



Stream In-Lieu Fee Program Prospectus

U.S. Army Corps of Engineers Huntington District Upper Scioto and Tuscarawas Watersheds

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Objectives

The Ohio Wetlands Foundation (OWF) Huntington stream in-lieu fee program (ILFP) will operate in two service areas in east and central Ohio within the Tuscarawas and Upper Scioto watersheds in the U.S. Army Corps of Engineers (USACE) Huntington District. The proposed service areas will match the service areas for the existing OWF wetlands ILFP in the Huntington District. The ILFP instrument for wetlands mitigation was approved by the Interagency Review Team (IRT) in May 2014.

The OWF stream ILFP will provide third-party compensatory mitigation for unavoidable impacts to streams identified as waters of the United States and waters of the State of Ohio. More particularly, the ILFP will be used to satisfy the compensatory stream mitigation requirements of permits issued under Section 404 and 401 of the Clean Water Act, and Section 10 of the Rivers and Harbors Act. OWF reserves the right to request an amendment of the final instrument to include additional service areas/watersheds. Any amendment of the final instrument to include additional service areas/watersheds will be coordinated with USACE and the IRT, and will include a public comment period.

The goal of the proposed ILFP is to provide for no-net loss of stream length and aquatic functions for streams within the Tuscarawas and Upper Scioto watersheds in the Huntington District. Temporal loss of functions and values will be offset by the use of mitigation ratios as determined by the appropriate regulatory agencies. This prospectus addresses the required elements consistent with federal and state requirements including those set forth in 33 CFR Part 332.

Establishment and Operation

The OWF stream ILFP will operate by providing restoration, establishment, enhancement, and/or preservation of aquatic resources through funds paid to the OWF ILFP to develop resources to satisfy compensatory mitigation requirements for Department of the Army permits or Ohio Water Quality Certifications. This section details procedures and practices that will be established and followed during the operation of the OWF ILFP.

Roles and Responsibilities

USACE is the party responsible for approval of ILFP instruments and oversight of compliance and mitigation activities associated with Section 404 of the Clean Water Act, and/or Section 10 of the Rivers and Harbors Act. In addition, as chair of the IRT, USACE is responsible for consulting with the IRT in accordance with 33 CFR 332.8.

Ohio EPA is the party responsible for issuing 401 Water Quality Certifications in Ohio, and permitting and oversight of compliance and mitigation activities associated with Ohio's isolated wetland law (ORC 6111). Ohio EPA also participates as a representative on the IRT.

OWF is the sponsor for the ILFP and is responsible for oversight, implementation, and fiscal management of the ILFP as described in this instrument. OWF is a non-profit entity recognized under Section 501(c)3 of the Internal Revenue Code and its operations directly involve the restoration, enhancement, establishment, and/or preservation of wetland and stream resources. As a non-profit, natural resource based entity, OWF meets the requirements of 33 CFR 332.2 to be an In-Lieu-Fee program sponsor. OWF has authority under this instrument to enter into agreements with state agencies, non-profit organizations, for-profit organizations, and individuals to implement the ILFP. All activities conducted by third parties under this instrument are the responsibility of OWF.

Project Identification and Development

Project Site Selection. ILFP mitigation projects will target potential sites best suited to replace lost stream functions. The evaluation of mitigation sites will include requests for input from existing watershed coordinators, Soil and Water Conservation Districts, other watershed-based groups/NGOs, communities, counties, ecological consultants, and other state and federal resource agencies. Input will also be sought from permit applicants and industry groups in order to better understand the potential need for mitigation in the ILFP service areas in the near future.

Additionally, geographic spatial data resources will be reviewed (such as National Wetland Inventory Maps, Natural Resources Conservation Service Soil Surveys, U.S. Geological Service StreamStats, and aerial imagery) to help identify and review each potential mitigation site. OWF will request timely feedback from the IRT concerning potential mitigation sites prior to developing a conceptual mitigation plan.

Emphasis will be placed on identifying sites that have existing conditions (soils, hydrology, and/or native vegetation) that are conducive to stream and riparian zone restoration, enhancement, establishment, and/or preservation; are locally and regionally significant in terms of their contribution or potential contribution to reduce sediment and/or nutrient loading and are owned by entities willing to participate in the ILFP. Project sites will be selected and developed in accordance with the information detailed in the Compensation Planning Framework (Appendix C).

Site specific information regarding prospective ILFP project sites will be provided within conceptual mitigation plans once potential ILFP project sites have been identified. All conceptual mitigation plans and instrument amendments regarding the addition of ILFP mitigation sites will be coordinated with the District Engineer in consultation with the IRT.

Mitigation Plan. A mitigation plan will be developed for each ILFP project and is subject to approval by the IRT. Mitigation plans will be developed and implemented in accordance with 33 CFR 332.4 and will include the following required elements:

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|-------------------------------|-------------------------------|
| 1. Project objectives | 7. Maintenance plan |
| 2. Site selection criteria | 8. Performance standards |
| 3. Site protection instrument | 9. Monitoring requirements |
| 4. Baseline information | 10. Long-term management plan |
| 5. Credit determination | 11. Adaptive management plan |
| 6. Work plan | 12. Financial assurances |

Ecological Performance Standards. OWF will propose performance standards for each ILFP site for IRT review and approval. These performance standards will be used to assess whether the project is developing into the desired resource type, providing the expected functions, and meeting any other applicable metrics according to the terms detailed in 33 CFR 332.5. Performance standards may be based upon variables or measures of functional capacity described in functional assessment methodologies, measurements of hydrology, or other aquatic resource characteristics such as diversity of flora and fauna, consistent with the Mitigation Rule (33 CFR 332.5).

Project Approval and Instrument Modifications. Approved projects or the expansion of a previously approved project site may be added as an amendment to the Instrument in accordance with 33 CFR 332.8(g).

For amendments or modifications of the Instrument, OWF will submit a written request for an instrument modification accompanied by appropriate documentation (e.g. mitigation plan) as detailed in 33 CFR 332.8(d). The process for review and approval of amendments will generally follow the process for instrument approval.

As ILFP project sites are identified and optioned or otherwise secured (e.g. written agreement to purchase or to protect in a manner consistent with the Mitigation Rule), OWF will submit mitigation plans to the District Engineer that include all applicable items listed in 33 CFR 332.4(c)(2-14). Within 30 days of receipt of OWF's formal request for an instrument modification, the District Engineer will notify OWF whether the instrument modification request is complete under 33 CFR 332.8(d)(2). Within 30 days of receipt of a complete instrument modification request and mitigation plan, the District Engineer will provide public notice of the request. The comment period will be 30 days, unless otherwise determined by the District Engineer. Copies of all comments will be provided to IRT members and OWF within 15 days of the close of the public comment period per 33 CFR 332.8(d)(4). OWF will review the comments and discuss concerns and issues with the IRT. Within 90 days of receipt of the complete amendment by the IRT members, the District Engineer will notify OWF of the status of the IRT review. Specifically, the District Engineer must indicate to OWF if the amendment is generally acceptable and what changes, if any, are needed. If there are significant unresolved concerns that may lead to a formal objection from one or more IRT members to the amendment, the District Engineer will indicate the nature of those concerns. A revised plan may be submitted to the District Engineer and the IRT for additional comments, if necessary.

At any point, OWF may declare that the mitigation plan is a final submission and request approval from the District Engineer. Within 30 days of receipt of the final plan, the District Engineer will notify the IRT members whether or not he or she intends to approve the Instrument amendment. Project approval will be based upon several factors, including: site suitability, long-term sustainability, benefits to rare and endangered natural resources, maximum ecological return on expended funds, and other factors. The District Engineer may add specific requirements and restrictions to each proposed mitigation project. These include conditions on authorizations through the Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act permit process that could be required for a mitigation project.

The District Engineer may use a streamlined modification review process for changes reflecting adaptive management of the ILFP, credit releases, changes in credit releases and credit release schedules, and changes that the District Engineer determines are not significant. OWF will work with the District Engineer to identify other non-significant modifications that would be suitable for review under the streamlined modification review process. In this event, the District Engineer will notify the IRT members of this determination and provide them with copies of the proposed modification. IRT members have 30 days to notify the District Engineer if they have concerns with the proposed modification. If IRT members notify the District Engineer of such concerns, the District Engineer will attempt to resolve those concerns. The District Engineer will notify the IRT members of his intent regarding the proposed modification within 60 days of providing the notice to the IRT members. If no IRT member objects, the District Engineer will notify OWF of his final decision, and if approved, arranged for it to be signed by the appropriate parties per 33 CFR 332.8(g)(2).

The IRT shall meet on a regular basis, as determined by the IRT chair, to review and approve ILF projects and discuss any program management issues.

The IRT shall be responsive to OWF in terms of providing feedback and guidance on proposed mitigation sites and mitigation plans. OWF shall be responsive to IRT questions and inquiries as the program sponsor.

Project Implementation. OWF or its authorized agents will provide the necessary personnel, equipment, and materials to implement ILFP stream mitigation projects. Within one year of the first advanced stream credit sale, OWF will submit a mitigation and monitoring plan to the District Engineer (using procedures outlined in Section III(B)(4) of this instrument). Land acquisition and initial physical and biological improvements will be completed by the third full growing season after the first advanced credit in that service area is sold, unless the District Engineer determines that OWF requires more time to plan and implement a project due to a lack of sufficient credit sales. It will not be considered a default of the terms set forth in the final Instrument if an insufficient number of credits are sold in a given service area to accrue enough funds to implement an environmentally sustainable project. If this occurs, the District Engineer may direct OWF to transfer funds to any project or proposal that it deems appropriate.

Monitoring. Monitoring of ILFP projects will be conducted to determine if the project is meeting its performance standards and trending towards success as described in 33 CFR 332.6. Each project-specific mitigation plan will include a monitoring plan that will describe the performance standards to be monitored, the methods for monitoring, the length of the monitoring period, the dates that the reports must be submitted, and the frequency for submitting monitoring reports. OWF will be responsible for submitting monitoring reports to the IRT based upon terms set forth in the approved mitigation plan. At the request of an authorized representative of USACE or the IRT, OWF shall allow access to ILF project sites to determine compliance with the terms in the instrument.

The content and level of detail of the monitoring reports will be commensurate with the scale and scope of the mitigation project, as well as the mitigation project type. Each report shall contain, at a minimum, the following information:

1. Monitoring results with comparisons to performance standards
2. Plans, maps, and photographs to illustrate site conditions
3. A narrative summarizing the condition of the project
4. Recommendations for adaptive management, if needed

Instrument Re-Evaluation. After a period of not more than 5 years from the date of approval, the OWF ILFP instrument will be re-examined to evaluate the objectives and results of the ILFP. The District Engineer, IRT, and OWF will work in good faith to identify strengths and weaknesses within the OWF ILFP, and suggest or recommend adaptive changes to the ILFP and/or the final ILFP Instrument.

Accounting Procedures and Account Reporting Protocols

The ILFP shall establish and maintain a ledger of advance credits, credit development and credit sales for each service area. Transactions will be tracked in terms of how the credits are generated, i.e., the cost of establishment, restoration, enhancement and/or preservation of streams. Information in the ledger shall also include fulfillment and replenishment of advance credits, the beginning and ending balance of available credits and permitted impacts for each resource type, all additions and subtractions of credits, and any other changes in credit availability (e.g., additional credits released, credit sales suspended by USACE, etc.).

Site specific ledgers shall track credits released by type, credits used to fulfill advance credits, and credits sold directly to permittees.

The ILFP shall annually provide USACE with a statement of account(s) holding ILFP funds. The account reports are to be submitted to USACE by March 31 of each year. The reports will include information related to all income, disbursements, and interest earned for each service area account, all permits for which fees were accepted for each service area (including USACE permit number and/or state permit number, the service area in which the authorized impacts are located, the amount of authorized impacts, the amount of required compensatory mitigation, the amount paid to the ILFP, and the dates the funds were received from the permittee), a description of program expenditures (e.g. land acquisition, planning, construction, monitoring, maintenance, contingencies, adaptive management, and administration), the balance of advance credits and released credits at the end of the report period for each service area, and other information that may be reasonably required by USACE and the IRT.

Legal Responsibility for Mitigation

The permittee retains responsibility for providing compensatory mitigation until the appropriate number of credits have been secured from the OWF ILFP and USACE and/or Ohio EPA has received documentation that the OWF ILFP has accepted the responsibility for providing the compensatory mitigation. The written notification will be provided by OWF to USACE and/or Ohio EPA and will provide permit number, amount of mitigation required as per terms of the permit, and statement identifying the number of credits purchased by the applicant. This notification may be provided by OWF to USACE electronically (via email or facsimile), by overnight carrier, or by U.S. Mail. OWF, USACE, and Ohio EPA shall establish a point of contact for documentation of all transactions at the time of instrument approval. Revisions to the point of contact shall be made in writing to the USACE regulatory division chief, the Director of Ohio EPA, or to the President of OWF as appropriate.

In-Lieu Fee Program Account

OWF shall be permitted to retain up to 15% of all ILFP payments to offset cost of operations and overhead and development of the ILFP instrument/amendments as well as ongoing cost to identify mitigation sites (including costs to work with agencies, watershed groups, etc. to assist with development of watershed plans and to assess potential mitigation sites). The remainder of payments received by the ILFP will be deposited into an interest bearing, FDIC-insured account or series of accounts to ensure account levels remain within FDIC insurance limits.

OWF shall account for the funds in accordance with generally accepted accounting principles, and the accounts shall be subject to audit by the District Engineer when deemed necessary after giving notice to OWF. Interest earned by the ILFP and proceeds from the sale of ILFP credits shall remain in the account until approved for use by the District Engineer. Funds in excess of the amount needed for mitigation projects within a designated service area shall be held in reserve in the ILFP and utilized for future expenses associated with new mitigation projects in that service area or for un-anticipated remedial work for projects previously completed by OWF within the service area. Disbursements of funds from those held in reserve in the ILFP account will require approval from the District Engineer, in consultation with the IRT. Appropriate supporting information to justify the disbursement will be provided to the District Engineer and IRT commensurate with the amount of funds to be released.

The District Engineer, in consultation with the IRT, will determine whether financial assurances are warranted for an ILFP project. If financial assurances are warranted, they may be provided in a form agreeable to OWF and the District Engineer and may include construction performance bonds, letters of credit or sufficient existing funds in the ILFP account. It is anticipated that financial assurances will not typically be required beyond documentation of payment by permit applicants for credits purchased from OWF and deposit of funds into FDIC insured banking accounts.

For an ILFP project, OWF shall obtain adequate site ownership or formalized access and site protection agreements and initiate biological and physical improvements within three full growing seasons of the date of the first advance credit in the service area being secured by a permittee. If more than three years pass from the date of permit issuance and a mitigation site has not been secured, USACE may direct that the funds be allocated to any project or proposal that it deems appropriate, and that mitigation liability to the ILFP shall be reduced accordingly and transferred to the party receiving such funds. If directed by the District Engineer, OWF will transfer funds to the separate party equal to the value paid for credits purchased from OWF. OWF may be permitted by the District Engineer to retain all or a portion of the administrative fee provided that it can demonstrate the portion of the administrative fee that has been expended to date in an effort to identify a suitable mitigation site to fulfill the mitigation credit requirements.

As per 33 CFR 332.8(n)(4), the District Engineer, at his discretion, may allow extensions of the three-year time limit. As an alternative to extending time allowed to implement a project, the District Engineer may direct OWF to disburse funds from the ILFP account to provide alternative compensatory mitigation. Funds paid to the OFW ILFP by applicants will be used to pay for site selection, planning, IRT coordination, design, ecological and cultural resource coordination, acquisition, implementation, monitoring, management and protection of ILFP projects as approved by the District Engineer. Long-term maintenance and management funding will be determined on a project basis and will include funds to support the long-term care and protection of the compensatory mitigation project.

The District Engineer may audit the records pertaining to the ILFP accounts. Complete budgets for ILFP projects will be approved as part of mitigation plans. An annual report will be presented by March 31 of each year and submitted to USACE for review. Reports will include detailed summaries of the ILFP, funds received, credits sold or transferred and expenses incurred, including administrative expenses. The District Engineer will require notification of all deviations in excess of the approved budget. Specific IRT approval will be required for deviations above 10% and at the discretion of the District Engineer. USACE may review ILFP records with 14 days advance written notice. When so requested, OWF shall provide all books, accounts, reports, files, and other records relating to the ILFP.

Proposed Service Areas

The OWF ILFP will operate in two geographically distinct service areas in the Huntington District. The ILFP will designate one service area that consists of the Tuscarawas River (05040001) 8-digit HUC watershed and one that consists of the Upper Scioto River (05060001) 8-digit HUC watershed. Each of the 8-digit HUC watersheds will also have secondary service areas that include the remainder of the 6-digit HUC watershed in which each respective 8-digit HUC primary service area occurs (050400 Muskingum for the Tuscarawas service area and 050600 Scioto for the Upper Scioto service area).

The use of a secondary 6-digit HUC service area is proposed due to the small amount of average authorized impacts that occur within the remainder of the 6-digit HUC accounting units and due to the lack of IRT-approved mitigation banks or ILFPs in those watersheds. USACE and/or Ohio Environmental Protection Agency (EPA) may authorize the use of the ILFP by permit applicants within the secondary service area on a case by case basis, when other ecologically preferable mitigation is unavailable, and consistent with the watershed approach outlined in 33 CFR 332.8.

Need and Technical Feasibility

There are currently no approved stream mitigation banks or ILFPs within the watersheds in the OWF ILFP service areas identified in this prospectus; project proponents are forced to provide compensatory stream mitigation through permittee-responsible mitigation projects. These projects are often expensive and hard to identify, leading to project delays and cost increases for permittees. Additionally, these projects are often of questionable ecological success. Establishment of a stream ILFP will provide regulatory agencies and the public a valuable mitigation option, leading to more consistent compensatory mitigation expectations for the regulated community.

The watersheds located in the OWF ILFP service areas in the Huntington District have been impacted by past urban development, industrial activities, agriculture, timber harvesting, and mineral resource extraction. These threats are expected to continue or increase in the future as cities such as Akron, Canton, and Columbus rebound from the economic recession of the late 2000s, and coal mining and natural gas retrieval expand in the region. Impacts to streams will continue to be needed as the extensive network of pipelines and appurtenant structures are constructed as development of the Utica and Marcellus shale field continues. This will necessitate the development of effective options for compensatory mitigation. Table 1 presents details regarding the average annual impacts to streams within the watersheds within each service area, providing additional documentation of the need for stream mitigation options in this portion of the State.

Table 1. Stream Impact Data

HUC Basin	HUC Sub-basin	Primary Stream Name	2004-13 SFY Average 401 Authorized Impacts to Streams (linear feet)	2010-2013 Average Nationwide Permit Authorized Impacts to Streams (linear feet)	Average Annual Impacts to Streams (linear feet)
6-digit HUC	8-digit HUC (or combination as per ORC 6111)				
050400	-01	Tuscarawas	17,642	7,751	25,393
050600	-01	Upper Scioto	8,496	9,575	18,071

The use of mitigation banks and ILFPs for compensatory mitigation can help to reduce the risk and uncertainty associated with the replacement of lost water resources and associated functions and services. When compared to permittee-responsible mitigation, mitigation banks and ILFP mitigation sites generally provide larger, more ecologically valuable mitigation options. Additionally, these sites must go through rigorous scientific and technical analysis prior to their acceptance as an authorized mitigation site. The proposed OWF ILFP will provide a preferred method of compensatory mitigation for projects located within watersheds that currently lack an operating stream mitigation bank or ILFP.

A wealth of data related to water quality assessments and conservation opportunities is publically available from several resources (Division of Forestry FRAS Priority areas, Division of Wildlife Focus Areas, and Ohio EPA TMDL locations). These resources provide scientific based data from which mitigation priorities can be established and potential mitigation project sites can be

identified. Mitigation projects can then establish specific, quantifiable targets for water quality improvement and aquatic resources restoration

Long-Term Management Strategy

The ILFP projects completed by OWF will include an appropriate entity to assure long-term stewardship. Established, restored, enhanced, or preserved streams and their buffers shall be protected in perpetuity in a site protection instrument that shall run with the land and shall remain in place in the event of transfer of the land. Per 33 CFR 332.8(t)(2), real estate instruments, management plans, or other long-term protection mechanisms used for site protection must be finalized before advance credits can become released credits. If portions of acquired properties are not used for compensatory mitigation, those portions may be excluded from the long-term protection mechanisms. Owners and long-term stewardship providers will typically be units of government including: metropolitan park districts; Soil and Water Conservation Districts; Ohio Department of Natural Resources or other appropriate natural resource/educational entities. In some cases, non-governmental organizations or watershed-based organizations may be engaged to provide long-term stewardship and/or ownership of compensatory mitigation projects. Achieving an ecologically stable mitigation project that achieves the maximum level of aquatic ecosystem functions and services with the minimum amount of human involvement will be the goal of each ILFP mitigation project. The Long-Term Management and Maintenance Plan shall include, at a minimum, provisions for:

1. Periodic inspections to evaluate the site for signs of trespassing or vandalism. Maintenance will include reasonable actions to deter trespassers and repair any damaged features.
2. Monitoring the condition of structural elements and facilities of the site such as signage, water level control structures, fencing, roads, and trails and provisions to repair said structures, if necessary.

OWF will be responsible for developing a Long-Term Management and Maintenance Plan for each mitigation site. OWF will enter into an agreement with the long-term management entity/owner. This agreement will be provided to USACE and shall include the requirement that the long-term manager/owner shall manage the site consistent with the terms of the project mitigation plan. Once a mitigation site has met its performance goals and has been transferred to the site steward, the steward will be tasked with meeting any and all long-term management responsibilities outlined in that site's management and maintenance plan. OWF shall transfer the long-term management funds/account or otherwise arrange for disbursements from such funds/account to the land stewardship entity once the IRT has concurred that the project has met the established performance goals or IRT approved modified performance goals and monitoring can be stopped. Since the long-term financial needs vary by project, the amount of management funds transferred to the long-term stewardship/owner will be established in the mitigation plan for each mitigation project.

Per 33 CFR 332.7(a)(3), the real estate instrument, management plan, or other long-term protection mechanism must contain a provision requiring 60-day advance notification to the District Engineer before any action is taken to void or modify the instrument, management plan, or long-term protection mechanism, including transfer of title to, or establishment of any other legal claims over, the compensatory mitigation site.

Sponsor Qualifications

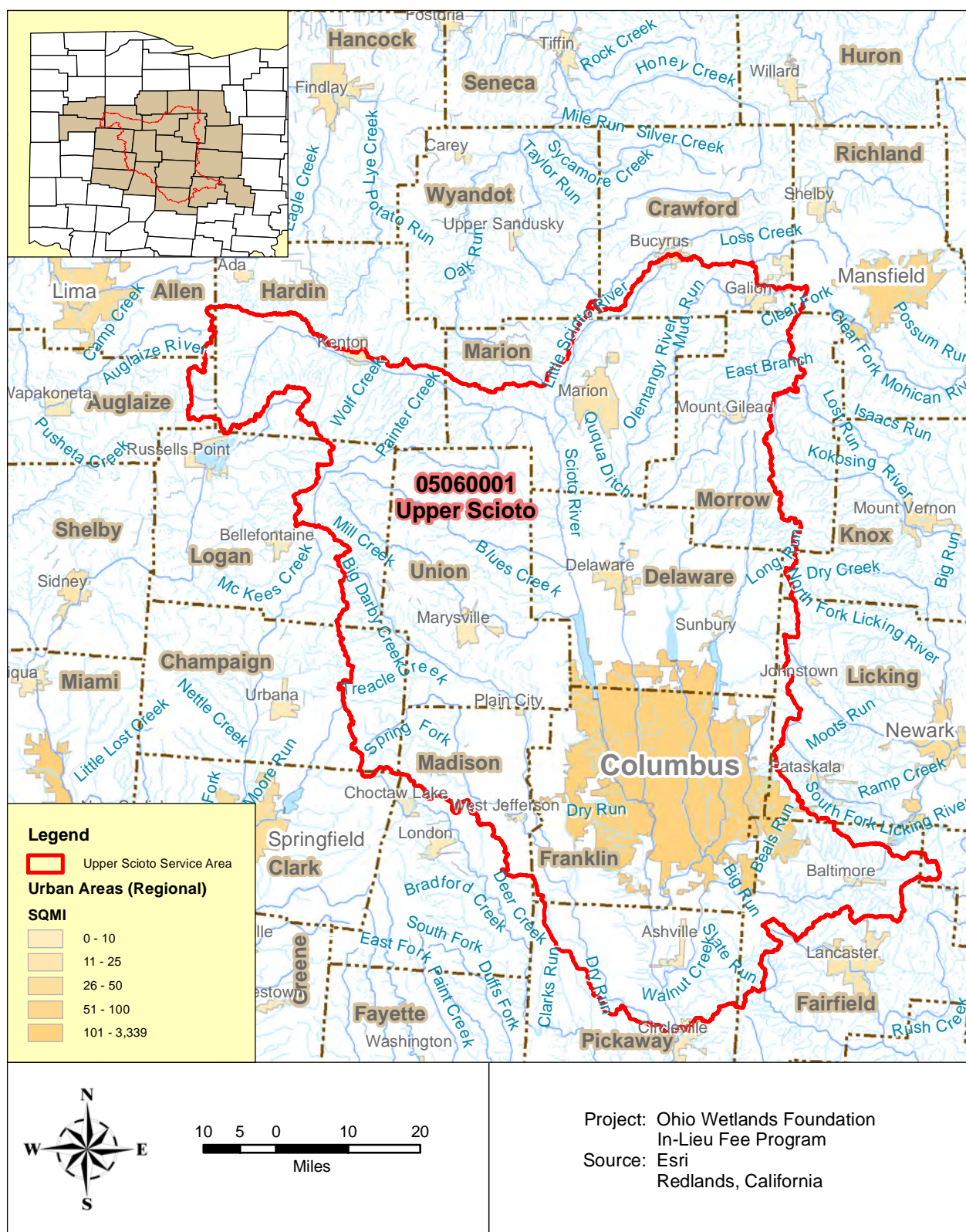
In addition to being a recognized leader in wetland mitigation within the State of Ohio, OWF also constructs and secures high-quality compensatory stream mitigation projects for permittees. Mr. Messerly, President of OWF, has personally overseen the successful design and construction of over 30,000 linear feet of stream restoration and the permanent protection of over 45,000 linear feet of stream within the State. Additionally, OWF recently partnered with Wetland Resource Center to provide over 65,000 linear feet of stream mitigation, consisting of both restoration and preservation, for the Ohio Department of Transportation's Portsmouth Bypass project (PID 19415) in Scioto County, Ohio.

OWF is a non-profit entity recognized under Section 501(c)3 of the Internal Revenue Code and its operations directly involve the restoration and preservation of wetland and stream resources. As a non-profit, natural resource based entity, OWF meets the requirements of 33 CFR 332.2 to be an ILFP sponsor. OWF will continue to have the authority under the instrument to enter into agreements with state agencies, non-profit organizations, for-profit organizations, and individuals to implement the ILFP. All activities conducted by third parties under this instrument are the responsibility of OWF.

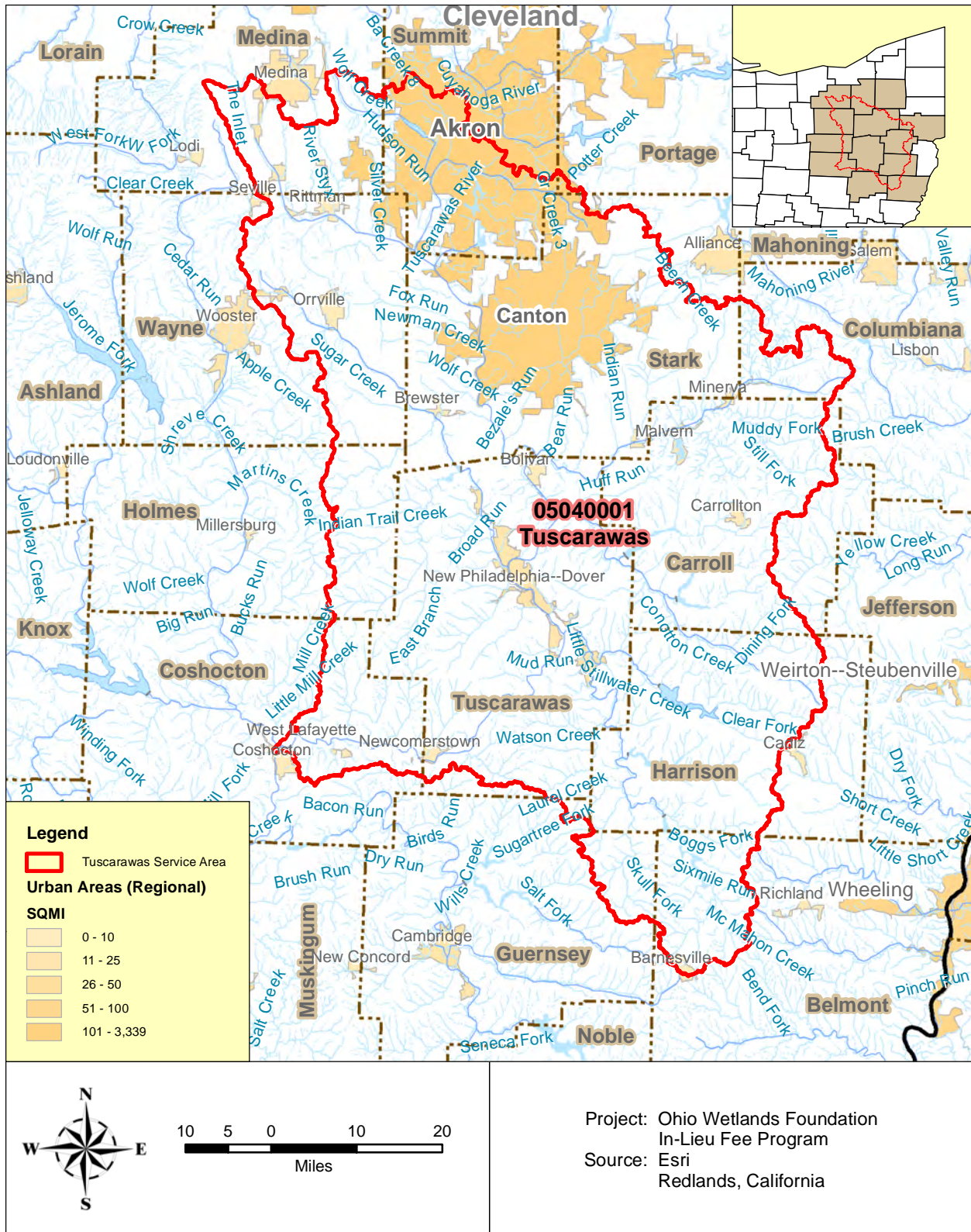
Appendix A

Location of Service Areas on Ohio Map

Upper Scioto Service Area



Tuscarawas Service Area



Appendix B

Compensation Planning Framework

Element I

Geographic service areas including a watershed-based rationale for the delineation of each service area

The OWF ILFP will operate in two distinct service areas based upon single 8-digit HUC watersheds.

- Tuscarawas River watershed within Ohio (HUC 05040001).
- Upper Scioto River (HUC 05060001).

OWF will provide compensatory mitigation for permitted impacts within the same 8-digit HUC in which the impacts occur, or, with approval from the District Engineer upon consultation with the IRT, within the secondary geographic service area. The secondary geographic service areas are defined as each 6-digit HUC.

Element II

Description of threats to aquatic resources in the service areas, including how the in-lieu fee program will help offset impacts resulting from those threats

The OWF ILFP will help to offset impacts resulting from the threats described below by providing replacement stream length, functions, and values through restoration, establishment, enhancement, or by preserving the highest quality water resources, as appropriate.

Tuscarawas Service Area

Water quality threats in the Tuscarawas River watershed result from several different sources, including municipal and individual residential waste water treatment systems, removal of riparian corridor, dams/impoundments, channelization, agriculture, dairy and cattle farming, urban runoff, invasive species, climate change, oil and gas extraction operations (Figure 1), and coal mining operations (Figure 2). Urbanization in the north portion of the sub-basin has contributed to continuing threats to aquatic resources and water quality. Some communities have experienced recent burgeoning population growth; the population of the City of Green in Summit County near the headwaters of the Tuscarawas River grew by 12.6% between the 2000 and 2010 United States censuses.

Upper Scioto Service Area

Water quality threats in the Upper Scioto watershed result from several different sources, including municipal and individual residential waste water treatment systems, removal of riparian corridor, dams/impoundments, agricultural runoff (nutrient enrichment, atrazine), sedimentation, invasive species, climate change, and expansion of urban areas.

Increasing urbanization is a major threat to aquatic resources and of paramount concern for the long-term sustainable management of the remaining natural areas in this portion of Ohio. Portions of the Upper Scioto sub-basin have experienced rapid population growth within the past few decades. According to the U.S. Census Bureau, Delaware County, which is drained in part by the Olentangy River, was listed as the 22nd fastest growing county in the United States, and the fastest growing county in Ohio (Delaware County Regional Planning Commission 2012).

These threats are of particular importance within this sub-basin, as several communities use surface water bodies as sources of municipal drinking water.

Element III

An analysis of historic aquatic resource loss in the service areas

Tuscarawas Service Area

The Tuscarawas Service Area has a legacy of agriculture, heavy industry, coal mining, and urbanization that has resulted in extensive impacts to aquatic resources in the watershed, both in terms of outright loss and water quality degradation.

Agriculture has been a primary commercial focus of large portions of the sub-basin, including Wayne, Medina, and Holmes Counties within the Chippewa Creek and Sugar Creek watersheds, dating back to the initial settlement of this portion of the state in the early 1800s. In addition to the conversion and draining of wetlands to cropland, agricultural activities resulted in sedimentation of the watersheds' creeks and rivers, and was often coupled with direct manipulation (ditching, channelization, installation of dams) to control the flow of water through the landscape. Dairy farming has been widespread within portions of the sub-basin (primarily in the Sugar Creek watershed); farms within Holmes, Stark, Tuscarawas, and Wayne Counties account for nearly 25% of the total milk production and 26% of the total number of dairy cows in the State of Ohio today.

Industrial activity in areas such as Akron and its suburbs, Canton, Massillon, New Philadelphia, and Dover resulted in the construction of large factories and other facilities. Many of these industries utilized toxic chemicals and heavy metals in their day to day operations. Accidents, intentional dumping, and other releases of toxic waste into water bodies have been persistent problems in the region.

Expansion of urban areas associated with large cities and villages in the north of the sub-basin, including Akron, Barberton, Wadsworth, Canton, and Massillon, among others, have resulted in direct impacts to streams and wetlands, and conversion of open space to more intensive land uses. Failing septic systems, combined sewer overflows, and storm water runoff have all contributed to the degradation of water quality in this service area. Growth of these communities has also resulted in increased development of roads and other modes of transportation, resulting in fragmentation of wetland and natural areas and culverting of streams. Large numbers of dams have been constructed on the Tuscarawas River and its tributaries for water supply and flood control. These dams have a profound effect on the flow regime of the lower Tuscarawas River.

Upper Scioto Service Area

The Upper Scioto Service Area has a legacy of intensive agriculture, and urbanization associated with the City of Columbus and its suburbs. These influences have resulted in extensive impacts to aquatic resources in the watershed, both in terms of outright loss and water quality degradation

Outside of the Columbus metropolitan area, the majority of the Upper Scioto River and associated watersheds are characterized by land utilized for the production of agricultural crops, as well as areas used for dairy and livestock production. Large portions of Hardin, Union, Marion, Morrow, Delaware, Madison, Pickaway, and Fairfield Counties are devoted to these land uses. Historically, this sub-basin contained large amounts of low-lying, forested wetlands. These rich soils were subsequently drained, resulting in productive agricultural areas characteristic of this ecoregion.

Loss of riparian corridors, nutrient enrichment, sedimentation, and direct manipulation of water resources (ditching, channelization, installation of dams) also resulted from the intensive agriculture that has occurred here for centuries.

The City of Columbus metropolitan area has a population of almost 2 million people according to the 2012 census estimates. Columbus and its suburbs have had a strong influence on the water resources in their vicinity. Their growth in the 1800's and 1900's resulted in direct impacts to streams and wetlands, and conversion of open space to more intensive land uses. Failing septic systems, combined sewer overflows, and storm water runoff have all contributed to the degradation of water quality in this service area. Additionally, several large streams and rivers, including the Olentangy River and the Scioto River, have been extensively dammed to control flooding and to provide drinking water to the surrounding municipalities.

Element IV

An analysis of current aquatic resource conditions in the service areas

Tuscarawas Service Area

The Tuscarawas River watershed, located within portions of Summit, Medina, Stark, Carroll, Columbiana, Tuscarawas, Harrison, Holmes, Belmont, Wayne, Guernsey, and Coshocton Counties in the Erie Ontario Lake Plain and Western Allegheny Plateau ecoregions, drains an area of approximately 2,589 square miles in Ohio. The watershed includes a physically and demographically diverse region of the State, incorporating densely populated urban areas in the cities of Akron, Massillon and Canton, and more sparsely populated, rural areas within the rolling region southeast of Dover and New Philadelphia. The Muskingum River is formed by the confluence of the Tuscarawas River and the Walhonding River in Coshocton.

During the 2003 to 2005 Ohio Environmental Protection Agency (EPA) physical, chemical and biological study of the Tuscarawas River watershed, only 50% of the 141 sites sampled met full aquatic life use attainment (Ohio EPA 2008). Ohio EPA's 2009 Total Maximum Daily Load (TMDL) report determined that the primary causes of impairment in the Tuscarawas River watershed included nutrient enrichment, habitat alteration, sediment, organic enrichment/dissolved oxygen, and pathogens. Although not specifically addressed in the TMDL report, acid mine drainage affects several tributaries in the lower Tuscarawas River watershed.

Additional water quality degradation was documented in the Tuscarawas sub-basin during the 1998 physical, chemical, and biological study of the Sugar Creek watershed. Sugar Creek is a large, north-south flowing tributary that joins the Tuscarawas River in Dover in Tuscarawas County. Sugar Creek drains approximately 365 square miles in portions of Wayne, Tuscarawas, Holmes, Stark and Coshocton counties. Intensive dairy farming and row crop agriculture is abundant within the Sugar Creek watershed. According to the 1998 Ohio EPA report,

“The extent of non-attainment throughout most of the watershed distinguished Sugar Creek as one of the most degraded basins in all of Ohio. Agricultural land use has promoted siltation and habitat destruction across most of the watershed. Polluted runoff from agricultural and mining sources further acted to suppress aquatic life use attainment.” (Ohio EPA, 1998).

Conversely, portions of the Tuscarawas River watershed area dominated by less intensive land use, with little to no major cities or villages.

Some of these watershed support good water quality. Sandy Creek is a large tributary of the Tuscarawas River located in portions of Columbiana, Stark, Carroll, and Tuscarawas Counties. Sandy Creek has a watershed area of approximately 504 square miles, including Nimishillen Creek (188 square miles) and Still Fork (71 square miles). Land cover in the Sandy Creek watershed is dominated by deciduous forest, with components of pasture and agriculture. According to the 2010 biological and water quality study of Sandy Creek (Ohio EPA, 2013), 34 of the 45 sampling sites assessed fully met the designated or aquatic life use designation. Impairments were primarily caused by channelization, agriculture, low-head dams, and coal mining activities.

Upper Scioto Service Area

The Upper Scioto 8-digit HUC is part of the Scioto River watershed. The Scioto River drains an area of approximately 6,513 square miles within portions of 31 counties in the Erie Ontario Lake Plains, Western Allegheny Plateau, and Eastern Corn Belt Plains ecoregions within central Ohio. The Upper Scioto River HUC is primarily comprised of relatively flat land with several densely populated urban areas, including the City of Columbus and its suburbs. The main tributary of the Scioto River, the Olentangy River, joins the Scioto in Columbus.

The middle Scioto River mainstem was studied by Ohio EPA in 1996. Physical, chemical and biological sampling along the river indicated that 35.6 miles (75.6%) of the middle Scioto River was in full attainment of existing aquatic life uses. Partial attainment was indicated for 11.5 miles (24.4%). Impairments were primarily a result of impoundments (Griggs Dam) along the river and treated effluent and combined sewer discharges associated with the more urbanized area downstream of Interstate 270.

One of the highest quality and most biologically diverse streams in the state is located within the Upper Scioto sub-basin: Big Darby Creek. Big Darby Creek and its tributaries drain approximately 555 square miles of predominantly high productivity agricultural areas in Champaign, Franklin, Logan, Madison, Pickaway, and Union counties. During the 2001 and 2002 physical, chemical, and biological study of Big Darby Creek and its tributaries, 66.4% of the 128 sites assessed met full aquatic life use attainment, 24.6% met partial attainment, and 9.4% were in non-attainment of their aquatic life use designation. Big Darby Creek is listed as a State and National scenic river, and is classified by Ohio EPA as Exceptional Warmwater Habitat for much of its length. Floodplain wetlands occur within the riparian corridor of Big Darby Creek.

The Olentangy River, Whetstone Creek, and select tributaries were sampled by Ohio EPA in 2003-2004. The Olentangy River has a watershed area of 543 square miles and is the main tributary of the Scioto River, joining the Scioto in Columbus. During the 2003-2004 physical, chemical and biological study conducted by Ohio EPA, 34 (45.95%) sampling sites fully met either the designated or the recommended aquatic life use, 23 (31.08%) sites partially met, and 17 (22.97%) of the sites were not attaining their designated or recommended use. The primary sources of impairment were high intensity agricultural land use activities, failing on-site wastewater treatment systems, and dams.

Element V

Aquatic resource goals and objectives

OWF will provide enhancement, establishment, restoration and or preservation of streams within the service areas of the ILFP as compensatory mitigation for permitted impacts to these water resources.

In addition to this general goal, OWF will strive to align its activities with the objectives of existing watershed action plans and the operations of conservation organizations functioning within the service areas. Information regarding these plans and groups are provided below.

Tuscarawas Service Area

Several watershed action plans have been endorsed or are in development for watersheds within the Tuscarawas River sub-basin. These include action plans covering Wolf Creek, Nimishillen Creek, and Huff Run (a tributary of Conotton Creek). These documents were developed or are in development by Northeast Ohio Four County Regional Planning and Development Organization (NEFCO) and the Huff Run Watershed Restoration Partnership. These documents outline goals and procedures to protect, restore and enhance natural resources and regional assets of tributaries of the Tuscarawas River. These plans utilized input from watershed community stakeholders to identify important issues and pinpoint resources needing restoration, protection, conservation, and/or preservation so that a long term vision for the watersheds could be developed and attained.

Watershed Management Goals

The watershed action plans identified management recommendations to help improve the quality of life and water quality within the watersheds of the Tuscarawas River. The following management strategies are approaches that OWF ILF projects may specifically address.

- Protecting sites around riparian corridors or sites that have unique habitat features.
- Reducing erosion and sedimentation.
- Establish forested buffer strips adjacent to streams near farm croplands.
- Increase quality of riparian corridors along streams.
- Create wildlife habitat in formerly inhabitable areas affected by acid mine drainage or related landscape.
- Restoration of reclaimed mine sites to reduce acid mine drainage.
- Increase wetland acreage within the watershed to reduce flooding severity.
- Create or restore wetland areas.
- Permanently protect and restore natural, high quality wetlands areas.
- Restore and protect active floodplain area.

Upper Scioto Service Area

Numerous watershed action plans have been developed for watersheds that fall within the Upper Scioto sub-basin. These watershed action plans specifically target the Upper Scioto River, Bokes Creek/Mill Creek, Upper Olentangy, Lower Olentangy, Upper Big Walnut Creek, Lower Big Walnut Creek, Lower Alum Creek, Rocky Fork, and Blacklick Creek. These watershed action plans were developed by a variety of stakeholders, including watershed groups, soil and water conservation districts, and non-government organizations. Specific organizations which have created or contributed to watershed action plans within the service area include: Delaware Soil and Water Conservation District, Friends of Alum Creek and Tributaries, Friends of Big Walnut Creek and Tributaries, Mid-Ohio Regional Planning Commission, Friends of the Lower Olentangy Watershed, Olentangy Watershed Alliance, and the Union Soil and Water Conservation District.

These documents and resources outline goals and procedures to protect, restore and enhance watersheds' natural resources and regional assets within the Upper Scioto sub-basin.

These plans utilized input from watershed community stakeholders to identify important issues and pinpoint resources needing restoration, protection, conservation, and/or preservation so that a long term vision for the watershed could be developed and attained.

Watershed Management Goals

The action plans in place for watersheds within the Upper Scioto sub-basin provide recommendations to help improve the water quality and biological integrity of these resources. The following management strategies are approaches that OWF ILF projects may specifically address.

- Promote conservation of wetlands and natural stream channels.
- Create wetlands in targeted areas to reduce storm water run-off from directly entering streams and creeks.
- Create localized areas for wetland mitigation sites.
- Participate in activities that preserve and restore current agricultural land into metro parks.
- Create vernal pools.
- Increase the diversity and quality of riparian habitat along the Scioto River mainstem.
- Create riparian forest buffers and wetlands on agricultural croplands or marginal pasturelands.
- Develop wetlands, riparian and aquatic habitat areas.
- Construct filter strips along riparian corridors.

Element VI

Prioritization strategy for selecting and implementing mitigation activities

Potential sites for ILF mitigation projects will target priority conservation habitats best suited to replace lost stream functions. The search for mitigation sites will seek input from existing watershed coordinators, Soil and Water Conservation Districts, other watershed-based groups/NGO's, permit applicants, communities, counties, ecological consultants, and other state and federal resource agencies. Additionally, geographic spatial data resources will be reviewed (such as National Wetland Inventory Maps, National Resource Conservation Service Web Soil Surveys, U.S. Geological Service StreamStats, and aerial imagery) to help identify and review each potential mitigation site.

Emphasis will be placed on identifying sites that are locally and regionally significant in terms of their contribution or potential contribution to provide key wildlife habitat; reduce sediment and/or nutrient loading, provide public access for recreation and education; and are owned by entities willing to participate in the ILFP.

Element VII

Preservation objectives

33 CFR 332.3(h) states that preservation must protect resources that provide important physical, chemical or biological functions. These resources must be under threat of destruction or adverse modification. Preserved sites must be permanently protected through an appropriate real estate or legal instrument.

Under the OWF ILFP, preservation projects will incorporate objectives identified within the watershed approach to protecting aquatic habitat and functions. These projects may include preservation of high quality streams, protecting areas of critical habitat for threatened or endangered species, or conserving important natural areas. These areas may include sites identified in regional watershed action plans, or conservation plans developed by U.S. Fish and Wildlife Service, or Ohio Department of Natural Resources, Division of Wildlife.

In accordance with the federal mitigation rule, preservation-only projects may be used to provide compensatory mitigation when the following criteria are met:

- The resources to be preserved provide important physical, chemical, or biological functions for the watershed;
- The resources to be preserved contribute significantly to the ecological sustainability of the watershed;
- Preservation is determined by the District Engineer to be appropriate and practicable;
- The resources are under threat of destruction or adverse modification;
- The preserved site will be permanently protected through an appropriate real estate or other legal instrument.

Element VIII

Description of stakeholder's involvement

As the ILFP sponsor, OWF will work closely with federal and state agencies, other conservation partners, and private landowners to identify projects that take into account local knowledge and planning efforts. OWF has worked extensively with a wide variety of government agencies, NGOs, and county and local administrators in the past. OWF will work collaboratively with partners in Ohio to evaluate stream mitigation opportunities, and to develop mitigation plans and assessment strategies. Projects will be evaluated using standard quantitative assessment methodologies pre- and post-project implementation to help determine the effect of the restoration activities on the aquatic ecosystem. Use of standard assessment methodologies will allow for the performance of OWF ILF projects to be compared against other restoration activities.

In addition to the expertise and experience of the program sponsor, OWF regularly collaborates with environmental consultants that provide additional knowledge and technical proficiency to help identify, implement, and evaluate the performance of a restoration project. OWF will work closely with volunteers and local partners to create projects that maximize conservation potential and target water quality improvements.

OWF will strive to create strong relationships and partnerships with conservation groups and private landowners that share common restoration and preservation goals and strategies. These bonds will allow OWF to further target and prioritize projects with the maximum potential for improving the aquatic ecosystem, protecting important wildlife habitat, and enhancing existing conservation strategies and goals. OWF will continue to foster relationships with partners from federal, state, local, academic, industry, and private entities to ensure that successful conservation and restoration projects are completed.

Potential partners and stakeholders include:

- Federal Government Agencies

- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- Natural Resource Conservation Service
- U.S. Environmental Protection Agency
- National Park Service
- National Oceanic and Atmospheric Administration
- State Agencies
 - Ohio Environmental Protection Agency
 - Ohio Department of Natural Resources
 - Ohio Historic Preservation Office
- Other
 - Conservation organizations
 - Watershed action groups (including but not limited to the Mahoning River Consortium, and Little Beaver Creek Land Foundation)
 - Soil and Water Conservation Districts
 - Land trusts
 - Private landowners
 - Industry groups
 - Environmental consultants

These partners can assist with a variety of tasks related to the ILFP, including identifying potential mitigation projects, holding easements or environmental covenants, assisting with the development and implementation of monitoring programs, and providing long-term management and resource protection.

Element IX

Description of long-term protection and management

OWF will be responsible for developing and implementing a long-term protection and management plan for each OWF ILF project. On privately-owned property, including property held by OWF or other conservation organizations, real estate instruments will be developed and recorded to provide legal mechanisms to protect aquatic resources in perpetuity. Draft conservation easements or equivalent protection mechanisms will be submitted to the IRT as part of each project mitigation plan for review and approval.

In the event that projects are implemented on publicly-owned property, long-term protection and management may be provided through facility management plans or integrated natural resource plans.

To the maximum extent practicable, OWF ILF projects will be designed to require little or no long-term management efforts once performance standards have been achieved. OWF will be responsible for maintaining OWF ILF program projects consistent with the mitigation plan to ensure long-term viability as functional aquatic resources.

OWF shall retain responsibility unless the long-term management responsibility is formally transferred to a USACE approved long-term manager. The long-term management plan developed for each OWF ILF project will include a description of anticipated management needs with annual cost estimates and an identified funding mechanism (such as non-wasting endowments, trusts, contractual arrangements with future responsible parties, or other appropriate financial instruments).

The final conservation easement or equivalent mechanism for long-term protection will be submitted to the IRT for review upon acquisition of the site and will be the first milestone for which credit release can occur. Upon achieving its performance standards and approved transfer of the project for long-term management and protection OWF will request that USACE issue written “closure certification” in coordination with the IRT.

Element X

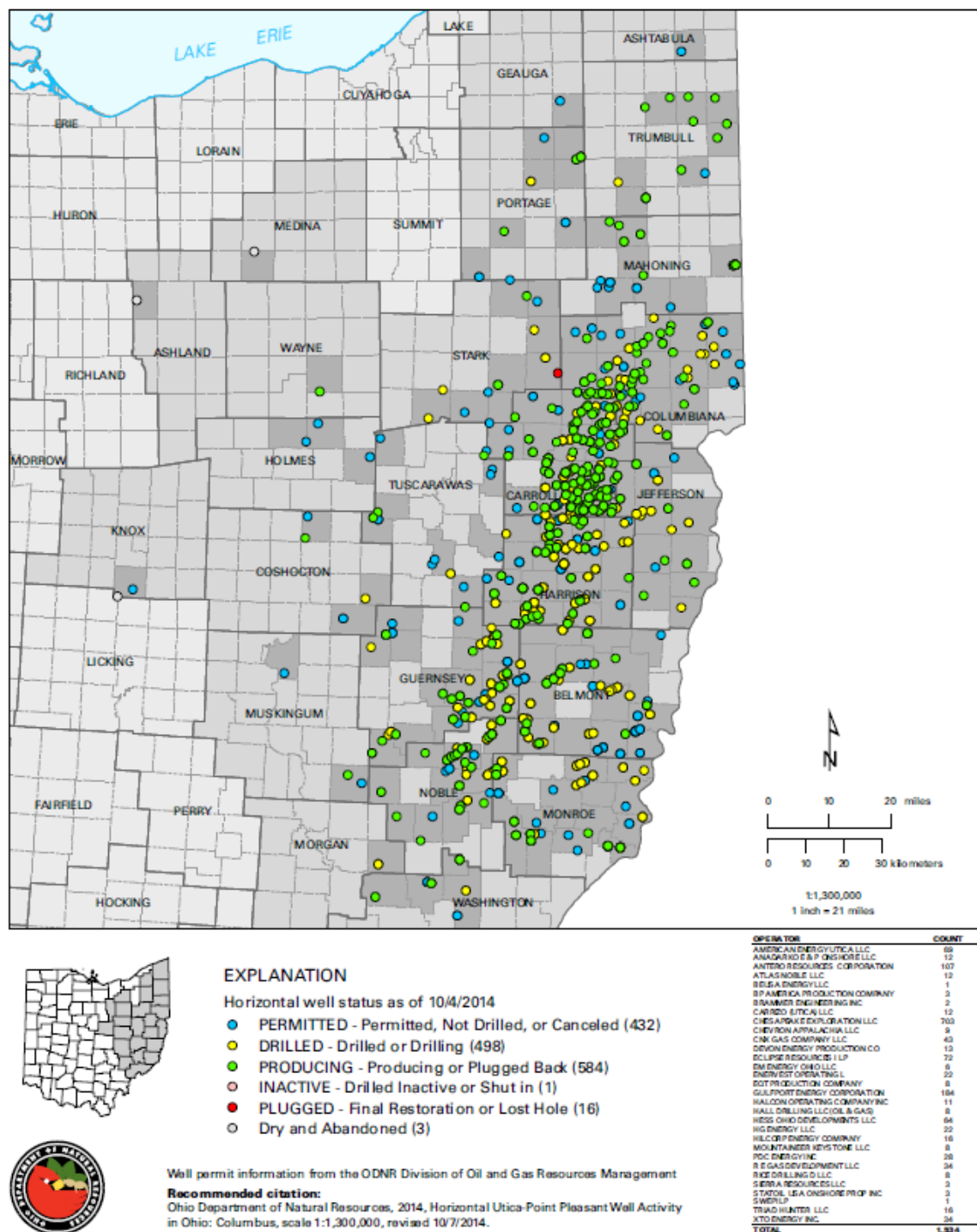
Program monitoring and reporting

OWF will submit an Annual Program Report to the IRT no later than March 31 of each year and will include program data from the previous calendar year (January 1 – December 31).

OWF will periodically provide an evaluation report documenting performance and success of the OWF ILFP as established in the final Instrument and Compensation Planning Framework. This evaluation report will identify programs strengths, and any perceived weaknesses in implementation of the program’s projects. Finally, these reports will provide documentation of any proposed changes to the Compensation Planning Framework.

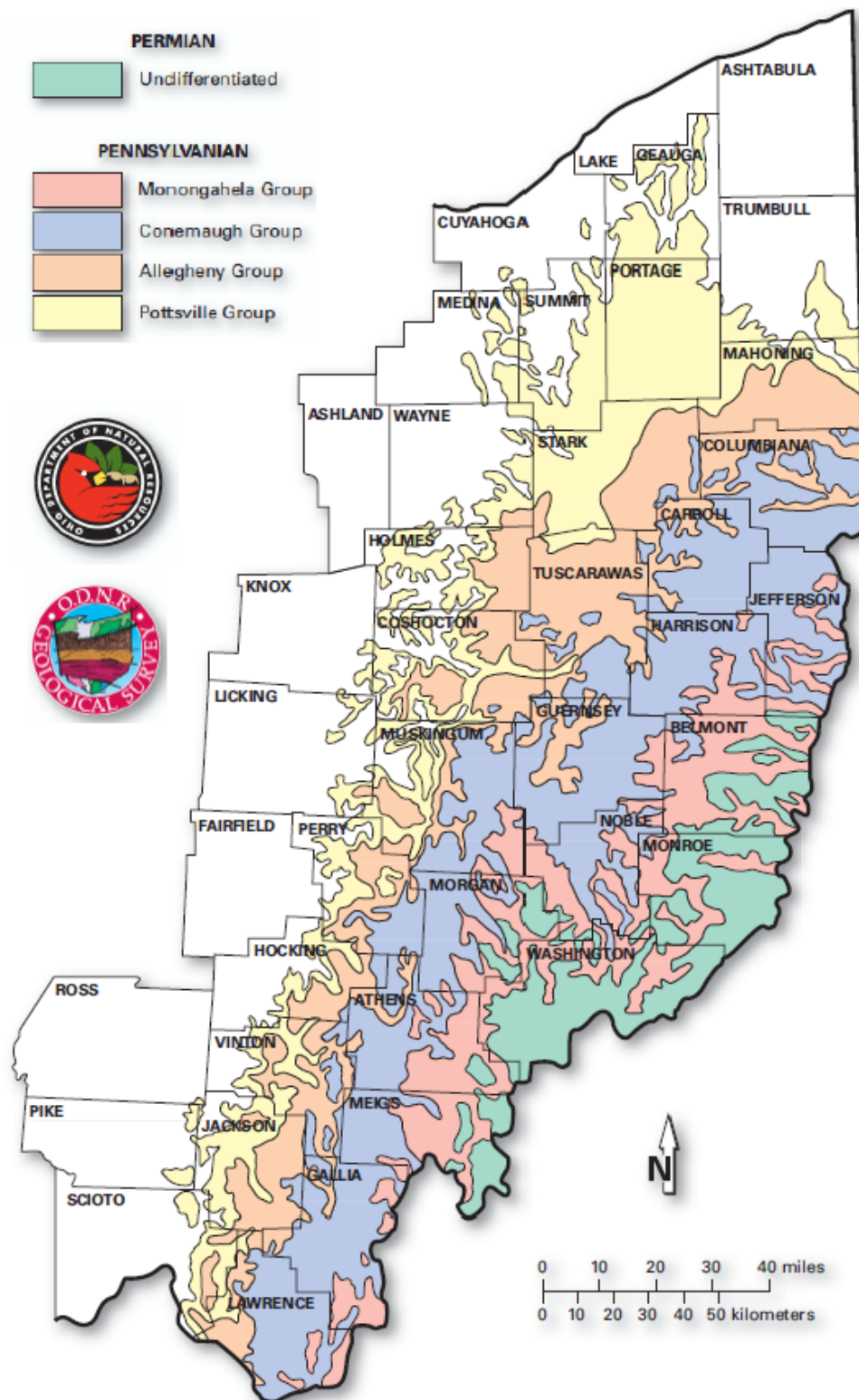
Annual mitigation monitoring reports will be submitted to USACE for each OWF ILF project. These reports will document the current status of the water resources on the mitigation sites, and will provide details regarding the trajectory of the site to meet established performance standards.

Appendix B, Figure 1 Horizontal Utica-Point Pleasant Well Activity



Appendix B, Figure 2

Map of Coal-Bearing Rocks of Ohio



Appendix C

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