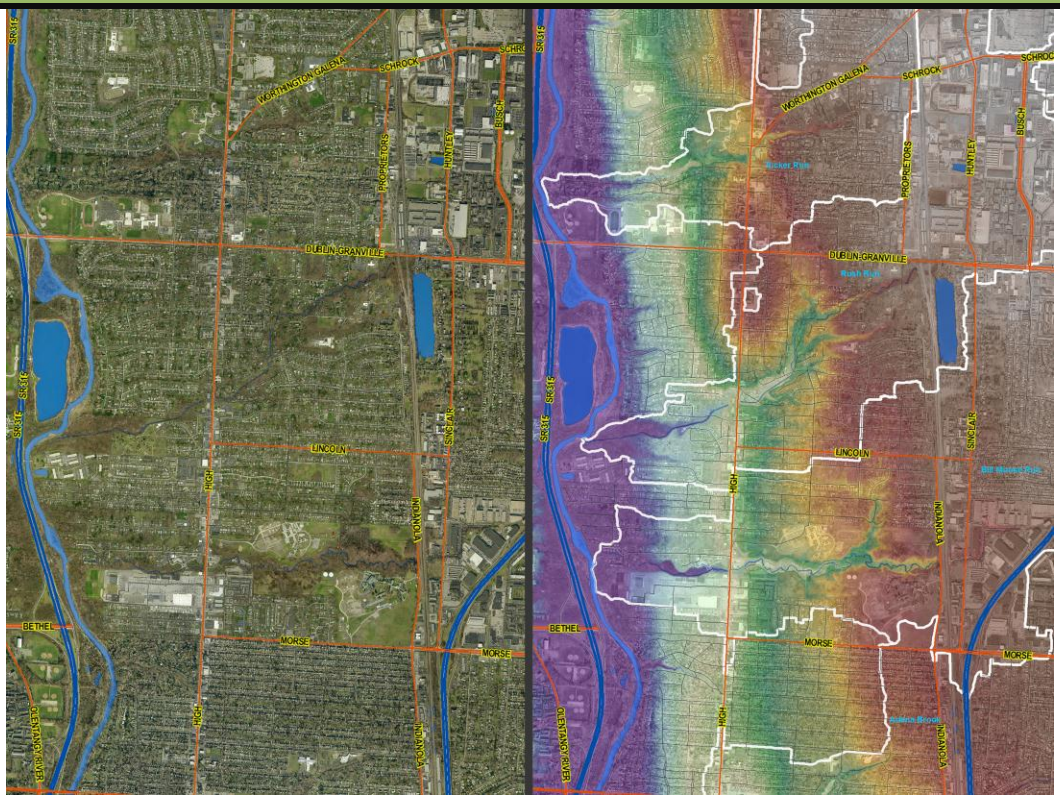
Franklin Soil and Water Conservation District

Creating Conservation Solutions for Over 60 Years

City of Columbus

Proposal to Develop Urban Watershed Delineations

2014



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1.0 Introduction

Franklin Soil and Water Conservation District is pleased to offer the following proposal for providing continued assistance to the City of Columbus with developing urban delineations and associated services to assist with the Blueprint Columbus effort currently underway. The focus of this effort is eliminating sanitary sewer overflows while also investing in Columbus neighborhoods and the local economy. The following provides an overview of our organization, elaborates on our understanding of the scope of services required for this project, and outlines a proposal for undertaking the project.

Franklin Soil and Water Conservation District

Franklin Soil and Water Conservation District (FSWCD) is the natural resource agency in Franklin County with the sole purpose of promoting conservation and responsible land use for better water quality and natural resource management. This is accomplished through establishing partnerships, providing technical guidance, and engaging communities. All of our programs are focused on protecting or improving water quality and natural resources for the benefit of central Ohio residents.

With a staff of 20 experienced and highly qualified individuals, we have been developing and implementing conservation solutions for over 60 years in Franklin County and are excited to continue this challenging effort. Stormwater management is central to our work, and we continually strive to develop new ideas, tools, and approaches to increase the visibility and implementation of stormwater management approaches and practices. This project aligns very well with our organization's mission and we believe it is a responsible and worthwhile endeavor worth pursuing.

FSWCD has intergovernmental working agreements with a majority of the municipalities in Franklin County, Franklin County, all 17 townships, and the Mid Ohio Regional Planning Commission. Included in these partnerships is the City of Columbus (City), which has been a supporter and beneficiary of our stormwater management efforts for many years. Starting in 2001, FSWCD and the City initiated a partnership for the mapping of stormwater infrastructure and surface water resources. These efforts include refinement of surface water flow routes, in-field verification and mapping of outfalls and connectivity of stormwater lines throughout Columbus as well as a majority of the municipalities within Franklin County.

2.0 Project Understanding

By means of meetings, correspondence, and discussions with City staff and employees of Arcadis, the following is FSWCD's understanding of the services being requested by the City of Columbus for this ongoing effort. Note that some of the following are excerpts from The City of Columbus Department of Public Utilities website.

Recently, the US Environmental Protection Agency recognized the importance of allowing cities to take into consideration all of the regulatory challenges of complying with the Clean Water Act, and to prioritize work to achieve water quality goals more efficiently. They issued a policy encouraging cities to integrate the work needed to comply with both stormwater regulations and elimination of sewer overflows, and are strongly promoting the use of green infrastructure to meet these challenges. This approach is referred to as Integrated Planning.

In August 2012, the City asked Ohio EPA for permission to delay some of their WWMP projects to allow time to explore whether there are better alternatives associated with the proposed integrated planning approach. Ohio EPA has granted the City's request to explore options and the City is to develop an integrated plan by September 15, 2015. The City has initiated the Integrated Planning process and has hired the consulting firm Arcadis to assist in the coordination of this process.

Core to developing an integrated plan is a having a thorough understanding of the municipal separate storm sewer system (MS4) including, but not limited to: the extents of the system, system components and system connectivity, as well as land cover, land use, and land ownership across the landscape contributing flows to the MS4. However, when evaluating urban watersheds in an environment such as Columbus, understanding the makeup of watersheds is complicated by the fact

that subsurface drainage changes the configuration of watersheds from boundaries which originally corresponded to naturally occurring surface drainage to configurations dictated by the extensive network of stormwater pipes and appurtenances.

The intent of this project is to develop urban watershed delineations throughout most of the Columbus service area. It is understood that the City has a submission to OEPA in September, 2015 and, as such, the City is requesting that a good faith effort be made to complete accurate, urban watershed delineations throughout as much of the Columbus service area as is feasible with funding allocated by the City for this effort.

The approach to this project will be to utilize 'best available data' from the City and FSWCD within a GIS framework to create watershed boundaries. This data will then be returned to the City in file geodatabase formats for review, comment and use.

At this time, FSWCD has completed, to the maximum extent practical, inlet level delineations for the Linden, East Franklinton, and Adena Brook areas. In addition, an initial pass, yielding approximate delineations for the remainder of the Columbus service area has been completed. While this first pass is not a product for subsequent uses or summaries, it will provide the base for conducting the second pass at delineations throughout the service area which are expected to be of a reliable resolution and accuracy to use for planning and prioritization purposes at a small scale.

The City has identified several additional possible priority areas for which catchment delineations may be requested. In addition, several variables including classes of impervious surfaces, canopy cover and slopes may need to be summarized for each catchment. These priority areas and associated needs will be identified by the City in conjunction with Arcadis as the effort continues to develop during the upcoming years.

This effort is being undertaken with the understanding that priorities and emphasis my change. For the City, John Newsome is to be the point of contact and Robert Herr and Fang Cheng will assist in coordination with the delineations. Hazem Gheith with Arcadis will be the point of contact for Arcadis. The following sections describe in more detail the approach to this effort.

3.0 Technical Expertise

This urban watershed delineation project will be GIS-based, utilizing data provided by the City and developed by FSWCD. The GIS software to be used in this project will predominantly be ESRI's ArcMap package and associated ArcInfo level geoprocessing tools.

Core to FSWCD's current operations is the use of GIS and associated mapping, and core to this effort is the district's Geomatics program. FSWCD has made extensive use of GIS supported by eleven years of field data acquired by district staff using GPS dataloggers. This combination of customized, accurate field data, supplemented by substantial amounts of base data throughout Franklin County, is central for the day-to-day operations of the organization and has improved the services and products that the district is able to provide to the central Ohio community. The ability to use GIS has established ongoing partnerships, has allowed FSWCD to expand services, and further organizational goals by producing more comprehensive, accurate products.

Work directly related to urban watershed delineations include the following efforts developed and maintained by FSWCD: Stream Resource Mapping, Stream Resource Geodatabase and Urban SubH20shed (Subwatershed) Initiative.

- **Stream Resource Mapping**
  Initiated in 2001, FSWCD, in partnership with the City of Columbus and Franklin County Commissioners, started an effort to create a high-resolution dataset of surface drainage throughout Franklin County. This effort was predominantly completed in 2007 and resulted in over 1,600 miles of streams being walked by staff members and over 40,000 features identified, documented with pictures, and managed with a GIS.

Technical Expertise (continued)

- **Stream Resource GeoDatabase**
  Starting before the Stream Resource Mapping effort and continuing as an ongoing effort, a comprehensive database of surface water drainage and subsurface stormwater infrastructure is continually being updated and added to for the extents of Franklin County. Over the past 15 years, FSWCD has mapped almost all the surface drainage in the county, including previously unmapped headwater streams and outfalls into streams. This information has been reconciled with existing storm sewer data in most communities, including the City of Columbus. Features include an array of information including historical data and directionality of flow. This dataset consists of over 7,800 miles of drainage and over 301,000 features.

- **Urban SubH20shed (Subwatershed) Initiative**
  Franklin Soil and Water has developed a watershed coordinator program to oversee the development of projects within the Olentangy River and Big Walnut Creek (including Alum Creek, Blacklick and Rocky Fork) watersheds. Through the watershed coordinator program the Urban SubH20shed Initiative was conceived to develop a process to delineate urban watershed, and use the delineations to prioritize and better manage water quality projects

  The Urban SubH20shed Initiative is a Geodesign (GIS) based watershed management methodology that can be used to amend State approved watershed action plans, manage TMDL attainment goals, implement MS4 minimum control measures, employ balanced growth plan recommendations, and aid in completing community visions; prioritized watershed by prioritized watershed. Geodesign provides a design framework and supporting technology for professionals to leverage geographic information, resulting in mitigation plans and designs that more closely follow natural systems. Mitigation plans are expected to provide a comprehensive review of the watershed, its land use characteristics, watershed hydro-modifications, and to develop a strategy that will aid in assuring funding for application where projects with the highest ecological and economical cost- benefit can be pursued for implementation.

4.0 Proposed Staffing

FSWCD is prepared to continue this project upon execution of applicable contracts. FSWCD has a seasoned staff with many project staff members employed at FSWCD for over five years. FSWCD is a dynamic and flexible organization capable of engaging and managing additional staff if workload and available funding permit. For this urban subwatershed project, oversight and coordination of the project will be conducted by Josh Garver. Day-to-day planning and GIS desktop coordination will be conducted by Ryan Pilewski. Daily delineations and data creation will be conducted by Katie Phillips. Coordination of updating GIS layers for stormwater lines and surface drainage to be conducted by Jeff Pierce. Additional GIS support will be provided by Aaron Hebert.

Josh Garver, GISP, Assistant Director

Josh Garver is assistant director at FSWCD. Josh has been with FSWCD for six years where he has also been employed as the GIS natural resources specialist and member of the geomatics team. He provides technology guidance and support to staff, maintains GIS data layers, and is involved in a variety of projects providing GIS expertise and support. Josh also coordinates GIS-based projects with various Franklin County agencies and local municipalities, which focus on improving water quality and meeting requirements of the NPDES permit held by Franklin County and its townships. Josh has a Master's Certificate in GIS from North Carolina State University, a minor in City and Regional Planning from The Ohio State University and a BS in Landscape Architecture from The Ohio State University. Prior to joining FSWCD, Josh worked several years in landscape architecture and planning firms as a project landscape architect, designing and managing a variety of urban, park and GIS-centric projects.

Ryan Pilewski, MCRP, Watershed Coordinator

Ryan Pilewski is watershed coordinator and a member of the geomatics and conservation implementation team at FSWCD. Ryan works with local stakeholders on implementing watershed actions plans and Total Maximum Daily Load reports, including coordinating GIS-based projects with a focus on improving water quality. Ryan also works with municipalities on developing and implementing stormwater management plans as part of the NPDES Phase II permit. Ryan serves as Secretary of the Ohio Watershed Professionals Association and is an appointed member of Mayor Coleman's Green Team, sitting on the Growth & Development Working Group to assist with guiding efforts of Get Green Columbus. Ryan received a BS in Natural Resources Management with a specialization in open space planning from Slippery Rock University of Pennsylvania and a Masters in City and Regional Planning, specializing in watershed management from The Ohio State University. Prior to joining FSWCD, Ryan gained experience evaluating recreational lands with the National Forest Service within the Allegheny National Forest and providing planning and zoning compliance support at the City of Dublin,

Jeff Pierce, GIS Natural Resources Coordinator

Jeff Pierce is GIS natural resources coordinator and a member of the geomatics team at Franklin Soil and Water Conservation District. Jeff graduated from Wilmington College (OH) with a BA in English and Communications. He also holds a MS in Educational Leadership and a Master of Environmental Sciences in Applied Ecology and Resource Analysis from Miami University. Jeff has served as a past member of the NRCS statewide GIS committee, as the Chair of the Ohio Geographically Referenced Information Program's statewide hydrology committee, and as a voting member of the Heart of Ohio RC&D Council. He has been with FSWCD since 1995 and founded the first soil and water conservation district GIS program in Ohio.

Aaron Hebert, GIS Specialist

Aaron Hebert is GIS specialist and a member of the geomatics team at FSWCD, where his responsibilities include coordination with GIS staff in managing data related to current programs and projects. Aaron graduated from Western State College of Colorado, with a BA in history with a geography minor. He has also completed a GIS-certificate program at Columbus State Community College. Prior to joining FSWCD, Aaron interned with the Ohio Department of Natural Resources, editing land parcel data in eastern Ohio.

Katie Phillips, GIS Technician

Katie Phillips is a GIS technician and a member of the geomatics team at FSWCD, where her responsibilities lie predominantly with various aspects of the Columbus Watershed Delineation Project. She is assisting with the development and maintenance of district GIS data. Her emphasis is on developing urban subwatershed delineations within the county to be incorporated into the stormwater management initiative. Katie graduated from Bowling Green State University, with an MS in geology focused in hydrology and paleoclimate studies. Katie also received a BS in geology from Ashland University.

5.0 Primary Office Location

It is expected that all production work related to this project will be conducted on-site at the FSWCD office. Various meetings and coordination will take place with City and Arcadis staff as necessary at locations agreed to by both parties on an as-needed basis. To support the desktop production work, it is expected that occasional, but minimal, field investigations will be necessary. These investigations will be conducted by district staff and will be coordinated from the FSWCD office.

Franklin Soil and Water Conservation District
1404 Goodale Blvd., Suite 100
Columbus, Ohio 43212
(614) 486-9613
www.franklinswcd.org

Jennifer Fish, Director
Josh Garver, GISP, Assistant Director

6.0 Project Approach

The intent of this project is to develop urban watershed delineations with currently available data. The intent is not to create or otherwise locate additional data outside of what is addressed in this proposal, at least during the first year to two of this project. The bulk of the time and effort related to the watershed delineations will be spent in a GIS desktop capacity. The process will be an iterative process that will focus on deriving delineations by evaluating the relationship between surface elevations, the locations of inlet structures, the flow direction of surface water, and the flow within stormwater infrastructure. Surface elevations will be obtained through data layers provided by the City and the locations and flow direction of stormsewer components will be obtained from the Stream Resource Geodatabase (SRG) maintained by FSWCD as well as updates from the City.

It is our understanding that FSWCD will continue to work closely with Arcadis and the City throughout the delineation process. FSWCD will undertake broad-scale subwatershed delineations as the priority and will concurrently work on delineating smaller areas as needs are identified and requested by the City or Arcadis on behalf of the City.

“Subwatersheds” for the purpose of this project are defined as tributary systems with direct connection to a main drainageway (open drainage or stormsewer) by way of: 1. Open Channels as defined by the SRG and its linked stormwater components, and/or 2. captured systems as defined by the SRG as being part of a stormsewer drainage network and its linked stormwater components.

FSWCD will work on delineating smaller areas within each “subwatershed” as needs are identified and requested by the City, or by Arcadis on behalf of the City. These areas will be known as (largest area to smallest): 1. “Basin(s)” – tributary stormwater network(s) delineated from a confluence with a main stem of a drainageway; 2. “Catchment(s)” – tributary stormwater network(s) delineated from an inlet draining to a stormsewer or open drainage and draining to a main stem of a “basin”; and 3. “Inlet(s)” - delineated to project specific inlets to illustrate surface flow to an individual inlet or a specific grouping of inlets.

An interactive, collaborative team environment internal to FSWCD will be used for the delineations. The City and Arcadis will provide a quality control component to the delineations with feedback to FSWCD for revisions and refinements of the delineations. Open and timely dialogue between FSWCD, the City and Arcadis will be required to facilitate efficient production of the delineations.

The delineation of each of the various scales of watersheds will be completed in various phases/passes. The initial pass will involve a delineation based primarily off of surface elevations, and to some extent, stormwater infrastructure. This first pass will provide an estimated extent of a watershed. The second pass will refine the initial delineation to accurately take into account the stormsewer components and more precise placement of the delineation boundary based on DEM

values. In addition, it is expected that, while they may be identified in the first pass, that the second pass will clearly accommodate any cross-boundary drainage conditions (i.e. drainage coming from and completely surrounded by adjacent watersheds). It will not, however, make allowances for rooftop drainage. The third pass will make accommodations for rooftop drainage and any revisions and updates will accommodate new data and/or conditions clarified or field verified by the City and/or Arcadis staff.

See Exhibit 1: [First Pass Delineations and Priority Area Inlet Delineations] below for a graphic illustration of current efforts underway

The approach to this project will be adaptive with priorities, accommodations, and products reviewed, discussed and agreed to periodically by FSWCD, the City, and Arcadis. This project will be reviewed at least on an annual basis to assess the current state of the project, evaluate developing priorities and plan for further efforts. In addition to the larger project reviews, progress and delineation reviews will be conducted as outlines in section '6.1 Delineation Review' below.

6.1 Delineation Review

Planned, periodic updates on the delineations will continue to be provided to Arcadis and the City at least every three months. The intent of these updates will be to promote dialogue between Arcadis, the City and FSWCD and allow all parties to make needed adjustments in the process. The updates are to include:

A review of the delineations developed

The most recent GIS files of the delineations

Questions and concerns encountered during the delineation process which need addressed.

At this time, questions and concerns arising from the delineation process will continue to be tracked within a GIS feature class maintained by FSWCD. This feature class will designate the location of the question or concern by means of a point feature and will have associated notes in the attribute table elaborating on the situation encountered. This file will be reviewable by Arcadis and/or Columbus staff at the regularly scheduled meetings or as needed using their GIS. Comments from City staff will be logged in the attribute table and returned to FSWCD for use with the delineations.

In addition, it is expected that monthly project meetings with Arcadis and the City will continue to assist in establishing priorities and communication among the participants.

6.2 Primary Data for Deriving Watershed Delineations and Source

The following are the primary GIS layers planned for use in the urban watershed delineations. These data are currently available, are derived from currently available data and/or include data that may be provided as updates by the City or other local municipalities.

1' Contours (City)

Terrain model (City)

City stormwater infrastructure (City)

Stormwater infrastructure in county and surrounding municipalities (Stream Resource Geodatabase: FSWCD)

Digital Elevation Model (derived from terrain: FSWCD)

Building/Structure Layer (Auditor data; needs processing)

Most recent aerial photography (City/State)

Drainage mapping data and photos (FSWCD)

Digital copy of engineering plans (City)

Online aerial photography to assist in evaluating 'on the ground' conditions (Various)

*In addition, it is expected that survey data from the city will be available for priority areas for which the city will be implementing projects. Coordination with the City will be needed if any of this data is to be included in an attempt to refine the delineation of the watersheds, basins, catchments, and project areas based on priority inlets. Expected inclusions from this survey are: accurate locations of catch basins, rooftop drainage direction, and other elevation information which may affect the extent of delineations.

Overview Graphic of the Columbus Area Showing First Pass Delineations and Current Inlet Level Delineations for the Priority Areas of: Adena, Linden and East Franklinton

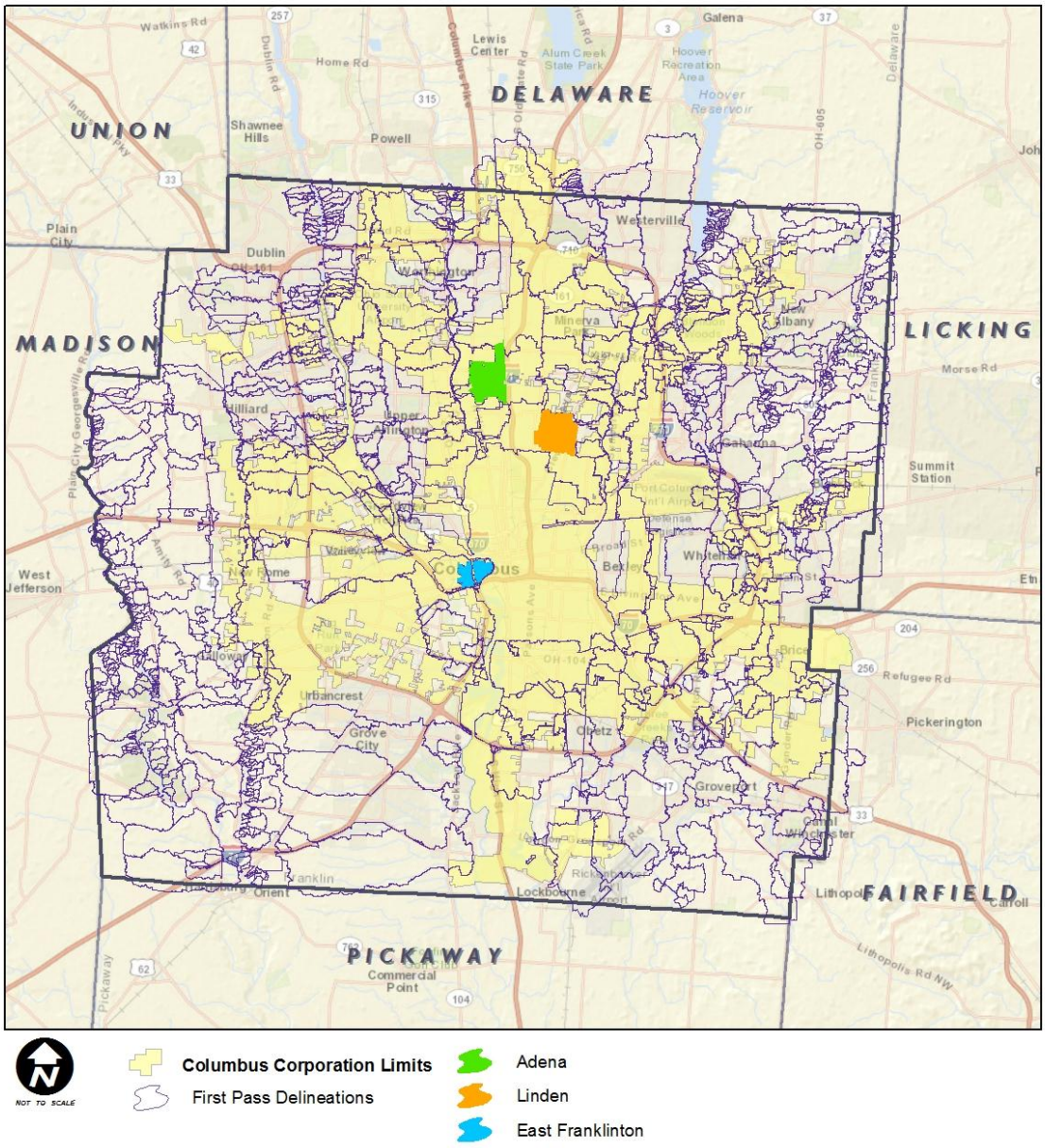

Exhibit 2: First Pass Delineations and Priority Area Inlet Delineations

6.3 Project Adaptation

This project is being undertaken in conjunction with the City exploring options for an integrated plan to comply with Ohio EPA permits. The current goal is for the City to develop an integrated plan by September 15, 2015. As such, this project is continuing with many parameters undefined. For this reason, the above mentioned delineation reviews are to play an important role in the development of this project as both FSWCD and the City refine the parameters of the project and better define the formatting of the resulting GIS data.

Currently, components expecting to be addressed as this project develops include:

The QA/QC process being defined by the City
The extent of the delineations
The size of the delineations and/or sub-delineations
Means of dealing with direct drainage to primary rivers and streams
Attributing of delineations

6.4 Project Constraints

It is anticipated that the primary constraining aspects of this project with respect to completing watershed delineations will be a lack of data, errant data, and incomplete data. Due to the nature of watersheds not corresponding to political boundaries, the accurate delineation of the watersheds will be limited by the availability and completeness of surface drainage and stormsewer infrastructure data. While the City and FSWCD maintain extensive stormwater datasets which will be used for the delineations, the watersheds will encompass areas outside of the Columbus service area and Franklin County. To the maximum extent practical, delineations will be completed with the data available and/or provided to FSWCD during the course of the project. The intent of this project is to develop urban watershed delineations with currently available data. The intent is not to create or otherwise locate additional data outside of what is addressed in this proposal. To this end, notation will be provided with each of the delineations describing known limitations and/or concerns with the delineations.

In addition to the lack and completeness of data, errors in existing data may cause inaccuracies in the delineations. Examples of these errors have been explored by all parties and their possible impacts have been noted and accepted as part of this project. Elevation data obtained from the City will be used to determine surface water flow direction. As such, the accuracy of the delineations will be directly tied to the accuracy of the elevation information received from the City. It is expected that occasional, but minimal, field verification of features will be undertaken by the City, Arcadis, or consulting firms when uncertainty during the desktop work is encountered to verify the existence of features and/or the direction of flow within the stormwater network. While field verification by FSWCD is not planned as part of the workflow, it is understood that the City will be developing a quality control component for this project which will involve field work in addition to the planned survey work.

An additional known barrier to accurate delineations involves multiple flow directions within the stormwater network and the inclusion of combined sewers, sewer overflows and current construction projects related to stormwater management. The primary known area of concern for these conditions is the downtown area of Columbus. This area will likely require more of a combined effort between City staff and FSWCD to arrive at agreed to delineations and will be addressed late in this process, if at all.

6.5 Data Format

All delineations and associated attribution will be provided to the City and Arcadis in ESRI's file geodatabase format. Upon request and in coordination with City staff, an overview exhibit will be produced and maintained for the watershed delineation project showing areas of completion, areas to be completed, areas of concern/interest, and additional supporting information relevant to the continuation and support of the project.

7.0 Stream Inventory and Assessment Outline

Introduction:

At the request of Columbus, Franklin Soil and Water Conservation District has been asked to provide an overview for conducting an inventory of open channel systems that will strategically aid in advancing BluePrint Columbus objectives and identifying areas for further investigation or study.

These stream inventories will take place in stream corridors and will be used to rapidly identify and rank areas of concern and the basis for that concern. Field inventory methods will provide baseline data about likely impairments, restoration potential, and acquire information such as location, linear feet, qualitative severity ranking, premise descriptors, threats, access ease, and notes needed to develop a desktop analysis of the area inventoried.

Below is an outline of the stream inventory and assessment approach. These components and criteria are to be reviewed by Columbus, or designated representatives, and approved prior to initiating the field work portion of the inventory.

Area to be Addressed:

Linden Pilot Area (Argyle-Woodland Run/ Rosemont Run)

Goal:

Rapidly record stream corridor conditions in the field with sub-meter GPS data collectors with predefined collection criteria, develop mapping in a GIS from the field data and associate pictures taken during the field investigation with features collected.

Inventory Objectives:

Provide post-development baseline conditions with respect to:

- Stream channel
- Riparian corridor conditions adjacent to the stream channel

Key Issues of Concern:

1. Is erosion active? Can we rank sites by condition level- Stable/Mild; Moderate; Severe?
2. Is infrastructure or property threatened?
3. Are there obvious changes in channel dynamics?
4. Is stream corridor intact – forested, native grasses, shrubs?
5. Is stream corridor free of or prevalent with riprap/gabion baskets/metal/concrete/levee or other modifications ?

Scope of Services:

D-1 Prescreening - Desktop GIS Analysis

D1.1. Divide waterway into (walkable) reaches and establish IDs

D1.2. Stream investigation (SI) – analysis of stream corridor for areas of concern/opportunities

D1.3. Perform a QA/QC check with Conservation Implementation Team

D1.4. Prepare maps for in-field site investigation outlining reaches, outfalls, erosion potential, and stream buffer canopy.

F-1 Field Investigation

F1.1. In-field investigation of stream corridor conditions.

F1.1.1. Detailed photographic and GPS inventory highlighting areas of concern and opportunity

F1.1.2. Supporting GIS documentation summarizing areas of concern

Conditions and criteria to be recorded during the stream inventory

Premise

- *Stream Erosion*
- *Impacted Buffer*
- *Channel Modification*
- *Stormwater Outfall*
- *Log Jam*
- *Pollution or Dumping*
- *Other*

Location

- *Left*
- *Right*
- *Other*

Linear Feature (records linear feet)

- *Start*
- *Stop*

Severity

- *Low (Stable to Mild)*
- *Medium (Moderate)*
- *High (Severe)*

Access

- *Good*
- *Fair*
- *Difficult*

Descriptions

- *Bank failure*
- *Bank undercutting*
- *Exposed riparian corridor (beyond banks)*
- *Deficient vegetation (on banks)*
- *Mowed to stream edge*
- *Compromised and/or dead tree(s)*
- *Bank armor (riprap, gabions, retaining walls, rock)*
- *Floodplain encroachment (fill, levee)*
- *Channelization (straightened, excavated)*
- *Concrete channel (lining)*
- *Changing stream dynamics (take note –aggrading, degrading or entrenched, widening, headcutting)*

Threat to Property/Infrastructure

- *Y*
- *N*

Notes

- *Additional observations or clarifications*

D-2 Fieldwork Database Assembly

D2.1. Processing of GPS data, photos, and symbolization into GIS mapping/MXD.

Deliverables:

1. Photo inventory of field conditions of concern and areas of opportunity. This data will be linked to corresponding features within the GIS and may also be viewed independently.

2. GIS based database coupled with map files highlighting in-stream conditions

Responsibilities:

1. Franklin Soil and Water Conservation District:

The district will utilize current in-house resources to plan, conduct and evaluate the inventory. The following will contribute to this process:

Conservation Implementation Team

Watershed Coordinator

Urban/Habitat Conservationist

GIS Specialist

Franklin Soil and Water will provide:

- Deliverables
- Assistance in notification of streamside landowners if desired by Columbus (compile parcel addresses and develop notification template)

2. City of Columbus

- Review and approval of conditions to map and describe during the inventory of stream channel
- Mailing of notifications and educational material, if desired, prior to the stream inventory

Addendum:

At the time of the writing of this proposal, the Linden area defined above is the only area being considered for this stream inventory process. If the City determines that additional inventories are needed, additional scoping and fees are to be discussed and agreed upon prior to commencement of additional stream inventories.

8.0 Intergovernmental Working Agreement

This working agreement is between the City of Columbus (City) and Franklin Soil and Water Conservation District (FSWCD). This agreement is effective upon execution by the City and terminates on March 31, 2015. This agreement is subject to the limitations of authorities, resources and policies of FSWCD and the City.

FSWCD is a government service agency that is funded by local government grants and state matching funds for the purpose of meeting local soil and water conservation needs. For the services described herein, Columbus shall compensate FSWCD in the form of a working agreement in the amount of $211,000.00. FSWCD reserves the rights to expend these funds as needed to meet service agreements, overhead, and general program costs. While amounts shown are calculated off of anticipated assistance needed, compensation is not intended to be a fee for service arrangement. Additional services may be provided upon review of available needs, funding and resources.

It is Mutually Agreed:

That FSWCD is a conservation, technical and education service agency and therefore is not granted regulatory authority in the Ohio Revised Code.

That the working relationship will be defined to include lines of communications with appropriate departments.

That the City and FSWCD will meet when necessary to review and coordinate activities with the aim of developing a multi-discipline approach to resource management.

That all parties will review quality of service and address concerns as they arise and at least every three months.

That this working agreement may be amended or terminated at any time by mutual consent, or the agreement may be terminated by either party giving sixty (60) days notice in writing to the other.

Urban Watershed Delineations for the City of Columbus: 2014		
Project	**Time Frame**	**Working Agreement Amount**
Undertake urban watershed delineations for the City of Columbus as described herein.	Through March 31, 2015	**$211,000.00**