, having achieved project performance/success criteria.

All or most of the planned restoration activities have been completed at the five KU mitigation projects (Table 4). The KU Kingsolver Project was land acquisition and preservation of high-quality streams and is therefore complete. Stephens Creek and St Anne Wetland restoration projects were fully completed in 2019, and Year 3 of Maintenance and Monitoring was completed in 2022. The final stages of high-priority restoration at Big Bone Phase 3 and Sleepy Hollow are currently underway. As of November 2022, all funds within the KU Mitigation Project Account were expended. Anticipating this, the NKSWRP video-conferenced with the Corps on 15 April 2022, apprised them of the situation and provided a conceptual plan to close out the projects using KU Reserve funds, prioritizing completion of all high priority stream restoration and control of invasive species, over quantitative monitoring and formal reporting. An updated version of this status report and conceptual plan was provided to KDOW in early January 2023. The KU Reserve funds, deposited in the Program Contingency Account at the time of receipt of the in-lieu fee payment, amounted to \$665,000. As instructed by the Corps during the video-conference, NKSWRP will request modification of the project mitigation plans for the KU projects requiring changes to performance standards, monitoring, and/or reporting due to funding limitations, namely St Anne Wetland, Big Bone Ph 3, and/or Sleepy Hollow. Additionally, NKSWRP will re-evaluate

un-restored, lower-priority stream restoration opportunities at Big Bone Ph 3 and Sleepy Hollow, and if confirmed to be beneficial and cost-effective, will propose to the Corps to complete these stream reaches as supplemental or advance mitigation using Program Contingency Account funds, or as Phase 2 projects using Phase 2 Mitigation Project Account funds.

Relative to Phase 2 mitigation, the Agreement (Section III.H.) stipulates physical/ecological improvements should begin by the end of the third full growing season after credit sales, if sufficient funds are available. For simplicity, credit sales (Table 2) are deemed to have occurred on December 31 of the year of sale. The following is a summary of physical restoration initiation demonstrating how timeline requirements have been met:

<i>Year</i>	<i>Credits Sold in Given Year</i>	<i>Cumulative Credits Due to be Initiated by October</i>	<i>Cumulative Credits Initiated</i>
2012	2,298	0	0
2013	6,614	0	0
2014	6,083	0	0
2015	4,821	2,298	34,821
2016	7,893	8,912	34,821
2017	1,844	14,995	34,821
2018	3,713	19,816	34,821
2019	681	27,709	34,821
2020	3,527	29,553	34,821
2021	9,402	33,266	40,835
2022	5,523	33,947	45,660
2023	TBD	37,474	TBD
2024	TBD	46,876	TBD
2025	TBD	52,339	TBD

Discussion of Cumulative Credits Initiated: Physical/ecological restoration was initiated at three project sites in 2015 for a total of 34,821 initiated credits as follows: At Darlington Farm, targeted invasive species within the conservation area were eradicated (3,225 credits initiated). At Sleepy Hollow Tracts 2 & 3, deeply rutted ATV trails were regraded and vegetated to mitigate erosion and stream sedimentation (8,705 credits initiated). At Kingsolver Tracts 1 & 2, approximately 100 tires plus refuse were removed from the riparian area and stream channels (22,891 credits initiated). These initiated credits fulfilled credit delivery timelines through 2022. In 2021, Hartig Park (6,014 credits) was initiated by undertaking pre-permit activities including removal of 75 tires, removal of fill material from trail and road stream crossings, and construction of water bars

and drainage dips to mitigate dirt road erosion and stream sedimentation. In 2022, eradication of invasive shrubs was initiated at Central Park (4,825 credits) in preparation for physical stream restoration to be initiated in 2023.

### **Fund Report**

NKURF prepares an annual Fund Report documenting program receipts and expenses, account balances, and interest income through the end of each fiscal year. The FY 2022 Fund Report is attached to this document and tracks balances in six program accounts as described in the Agreement: Kentucky Utilities Projects, Phase 2 Projects, Program Administration, Site Protection (non-wasting/endowment), Site Protection Income (for conservation easement inspection and protection expenses), and Program Contingency.

### **Audit Report**

The NKU Office of Internal Audit performs an annual audit of the Fund to ensure proper accounting of revenues (ILF deposits and interest), program and project expenses, bank statements, investments, invoices, etc. The FY 2022 Audit Report is attached to this document; no exceptions from generally accepted accounting practices were reported.

### **Credit Pricing**

Under Phase 1 of the program, including Kentucky Utilities, the mitigation fee was determined by the Corps. Under the new Agreement, Phase 2 credit pricing is set by NKSWRP, and is based upon full cost accounting for all program operation and project expenses, including land acquisition and overhead. NKSWRP receives no un-compensated support from NKU or any other organization.

Stream credit price was set at \$506/AMU from January 2020 through December 2022 based upon the estimated costs to complete the Hartig Park mitigation project, the most recent project and considered representative of an additional future project (not yet identified) suitable to fulfill sold credit obligations. The CER is reviewing current project costs and the impacts of recent inflation, and may adjust credit price based upon this review.

Wetlands credits are not currently for sale by the NKSWRP, and no wetland credit price has been established.

## **Financial Assurance**

The federal mitigation rule requires the NKSWRP to provide financial assurance that mitigation projects will be completed (i.e., impacts fully mitigated). The NKSWRP provides financial assurance by maintaining a Program Contingency Fund, funded by a portion of all credit sale revenues (currently 15%). As established in the new Agreement, the minimum Program Contingency Fund balance is not less than 15 percent of estimated project costs to complete outstanding Phase 2 mitigation (but not less than \$500,000). Based upon the estimated costs to complete all projects as of December 31, 2022, the calculated minimum Program Contingency Fund balance is approximately \$1.5 million, compared to the actual Program Contingency Fund balance of approximately \$3.2 million. Therefore, the available contingency funds exceed the minimum requirement for financial assurance.

## **Project Long-Term Management**

All mitigation projects are permanently protected by site protection instruments, usually by conservation easement, but in a few cases, by conservation deed restriction. The acreage of land under conservation protection by the NKSWRP is tabulated by project in Tables 3 and 4. Certain project sites were permanently protected by easement or deed restriction prior to the NKSWRP's project, in which case no acreage is indicated.

At least annually, landowners of all conservation easement or deed restricted project sites are contacted, and all conservation properties are visited to ensure compliance with conservation restrictions. The NKSWRP's "Procedures for Annual Conservation Easement Area Inspections" and "Annual Conservation Area and Restoration Project Inspections - Year 2022" are attached to this report. These inspection activities (and enforcement, if necessary) are funded by the interest generated on the non-wasting Site Protection Fund. The Site Protection Fund is funded from 5% of all credit sale revenues in accordance with the Agreement. The balances of the Site Protection Fund and Site Protection Income Fund at the end of FY 2022 are provided in the attached Fund Report.

As illustrated on the attached inspections record, the CER conducts annual site protection inspections at six mitigation project sites. Three Kenton county sites are inspected under contract to CER by the Kenton County Conservation District. Thirteen project sites are conducted by other conservancies to whom the conservation easements have been assigned (The Boone Conservancy, Fort Thomas Forest Conservancy, Sleepy Hollow Conservancy). The assignment of easement also included the transfer of endowment funds apportioned to those properties, and executed

agreements to utilize NKSWRP's Procedures at a minimum, and to preserve the endowment principals as non-wasting accounts. The remaining seven sites are protected by pre-existing instruments and managed by other agencies (Kentucky Fish & Wildlife, Kentucky Heritage Land Conservation Fund, and The Kenton Conservancy).

In 2022, CER engaged in discussions among SD1 and its consultants, condominium association boards, Corps, and KDOW regarding SD1 plans to impact conservation areas at Bentwood and Woodland Hills during sanitary sewer upgrades, primarily impacts to protected riparian habitat. As part of its permitting activity with the Corps and KDOW, SD1 has executed a written agreement with NKURF to undertake replacement plantings, maintenance, and monitoring consistent with current mitigation requirements, to reimburse NKSWRP's legal support consultation costs, and to undertake other mitigation activities such as a native cane salvage and invasive shrub removal.

In addition to site protection inspections, all stream and wetland restoration projects are visually assessed at least annually for continued project success and stability, including closed projects. As illustrated in the attached inspections record, the CER undertakes all these restoration inspections. Minor project maintenance and repairs, such as spot repairs of bank stabilization measures, are commonly required during the five-year maintenance and monitoring phase following physical restoration. Certain projects may also require repairs after close-out (release from monitoring). To date, all project repairs have constituted less than 15 percent of the original project (based upon both restoration budget and restoration stream length) and are therefore considered minor repairs. Any necessary project maintenance or repairs are undertaken by the CER and funded from the Program Contingency Fund. No project repairs were required during Year 2022.

### **Program Adaptive Management**

In 2016, a mitigation Advisory Committee was formed from members of the Boone, Kenton, and Campbell County Judges Executive, local land development and economic development communities, local conservancies and watershed groups, and Sanitation District 1. The KDFWR FILO program began participating in 2018, and mitigation bank representatives participated in 2022. The purpose of the Committee is to discuss the status of and changes to mitigation requirements, and to identify projects that complement the stakeholders' conservation, economic development, and other priorities. The Committee is chaired by the Boone County Judge Executive and continues to meet three or four times per year.



Figure 1

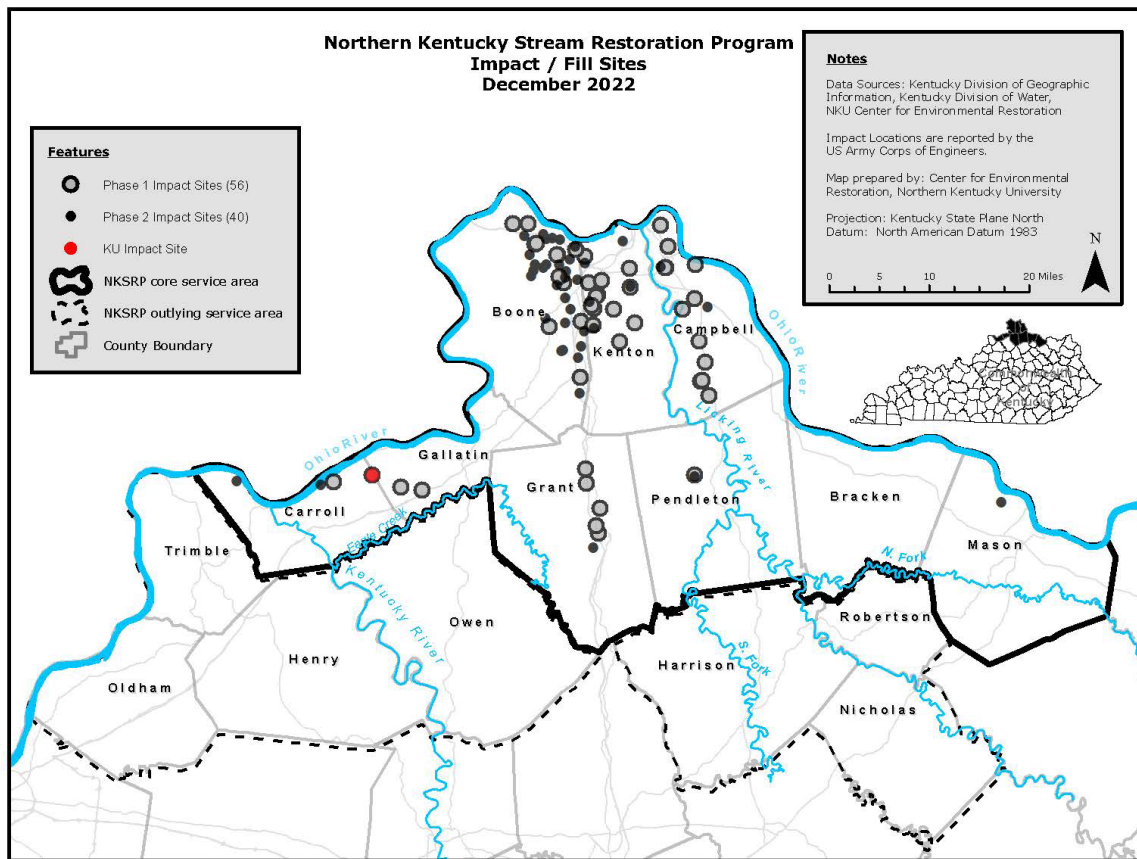


Figure 2

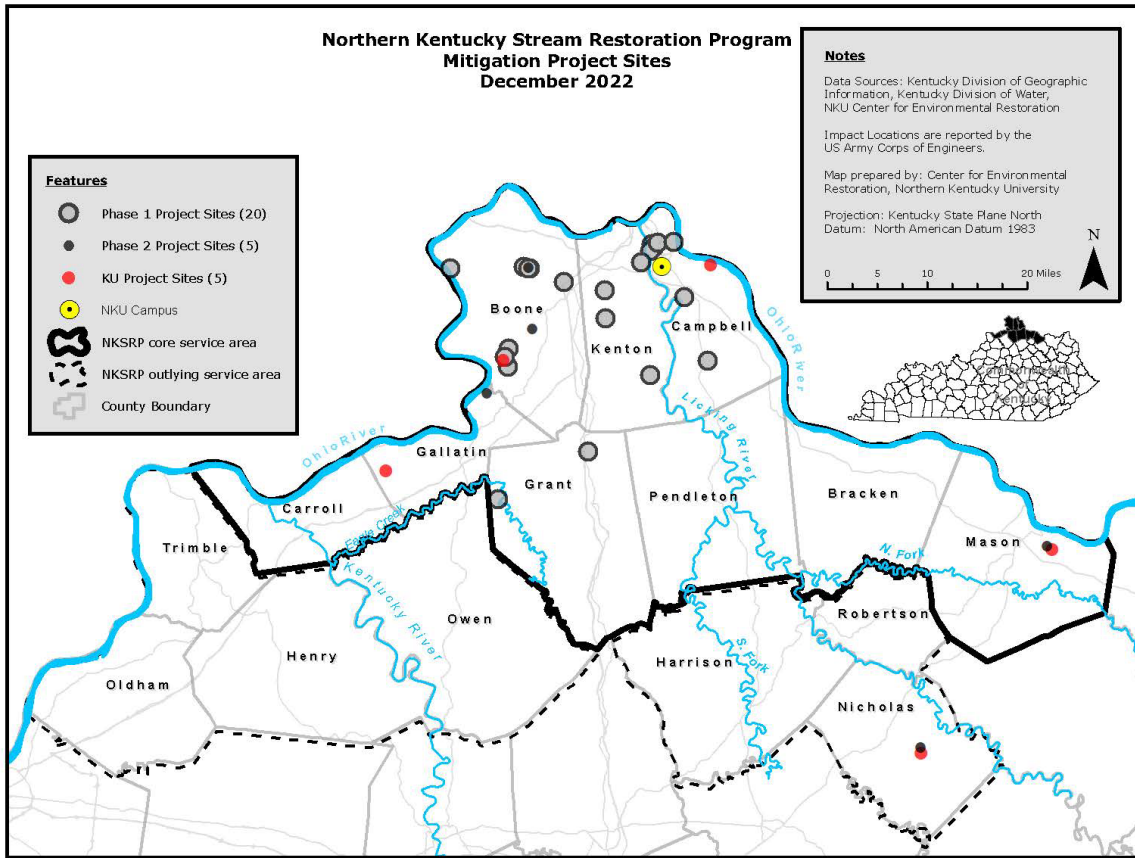


Table 1

Northern Kentucky Stream Restoration Program							
PHASE 1 ILF PAYMENTS							
Permittee	Corps ID	Date Received	Lat	Long	County	Major Watershed	Mitigation Fee \$
Kenton County Airport Board	199900699	9/22/1999	39.0509	-84.6613	Boone	Ohio R	\$ 327,750
Kenton County Airport Board	199900699	3/2/2000	39.0509	-84.6613	Boone	Ohio R	\$ 646,800
Ky Transportation Cabinet	200000780	7/24/2002	38.7084	-84.9095	Gallatin	Kentucky R	\$ 32,000
Ky Transportation Cabinet	200101229	9/19/2002	38.9469	-84.6763	Boone	Ohio R	\$ 211,755
Ky Transportation Cabinet	200101568	10/14/2002	38.6470	-84.5832	Grant	Kentucky R	\$ 22,200
City of Elsmere	200100512	10/14/2002	39.0103	-84.6023	Kenton	Licking R	\$ 35,000
Corporex Parks	200200927	12/10/2002	39.0590	-84.6262	Kenton	Ohio R	\$ 70,000
Ky Transportation Cabinet	200100501	12/13/2002	38.9934	-84.5860	Kenton	Licking R	\$ 99,800
Ky Transportation Cabinet	200200679	12/13/2002	38.6833	-84.5802	Grant	Licking R	\$ 95,200
Ky Transportation Cabinet	200001036	12/13/2002	38.9493	-84.5933	Kenton	Licking R	\$ 95,000
Ky Transportation Cabinet	200200908	1/7/2003	39.0136	-84.5789	Kenton	Ohio R	\$ 175,450
Kenton County Airport Board	200101187	4/11/2003	39.0510	-84.6613	Boone	Ohio R	\$ 3,016,000
FedEx	200300748	1/5/2004	38.9541	-84.6170	Boone	Licking R	\$ 19,000
Ky Transportation Cabinet	n/a	7/28/2004	38.2875	-84.8465	Franklin	Kentucky R	\$ 32,061
Ky Transportation Cabinet	200300653	8/6/2004	38.7127	-84.9487	Gallatin	Ohio R	\$ 626,130
Ky Transportation Cabinet	200300766	12/10/2004	38.8687	-84.3945	Campbell	Licking R	\$ 175,140
LandAmerica (Wal-Mart)	199901671	2/21/2005	39.0105	-84.6493	Boone	Ohio R	\$ 414,750
J. A. Fielden co (Wal-Mart)	200300865	3/15/2005	38.9879	-84.4049	Campbell	Ohio R	\$ 114,000
Kenton County Airport Board	199900699	8/30/2005	39.0509	-84.6613	Boone	Ohio R	\$ 221,700
Ky Transportation Cabinet	200300154	10/31/2005	38.9254	-84.5440	Kenton	Licking R	\$ 997,740
Ky Transportation Cabinet	200401022	11/21/2005	38.6581	-84.5869	Grant	Kentucky R	\$ 194,469
Ky Transportation Cabinet	200401357	11/22/2005	38.9908	-84.5879	Kenton	Licking R	\$ 242,220
Industrial Developments Int'l	200500081	1/18/2006	38.8733	-84.6181	Boone	Ohio R	\$ 506,280
NKU	20060001	9/22/2006	39.0328	-84.4586	Campbell	Licking R	\$ 45,000
Ky Transportation Cabinet	20050111	10/12/2006	39.0314	-84.5261	Kenton	Licking R	\$ 341,670
Overlook-Reece, LLC	LRL-2006-1774	4/16/2007	39.0639	-84.4548	Campbell	Licking R	\$ 53,160
Ky Transportation Cabinet	20061578	10/11/2007	38.7198	-84.6048	Grant	Kentucky R	\$ 2,308,860
Industrial Developments Int'l	LRL-2007-528-ncc	10/11/2007	39.0677	-84.7001	Boone	Ohio R	\$ 23,040
NKU Parking Garage	LRL-2007-609	11/8/2007	39.0326	-84.4607	Campbell	Licking R	\$ 75,840
Terra Firma	LRL-2007-00134-pjl	11/5/2007	39.0661	-84.7029	Boone	Ohio R	\$ 108,000
Ky Transportation Cabinet	LRL-2007-794-jea	1/3/2008	39.0961	-84.7162	Boone	Ohio R	\$ 45,000
Ky Transportation Cabinet	2007-104ncc	1/8/2008	38.7407	-84.6065	Grant	Kentucky R	\$ 105,120
Rumpke of Kentucky, Inc	200600464-pgj	2/27/2008	38.7315	-84.4047	Pendleton	Licking R	\$ 236,400
Kilbane Environmental, Inc.	200101514	4/14/2008	39.1003	-84.4869	Campbell	Licking R	\$ 140,000
Eagle Development, LLC	LRL-2007-1210-the	11/10/2008	38.9729	-84.5922	Kenton	Licking R	\$ 204,600
Trans-Ash	LRL-2006-1762-jea	9/11/2009	39.0373	-84.4041	Campbell	Ohio R	\$ 23,760
Eaton Asphalt and Paving	LRL-2006-1337-mdh	9/11/2009	38.8960	-84.3860	Campbell	Licking R	\$ 63,780
Drees Company	LRL-2007-1153	9/28/2009	39.0961	-84.7443	Boone	Ohio R	\$ 1,623
KY Transportation Cabinet	LRL-2004-01357-pgj	10/5/2009	38.9728	-84.4281	Kenton	Licking R	\$ 162,360
North American Stainless	LRL-2009-858	12/14/2009	38.7191	85.0739	Carroll	Ohio R	\$ 283,600
Sanitation District No 1	LRL-2009-41-let	1/13/2010	38.9721	-84.5560	Kenton	Licking R	\$ 121,500
Boone County Fiscal Court	LRL-2005-597-pjl	3/11/2010	38.9779	-84.5965	Boone	Licking R	\$ 96,480
Maxim Craneworks	LRL-2006-1337-mdh	6/10/2010	38.8714	-84.3956	Campbell	Licking R	\$ 65,100
Potterhill Homes	LRL-2005-930-pgj	7/19/2010	38.9541	-84.5171	Kenton	Licking R	\$ 33,315
Eagle Development	LRL-2007-1210	12/20/2010	38.9729	-84.5922	Kenton	Licking R	\$ 11,000
Boone County Fiscal Court	LRL-2009-805-pjl	12/20/2010	39.0198	-84.6571	Boone	Ohio R	\$ 230,640
Kenton County Airport Board	LRL-2009-1033-let	1/16/2011	39.0269	-84.6543	Boone	Ohio R	\$ 27,720
City of Newport	LRL-2007-778	3/10/2011	39.0946	-84.4684	Campbell	Ohio R	\$ 57,375
Summerlake Development	LRL-2001-100	4/15/2011	38.9269	-84.3919	Campbell	Licking R	\$ 10,000
Summerlake Development	LRL-2001-100	6/6/2011	38.9269	-84.3919	Campbell	Licking R	\$ 10,000
Summerlake Development	LRL-2001-100	9/8/2011	38.9269	-84.3919	Campbell	Licking R	\$ 10,000
Tuscany Development	LRL-2008-1119-let	10/27/2011	39.0055	-84.5243	Kenton	Licking R	\$ 59,280
Summerlake Development	LRL-2001-100	12/2/2011	38.9269	-84.3919	Campbell	Licking R	\$ 10,000
<b>Kentucky Utilities</b>	<b>LRL-2009-358</b>	<b>12/8/2011</b>	<b>38.7297</b>	<b>-85.0028</b>	<b>Gallatin</b>	<b>Ohio R</b>	<b>\$ 13,290,792</b>
Ky Transportation Cabinet	LRL-2003-766	12/19/2011	38.8477	-84.3786	Campbell	Licking R	\$ 1,037,076
Tuscany Development	LRL-2008-1119-let	3/1/2012	39.0055	-84.5243	Kenton	Licking R	\$ 171,840
		Total Phase 1 ILF Payments					\$ 27,834,376
		USFWS Pass Thru			Franklin County Braun's rock cress		\$ (203,674)
		Airport Refund			Walton Park		\$ (155,500)
		Transfer of Unobligated funds to Phase 2 Ledger					\$ (1,208,203)
		Kentucky Utilities Mitigation Separate Accounting					\$ (13,290,792)
		<b>Total Phase 1 Funds Adjusted</b>					<b>\$ 12,976,207</b>



Table 3

Northern Kentucky Stream and Wetland Restoration Program										
PHASE 1 PROJECTS SUMMARY										
<i>Watershed / Project Name</i>	<i>Completion Date</i>	<i>Principal Stream (or tributary to)</i>	<i>River Watershed</i>	<i>Latitude</i>	<i>Longitude</i>	<i>Full Cost Accounting Project Cost* (\$)</i>	<i>Project Stream Length (ft)</i>	<i>Wetland Area (ac)</i>	<i>Add'l Conservation Area (ac)</i>	
<b>Gum Branch / Big Bone Creek Watershed</b>										
1a	Adair WMA	Jun-01	Gum Branch	Ohio R	38.9100	-84.7474	\$476,840	8,150	0.0	WMA
1b	Adair WMA Ph 2	Jun-09	Gum Branch	Ohio R	38.9100	-84.7474	\$645,911	3,660	0.0	WMA
2	Adair / Kruza	May-13	Gum Branch	Ohio R	38.8981	-84.7547	\$687,878	16,971	0.1	215
3a	Big Bone State Park	Apr-05	Big Bone	Ohio R	38.8839	-84.7489	\$1,003,970	21,315	0.0	74
3b	Big Bone Phase 2	May-07	Big Bone	Ohio R	38.8839	-84.7489	\$485,546	4,150	8.5	51
3c	Big Bone Annex	Apr-05	Big Bone	Ohio R	38.8839	-84.7489	\$412,516	1,600	0.0	6.5
<b>Threemile Tributary Watershed</b>										
4a	Bentwood Hills	Aug-03	Threemile	Licking R	39.0523	-84.4851	\$517,602	3,321	0.7	21
4b	Bentwood Ph 2	Jul-11	Threemile	Licking R	39.0523	-84.4851	\$159,064	612	0.0	(above)
5	Woodland Hills	Sep-05	Threemile	Licking R	39.0584	-84.4779	\$378,915	3,198	0.0	10
6	Joe's Creek	Oct-07	Threemile	Licking R	39.0628	-84.4816	\$726,927	1,466	0.2	7
7	Canterbury / KYTC	Mar-15	Threemile	Licking R	39.0676	-84.4678	\$398,399	2,723	0.0	16
<b>Woolper Creek and Gunpowder Creek Watersheds</b>										
8	Boone Woods Park	Nov-10	Allen Fork	Ohio R	39.0269	-84.7081	\$559,152	4,386	0.2	11
9	Burlington Elementary	Aug-06	Allen Fork	Ohio R	39.0295	-84.7195	\$179,885	700	0.3	5
10	Split Rock	Oct-08	Woolper	Ohio R	39.0258	-84.8561	\$1,938,700	15,771	1.0	63
11	Florence Golf Course	Oct-08	Gunpowder	Ohio R	39.0077	-84.6450	\$1,290,146	2,669	0.0	9.5
<b>Licking River Watershed</b>										
12	Hawthorne Crossing	Jul-12	Riffle	Licking R	38.9858	-84.4206	\$199,466	9,635	1.0	KHLCF
13	Lloyd WMA	Nov-15	Grassy	Licking R	38.7619	-84.6004	\$210,766	1,285	0.0	10.6
14	Parkside Preserve	Feb-09	Phillips	Licking R	38.8937	-84.3774	\$79,646	1,580	1.3	9.6
15	Wright Farm	Jul-12	Redmond Br	Licking R	38.8728	-84.4838	\$384,490	7,579	0.0	81
16	Bullock Pen	Nov-13	Bullock Pen	Licking R	38.9949	-84.5685	\$470,203	3,778	0.0	27
17	Latonia Banklick	Jul-15	Banklick	Licking R	39.0361	-84.5240	\$269,661	4,212	1.0	30
18	Wolsing Trails	Mar-08	Banklick	Licking R	38.9548	-84.5677	\$29,239	50	0.0	TKC
<b>Other Watersheds</b>										
19	Reb Stacey	Nov-10	Eagle Creek	Kentucky R	38.6917	-84.7657	\$227,316	40,184	0.0	576
20	Tower Park	Nov-13	UNT of Ohio R	Ohio R	39.0662	-84.4401	\$1,243,965	5,742	0.0	18
<b>TOTAL</b>							\$ 12,976,207	164,737	14.3	1,242

\* - includes selection, design, permitting, construction, maintenance & monitoring, reporting, administration, F&A, and Site Protection endowment.

Table 4

Northern Kentucky Stream and Wetland Restoration Program									
KU & PHASE 2 PROJECTS SUMMARY									
Project Name	Land Owner	Project Status	Project Added Conservation Acres	Stream Feet	Mitigation Plan AMUs (1)	Potential Add'l Project AMU Multiplier (2)	Revised Estimated Project AMUs (1)	Estimated Full-Cost Accting Project Cost (\$M) (3)	Estimated Full-Cost Accting Project \$/AMU (4)
<b>KENTUCKY UTILITIES</b>									
Big Bone Phase 3 ("Piner")	KY Parks	Construction	229	30,325	15,674	n/a	n/a	\$ 4.6	\$ 295
Kingsolver Tract 1 (Preservation)	KDFWR	Preserved	540	33,082	3,925	n/a	n/a	\$ 1.4	\$ 354
Sleepy Hollow Tract 1	SHC/KDFWR	Construction	876	85,695	19,655	n/a	n/a	\$ 3.5	\$ 177
Stephens Creek	KDFWR	Completed Spr 2019	398	24,554	11,072	n/a	n/a	\$ 3.4	\$ 309
<b>TOTAL KU STREAM MITIGATION</b>			<b>2,042</b>	<b>173,656</b>	<b>50,326</b>			<b>\$ 12.9</b>	<b>\$ 257</b>
St Anne WETLANDS	CCCD	Completed Fall 2019	-	n/a	10			\$ 0.4	\$ 40,375
<b>PHASE 2</b>									
Central Park	BC Parks	Initiated 2022	18	6,000	4,386	0.1	4,825	\$ 1.8	\$ 381
Darlington Farm Condominiums	DF HOA	Completed Spr 2019	4	1,345	3,225	0	3,225	\$ 0.3	\$ 81
Hartig Park	GC Parks	Draft MP; Init'd 2021	71	16,478	6,014	0	6,014	\$ 3.0	\$ 493
Kingsolver Tract 2 (Preservation)	KDFWR	Preserved	405	21,265	1,849	0.2	2,219	\$ 0.9	\$ 400
Kingsolver Tracts 1 & 2 (Restoration)	KDFWR	Construction	-	15,349	17,227	0.2	20,672	\$ 5.4	\$ 259
Sleepy Hollow Tracts 2 & 3	KDFWR	Construction	623	46,641	7,254	0.2	8,705	\$ 2.6	\$ 298
<b>TOTAL PHASE 2 STREAM MITIGATION</b>			<b>1,121</b>	<b>107,078</b>	<b>39,955</b>		<b>45,660</b>	<b>\$ 13.9</b>	<b>\$ 305</b>
Notes:									
(1) - Final KU projects scope & credits anticipated to be less than originally planned due to funding limits, i.e., limited to KU ILF payment, unless non-KU Reserves are used.									
(2) - Subject to Corps approval, additional Ph 2 AMUs for Watershed Protection (X 0.1) and Publically-Accessible Lands plus Education/Outreach (X 0.1).									
(3) - Includes project, land acquisition, maintenance/monitoring/reporting, and overhead (F&A, Program Admin, Program Contingency, and Site Protection Endowment) costs.									
(4) - KU \$/AMU likely to increase due to lower than originally estimated credits or higher than originally budgetted costs due to KU funding limitations.									

Table 5

Approved Projects to Date (Through Permitting) Under 2012 Agreement

PROJECT	County	Service Area	Instr. Mod. No.	Corps ID No.	Corps Approval Date	KDOW 401 ID No.	KDOW Approval Date
ILF-NKU Bullock Pen Tributary Preserve Stream and Riparian Buffer Restoration Project (MOA)	Kenton	Core Service Area	4	LRL-2012-202	May 24, 2013	WQC # 2012-050-1	February 13, 2013
ILF-NKU Lloyd WMA Stream and Wetland Restoration Project (MOA)	Grant	Core Service Area	5	LRL-2012-200	February 12, 2014	WQC # 2013-052-7	October 24, 2013
ILF-NKU Modification of Appendix A	NA	Core Service Area	6	LRL-2010-326	November 7, 2014	NA	NA
ILF-NKU Latonia-Banklick Restoration Project (MOA)	Kenton	Core Service Area	7	LRL-2012-201	November 7, 2014	WQC # 2014-036-1	July 7, 2014
ILF-NKU Canterbury Stream Restoration Project	Campbell	Core Service Area	8	LRL-2012-203	November 7, 2014	WQC # 2014-035-1	July 17, 2014
ILF-NKU Stephens Creek Stream and Wetland Restoration Project	Gallatin	Core Service Area	9	LRL-2013-83	December 4, 2015	WQC # 2015-050-1	August 7, 2015
ILF-NKU Big Bone Phase III Stream and Wetland Restoration Project	Boone	Core Service Area	10	LRL-2013-172	July 8, 2016	WQC # 2016-009-1 (AI No. 15633)	February 8, 2016
ILF-NKU Darlington Farms Stream Restoration Project	Boone	Core Service Area	11	LRL-2013-86	August 14, 2018	WQC # 2018-019-1 (AI No. 134591)	March 21, 2018
ILF-NKU Kingsolver Stream Restoration Project Tracts 1 & 2 (ILF-I)	Nicholas	Expanded	12	LRL-2013-84 LRL-2015-127	May 19, 2020	WQC # 2018-031-1R2 (AI No. 125308)	March 30, 2020
ILF-NKU Modification (streamlined review)	NA	Core Service Area	13	LRL-2010-326	October 18, 2018	NA	NA
ILF-NKU-Sleepy Hollow Restoration Project Tracts 1-3(ILF-I)	Mason	Expanded Service Area	14	LRL-2013-85, LRL-2014-867, LRL-2016-51	November 30, 2020	WQC # 2018-091-1RM (AI No. 125309)	July 29, 2020
ILF-NKU St. Anne's Wetland Stream Restoration Project (ILR-I)	Boone	Core Service Area	15	LRL-2014-859	November 9, 2020	NA	NA
ILF-NKU-Central Park Steam and Wetland Restoration Project (ILF-I)	Boone	Core Service Area	16	LRL-2012-443	January 28, 2021	WQC# 2019-032-1M (AI No. 135099)	August 18, 2020

## Fund Report

### Stream and Wetland Restoration Fund

for the year ended June 30, 2022

	<u>2022</u>
<b>RECEIPTS</b>	
In-lieu fees - NKURF Management Fees Fund	\$ 280,435.32
In-lieu fees - Phase 2 Projects Fund	2,523,917.88
In-lieu fees - Program Admin Fund	934,784.40
In-lieu fees - Program Contingency Fund	701,088.30
In-lieu fees - Site Protection Fund	233,696.10
Interest income - Kentucky Utilities Fund	420.00
Interest income - Program Admin Fund	2,983.39
Interest income - Program Contingency Fund	28,267.21
Interest income - Site Protection Fund	1,688.17
	<u>4,707,280.77</u>
<b>TOTAL RECEIPTS</b>	<b>4,707,280.77</b>
<b>EXPENSES</b>	
Project expenses	928,863.92
Land purchase expenses	-
Program admin expenses	256,602.07
Site protection expenses	1,590.00
NKURF management fees	280,435.32
	<u>1,467,491.31</u>
<b>TOTAL EXPENSES</b>	<b>1,467,491.31</b>
<b>NET EXCESS (DEFICIT) OF RECEIPTS OVER EXPENSES</b>	<b>3,239,789.46</b>
<b>BEGINNING BALANCE AS OF 07/01/2021</b>	<u>12,198,828.36</u>
<b>ENDING BALANCE AS OF 06/30/2022</b>	<u>\$ 15,438,617.82</u>
<b>BALANCE PER FUND AS OF 06/30/22</b>	
Program Admin Fund	\$ 1,369,890.28
Phase 2 Projects Fund	9,824,952.55
Program Contingency Fund	3,351,139.78
Site Protection Fund	789,378.83
Site Protection Income Fund	2,363.26
Kentucky Utilities Fund	100,893.12
	<u>15,438,617.82</u>
<b>ENDING BALANCE AS OF 06/30/2022</b>	<u>\$ 15,438,617.82</u>



## Audit Report



To: Barb Smith  
From: Kristin Horine, Larry Meyer  
Date: 1/26/23  
Re: Stream and Wetland Restoration Fund FYE 6/30/22 Review Procedures

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Internal Audit (IA) completed its review of the Stream and Wetland Restoration Fund. The following procedures were performed for this review.

### Statement of Revenues and Expenses and Changes in Fund Balance

1. IA footed revenues, expenses, and fund balances.
2. IA traced beginning fund balance to prior year work papers.
3. IA traced revenues and expenses to the trial balance from SAP.
4. IA traced individual fund balances to individual trial balances from SAP.

### Statement of Financial Position

1. IA obtained bank reconciliations and approvals as of 6/30/22 to document cash control amount.
2. IA reviewed the June 2022 invoice from Center for Environmental Restoration, which accounts for the entire amount of A/P as of 6/30/22.

### Revenue Testing

1. IA obtained a detailed listing of in-lieu fees from SAP and tied the total to the trial balance. IA selected 3 of 4 transactions (75% of transactions, 68% of in-lieu fee revenue) for testing. IA agreed amount paid by permittees to approved amount negotiated by the Army Corps of Engineers and receipts.
2. IA obtained a detailed listing of interest income from SAP and tied the total to the trial balance. IA reviewed total interest for reasonableness. IA tested 91% of the interest revenue, agreeing amounts to interest calculations.

### Expense Testing

1. IA obtained a detailed listing of project expense and project administration expenses from SAP and tied the total to the trial balance. IA selected 15 of 49 transactions (31% of transactions, 57% of project expense) for testing. For each transaction, IA agreed to supporting documentation, vouched invoices to be for project expense incurred within FY22, and agreed amount paid to interdepartmental billing.
2. IA obtained project summaries for four different projects from the Center for Environmental Restoration invoices. IA reviewed a selection of supporting invoices for reasonableness, accuracy and timing. No issues were noted. IA reviewed the billable hours and rates for reasonableness. No issues were noted.
3. IA recalculated the NKURF fees for the year based on a rate of 6% of paid Phase 2 in-lieu fees and compared to actual NKURF fees for reasonableness.
4. There were no land and right of way expenses to test for FY22.

## NKU Stream Restoration Program

### Procedures for Annual Conservation Area Inspection & Restoration Project Assessment

Visit all completed mitigation projects (active and closed) ANNUALLY to ensure the terms of conservation easements or deed restrictions are being met by the landowners, and to assess the continued success of restoration. For projects with multiple/adjoining easements, conduct inspections and reporting simultaneously.

#### **Conservation Area Inspections:**

1. Prior to visit, review stamped copy of the conservation easement along with Conservation Area Features Map (paper) and online/ESRI boundary map with post/placard locations (iPad). Review prior-year inspection report (email to landowner saved in network project file folder) to identify past concerns.
2. Referring to Project Contact List, call primary landowner contact and confirm phone, email, and contact(s). Inquire about any landowner-identified conservation area concerns. Update Project Contact List.
3. Visit and inspect the conservation area, especially the entire boundary, areas identified as a concern in prior years, owner-identified areas, and trails. Note on paper map, and photograph, any issues of concern such as ATV trails, dumping, tree cutting, land disturbance, etc.
  - Use iPad to navigate to and confirm each boundary post/placard location. Replace any missing or damaged posts, placards (if not also posted), and/or stickers. Drive posts, if possible, until driver contacts ground. Add no-mow stickers if boundary is edge of mowed area. Add no-ATV stickers if ATV trespass a concern. Add posts if greater than 200' between posts.
4. Use the inspection report template to report back to the landowner contacts the findings of the easement inspection VIA EMAIL, including prior-year issues, current-year issues, and required corrective actions with timeline. Include photos of easement violations (if any), plus conservation easement factsheet, conservation easement generic summary, and notated project Conservation Area Features Map. Request landowner contact reply via email, and save the reply (with original email report) to the electronic project file folder.
  - CER will attempt to resolve any minor infractions directly with the landowner. If any issues are significantly destructive and/or not speedily remedied by the landowner, enlist the assistance of NKURF Executive Director. NKURF Executive Director will determine whether to involve the NKURF attorney.
5. Maintain a record of annual inspections, including visit date, staff involved, issues identified, and resolutions.
6. Bill all inspection labor and expenses to "Conservation Easement Management".

#### **Restoration Project Assessments:**

1. Walk and visually assess stream and wetland restoration project areas. Note on paper map, and photograph, any active or impending project failures such as eroding banks, failure of in-stream structures, debris accumulation, etc. Upon return to office, discuss with project manager to determine if repair is warranted.
2. Follow-up project repairs, if any, will be billed to project budgets or Program Contingency Account.

NKU Stream Restoration Program			
Annual Conservation Area and Restoration Project Inspections			
Year 2022			
	Easement Insp (Responsible Party)	Restoration Insp	
Project / Property	Report Date; Initial	Inspect Date; Initial	Comments
<b>NKURF CONSERVATION EASEMENTS; NKU-CER CE INSPECTIONS</b>			
Bentwood Hills Condos	3/31/22 BH	multiple SF	Major sewer upgrade and realignment scheduled for 2022-23
Bullock Pen Tributary Preserve	(KCCD)	SF 1/9/22 all ok	Bullock Pen main deflectors primarily protect tributary and others are experimental: no further repairs of deflectors to be undertaken
Canterbury Apts + KYTC	4/5/22 BH	SF 1/18/22	
Darlington Farm Condos	3/21/22 BH	SF 1/14/22	3' beaver dam
Joe's Creek Property + Aspen Pines	3/31/22 BH	SF 1/8/22 all ok	fish rubble/cyolopous animals if any.
Latonia Banklick (Covington + LYC)	(KCCD)	SF 2/12/22 all ok	
Parkside Preserve	4/8/22 BH	SF 1/18/22 all ok	
Woodland Hills Condos + NKWD	3/31/22 BH	SF 2/12/22	remove 2 loose boulders from upper reach control
Wright Farm	(KCCD)	multiple SF	
<b>STATE-OWNED / DEED-RESTRICTION OR OTHER EASEMENT HOLDER; OTHER PARTY CE INSPECTIONS</b>			
Adair WMA	(KDFWR WMA)	SF 1/20/22 →	most of wtr. b incised; some lower stream velocity stripped to AR
Adair/Kruza/McDine/Demler	(TBC)	SF 1/19/22 all ok	
Big Bone Ph 1/Annex/Ph 2/Doolin	(TBC)	SF 1/19/22 all ok eye →	lake prob about 1m to dam leakage did not observe
Big Bone Ph 3 (Piner)	(TBC)	Under Construction	Notify BC Engineer if gravel basin requires gravel removal
Boone Woods Park	(TBC)	SF 1/14/22	ash wood debris in 5' trib debris jams
Burlington Elementary	(TBC)	SF 2/12/22 all ok	
Central Park	(TBC)	Under Construction	
Florence Golf Course	(TBC)	SF 2/25/22 all ok	
Hartig Park	(TBC)???	In Permitting	
Hawthorne Preserve (KHLCF)	(KHLCF)	SF 1/13/22 all ok	
Kingsolver WMA (KDFWR)	(KDFWR WMA)	Under Construction	
Lloyd WMA (KDFWR)	(KDFWR WMA)	SF 1/30/22 - SF 2/1/22 -	Not barn bridge all okay Si. of barn ridge all okay
Reb Stacey Woods	(SHC)	6/6/22 SF	visited on home road on by w/ boulder repair; repairs
St Anne Wetlands (KHLCF)	(KHLCF)	SF 1/29/22	Restoration = Road ditch outlets and parking lot only
Simon Kenton WMA (KDFWR)	(SHC)	SF 7/7/22 + other dates	Inspect stone dam. Inspect fields and boundary access for ATV trespass.
Sleepy Hollow Conservancy	(SHC)	Under Construction	Boundary fencing underway
Split Rock (Quast/Betagole/Remke)	(TBC)	SF 1/27/22	~30' LOP bank erosion some c-h upper; some gullies on LOP slope
Stephens Creek WMA (KDFWR)	(KDFWR WMA)	SF 1/2/22 all ok	
Tower Park + Carmel Manor	(FTFC)	SF 1/26/22 all ok	Maintain 8 open windows min on WCS. Install WCS grate w larger opening 13 windows open
Wolsing Trails Preserve (TKC)	(TKC)	SF 1/28/22 all ok	