ERIE COUNTY WATER AUTHORITY
AUTHORIZATION FORM
For Approval/Execution of Documents
(check which apply)

Contract: LA-003   **Project No.:** 202000202
Project Description: Geographic Information Systems (GIS)
_____

Item Description:

[ ] Agreement   [X] Professional Service Contract   [ ] Amendment   [ ] Change Order
[ ] BCD   [ ] NYSDOT Agreement   [ ] Contract Documents   [ ] Addendum
[ ] Recommendation for Award of Contract   [ ] Recommendation to Reject Bids
[ ] Request for Proposals
[ ] Other _____

Action Requested:

[X] Board Authorization to Execute   [X] Legal Approval
[ ] Board Authorization to Award   [X] Execution by the Chairman
[ ] Board Authorization to Advertise for Bids   [ ] Execution by the Secretary to the Authority
[ ] Board Authorization to Solicit Request for Proposals
[ ] Other _____

Approvals Needed:
APPROVED AS TO CONTENT:

			Date
[X]	Acting Manager of IT	_signature_	8/19/2020
[X]	Chief Operating Officer	_signature_	8/19/2020
[X]	Executive Engineer	_signature_	08/19/2020
[X]	Director of Administration	_signature_	08/19/2020
[X]	Risk Manager	Molley Jo Musarra	08/19/2020
[X]	Chief Financial Officer	Karen A. Prendgast	08/19/2020
[X]	Legal	Margaret A. Murphy	08/19/2020

APPROVED FOR BOARD RESOLUTION:

			Date
[X]	Secretary to the Authority	_signature_	08/19/2020

Remarks: _____
_____

Resolution Date: _____   **Item No:** _____

ERIE COUNTY WATER AUTHORITY
INTEROFFICE MEMORANDUM

August 18, 2020

To: Terrance D. McCracken, Secretary to the Authority

From: Jeffrey C. Schlierf, Acting Manager of Information Technology

Subject: Professional Service Agreement for Geographic Information Systems (GIS)
         LaBella Associates
         ECWA Project No. 202000202
         Contract No. LA-003

The following material is attached:

- Blue Authorization Form indicating the requested Board action and approvals needed.
- Professional Service Contract for the above referenced project with LaBella Associates, for execution by the Chairman.
- Copy of Interoffice Memorandum from Jeffrey C. Schlierf, Acting Manager of Information Technology dated June 22, 2020 detailing the recommendation to enter into an agreement with LaBella Associates after review of Request for Proposals (PN 202000136)

The project will consist of providing technical support for the Authority's GIS system on an as needed basis. The project will involve the following tasks:
- Administrative and Staff Training Functions
- Application Development
- GIS Integration with Other Authority Systems
- Software Support

The consultant shall be paid an hourly rate according to the rates contained within the Professional Services Contract. The total not to exceed fee for this contract is $250,000.00. Funds for this project are included in the 2020 Operating and Maintenance Budget under 8525 Information Technology, Account 19 – Payments to Contractors – Other.

The contract will run from September 1, 2020 through August 31, 2023. The Authority has the option (at its sole discretion) to extend the contract for 1 year – through August 31, 2024.

JCS:MJM:jmf
Attachment
cc: K. Prendergast
     R. Stoll
     L. Kowalski
     L. Lester
     CONT-LA-003-2020

P:\CONT\P202000202\01 Prof Svc Cont\2020-08-18 Memo Agreement.docx

ERIE COUNTY WATER AUTHORITY
INTEROFFICE MEMORANDUM

June 22, 2020

To: Terrence D. McCracken, Secretary to the Authority

From: Jeffrey Schlierf, Acting Manager of Information Technology

Subject: Request for Proposal
          Geographic Information Systems (GIS)
          Project No. 202000136

The Erie County Water Authority (ECWA) recently issued a Request for Proposal (RFP) for the Geographic Information System (GIS) technical support consulting services. This project will involve various tasks that include (but are not limited to):

- Administrative and staffing functions,
- Application development,
- Integration with other systems (AVL, CityWorks, systems operating on IBM Power System, and other Authority's systems and databases),
- Software support.
- Provide GIS expertise on potential tool development, idea assessment, and provide comments as requested regarding future development of ECWA GIS systems.
- Keep up to date with industry trends and advise ECWA management.

RFPs were issued to five consultants: Bergmann Associates, Fisher Associates, Ecology and Environment, Inc., LaBella Associates and Wendel Companies. The RFP was posted to the Authority website as well. Three other firms Next Generation Spatial Solutions Inc., Geocove, Inc., and geographIT obtained the RFP through our website. In the end, four firms (Bergman Associates, Fisher Associates, LaBella Associates, and GeoCove) chose to submit proposals for this project. This is a single project requiring one consulting firm.

The proposals were reviewed and discussed among the Authority's staff (Terry McCracken, Russell Stoll Len Kowalski, Jeffrey Schlierf, and Michael McAuley). Experience, staffing, scope and project approach were considered. It was determined that each firm possessed the basic relevant qualifications to perform the work proposed.

LaBella provided an experienced project team to perform the work and demonstrated ample relevant experience with similar type of projects. Their team, approach and level of effort showed an understanding of the necessary project process and workflow for all of the required tasks in this RFP.

If there are no objections, the IT Department plans on moving forward with negotiations with LaBella to develop a Professional Services Contract for the referenced project. In my absence, Russ Stoll will present during the Staff portion of the July 2, 2020 Board Meeting.

JS:jmf
cc: K.Prendergast
      R.Stoll
      L.Kowalski
      M.McAuley
      L.Lester
      ECWA-333-2001

PROFESSIONAL SERVICES AGREEMENT
FOR GIS TECHNICAL SUPPORT CONSULTING SERVICES

This is an Agreement effective as of August 27, 2020 ("Effective Date") by and between

ERIE COUNTY WATER AUTHORITY
295 Main Street, Room 350
Buffalo, New York 14203

hereinafter referred to as the "Authority," and

LABELLA ASSOCIATES
300 Pearl Street, Suite 130
Buffalo, New York 14202

hereinafter referred to as the "Consultant."

The Authority seeks to enter into a contract for consulting services for technical support of its Geographic Information System ("GIS") upon the terms and conditions stated in this Agreement.

In consideration of the mutual promises set forth in this Agreement, the Authority and the Consultant agree as follows:

ARTICLE 1 – CONSULTANT SERVICES

1.01   *Standard of Performance:*

A.   *Standard of Care:* The Consultant shall perform its services under this Agreement in a skillful and competent manner in accordance with the standard of care ordinarily practiced by members of the subject profession under similar circumstances at the time and in the same locality.

B.   *Technical Accuracy:* The Authority shall not be responsible for discovering deficiencies in the technical accuracy of the Consultant's services. The Consultant shall correct deficiencies in technical accuracy without additional compensation, unless such corrective action is directly attributable to deficiencies in Authority-furnished information.

1.02   _Scope of Services:_

A.   The Authority and the Consultant will identify and quantify the tasks and activities undertaken under this Agreement prior to executing the work and billing the Authority, in the manner described as follows:

1.   The Secretary of the Authority (the "Secretary") and the Authority's Executive Engineer will monitor and oversee the tasks and activities being performed by the Consultant pursuant to this Agreement. The GIS Analyst must have the approval of the Secretary or the Executive Engineer before a task or assignment may be given to the Consultant or its personnel.

2.   Before the task or assignment is undertaken, the Consultant may be required to estimate time (broken down by title) and expenses to complete the work. Under such circumstances, no work should proceed until the Secretary or the Executive Engineer has approved the estimate after consulting with the GIS Analyst or other Division or Department Heads.

3.   The GIS Analyst has the authority to assign short tasks or assignments to the Consultant and its personnel if the work can be completed within 2 hours.

4.   The Consultant will keep the GIS Analyst updated on all deliverable tasks and assignments. Before any task or assignment exceeds the estimated time or expenses, the Consultant will advise the GIS Analyst, the Secretary and the Executive Engineer revising the original estimate for time and expenses to complete the work. The approval of the Secretary or the Executive Engineer is necessary before the Consultant can invoice the Authority for additional time and/or expenses.

5.   All deliverable tasks and assignments must be tested and reviewed by the GIS Analyst prior to acceptance of such work by the Secretary and/or the Executive Engineer.

6.   The Consultant will only bill for actual time and expenses.

    a.   The Consultant's invoice must identify the task or assignment by project name and project number, except for short tasks or assignments.

    b.   For short tasks or assignments, the Consultant shall provide a short description on the invoice.

B.   The Consultant agrees and represents it will provide services related to the technical support of the Authority GIS system for <u>Administrative and Staff Training Functions</u>, including, but not limited to:

1.   *Monthly GIS Group Meetings*

a.   The Authority's Manager or Acting Manager of Data Processing ("IT Manager"), GIS Analyst and such other appropriate Authority personnel will meet monthly with the Consultant to discuss the status of pending GIS projects, as well as anticipated upcoming projects and future upgrades to the Authority's GIS systems.

b.   The parties agree such meetings will be held at the Authority's Service Center, except as otherwise dictated by the Authority's Declaration of Emergency issued in response to the COVID-19 pandemic (the "Declaration").

c.   If meetings cannot take place at the Service Center in accordance with the Declaration, the parties will mutually agree to use other means to conduct such monthly meetings, including video or phone conferences.

d.   Whenever the Consultant or its employees are on-site at one of the Authority's offices or facilities, they will be subject to the provisions set forth in §§ 1.03 and 1.05 of this Agreement, as well as the provisions of the Declaration.

e.   The Consultant may obtain a copy of the [Declaration](#) from the Authority's website.

2.   *Emergency Backup Protocols*

a.   The Consultant will review the Authority's emergency backup protocols as it pertains to the GIS system and make recommendations for updates or revisions.

b.   After consulting with the Authority's GIS Group, the Consultant will accept such assignments relating to updating and revising the emergency backup protocols, as may be directed and assigned by the Authority.

c.   The Consultant agrees all services provided under this Agreement must be consistent with the Authority's current emergency backup protocols.

3. ***On-Site Training***

    a. Consultant will provide on-site training at the Authority's Service Center relating to the use and application of the Authority's GIS system, as requested by the IT Manager or GIS Analyst.

    b. The IT Manager or GIS Analyst will designate the topics to discussed at these on-site training sessions and the individuals who would be subject to such training, including training for new employees or training to existing employees.

        i. Such topics may include initial training on the GIS system and custom Authority GIS tools, courses to refresh and improve Authority personnel's use of the GIS system, or specific training on updates to the GIS system.

    c. Whenever the Consultant or its employees are conducting on-site training, they will be subject to the provisions set forth in §§ 1.03 and 1.05 of this Agreement, as well as the provisions of the Declaration.

4. ***Industry Standards, Trends & Training***

    a. The Consultant will stay up to date on GIS industry trends, new technology, and upcoming conferences on GIS topics at the local, national and international level.

    b. The Consultant will advise the Authority regarding such trends, technology, and details of upcoming conference topics at the GIS monthly group meeting.

5. ***Printing Large Format Documents***

    a. The Consultant must have the ability to generate, plot and print (or prepare for printing to a third-party vendor) large format documents, as needed on demand.

    b. The parties agree the charges for such services will be mutually agreed upon at the time of such service is demanded and subject to the provisions of Article 2 of this Agreement.

C. The Consultant agrees and represents it will provide services related to the technical support of the Authority GIS system, in conjunction with the Authority's Information Technology Department, for <u>Application Development</u>, including, but not limited to:

1.   The Consultant agrees to provide programming support and maintenance of the ArcGIS Desktop applications including the ECWA Toolbar and Edit Tool.

2.   The Consultant agrees to provide programming support and maintenance of the "Nightly Download" SDE process which serves as a geodatabase conversion tool. The Consultant agrees to provide programming support to assist in the integration of the Authority's IBM Power System data and CityWorks data into the GIS system as the "Nightly Download" process runs.

3.   The Consultant agrees to provide programming support for maintenance of and enhancements to the Authority's web mapping applications that provide access to the Authority's GIS data to the Authority's GIS users.

4.   The Consultant agrees to provide programming support to develop increased mobile accessibility to the GIS system and to develop mobile collection of data for the GIS system.

5.   Based on developments in the GIS and water industries, the Authority may request additional programming support for the development of new tools and enhancement to the GIS system.

6.   The Consultant may provide the programming support functions as set forth in paragraphs 1 through 5 of this subsection on-site at the Authority's Service Center. Whenever the Consultant or its employees are providing on-site programming support, they will be subject to the provisions set forth in §§ 1.03 and 1.05 of this Agreement, as well as the provisions of the Declaration.

D.   The Consultant agrees and represents it will provide technical and programing support for Integration of the GIS System with Other Authority Systems including, but not limited to the IBM Power System, which includes financial data, customer information data, meter reading data and work order data; the CityWorks Work Order system; Automatic Vehicle Location data; Distribution System Pressure Monitoring Device data; SCADA data; and additional Authority systems and databases.

E.   The Consultant agrees and represents it will provide Software Support including installation of, upgrades to, and updates to Authority GIS software, including, but not limited to ArcGIS Desktop 10.x and newer versions; ArcGIS Server 10.x and newer versions; ESRI software; and Seon vMax Compass Logistics. The Consultant agrees to provide assistance in migrating the Authority's GIS System from ArcGIS to ArcGIS Pro, if requested by the Authority's Information Technology Department.

F.   The Consultant agrees and represents it will provide services related to the technical support of the Authority GIS system including additional consulting services, as requested, including but not limited to providing GIS expertise on potential tool development and idea assessment, providing comments regarding development of future Authority GIS systems, and advising Authority management on current GIS industry trends.

1.03   _Access to Authority Property_:

A.   The Consultant must notify the Authority's Security Officer and provide government-issued photo identification for all employees retained by the Consultant who will be working on-site at one of the Authority's facilities and any additional information reasonably requested by the Authority's Security Officer.

B.   The Security Officer will issue security passes to the Consultant's employees assigned to work on-site at one of the Authority's facilities, allowing entrance to such Authority facility subject to the same conditions as an Authority employee.

C.   No person may visit any Authority property without the authorization of the Authority and/or its Security Officer.

1.04   _Compliance with Laws and Regulations, and Policies and Procedures_

A.   The Authority and the Consultant shall comply with all applicable federal, state or local laws and regulations and all applicable Authority policies and procedures.

B.   The Consultant shall comply with the provisions set forth in Public Authorities Law §§ 2875, 2876, and 2878 of the laws of the State of New York. In response to the Authority's Request for Proposals, the Consultant submitted and signed Forms A, B, and C, a copy of which is attached to, and incorporated in, this Agreement as Appendix A.

C.   By executing this Agreement, the Consultant affirms under the penalties of perjury that there was no collusion in the proposal submitted to the Authority, upon which forms the basis of this Agreement.

D.   The Consultant shall comply with the provisions of State Finance Law § 139-L of the laws of the State of New York. In response to the Authority's Request for Proposals, the Consultant submitted and signed the Sexual Harassment Bidding Certification, a copy of which is attached to, and incorporated in, this Agreement, as Appendix A.

E.   The Consultant shall comply with the provisions of the Shield Act, codified at General Business Law § 899-aa of the laws of the State of New York.

F.   The Authority shall provide the Consultant in writing any and all Authority policies and procedures applicable to the Consultant's performance of services under this Agreement. The Consultant agrees to comply with such policies and procedures to the extent compliance is not inconsistent with professional practice requirements.

1.05   *Health Screening Questionnaire:*   The State of New York (the "State") has declared a state of emergency due to the COVID-19 pandemic. The Authority is currently operating under a Declaration of Emergency.   While the Authority continues to operate under the Declaration of Emergency, the Consultant, its employees, and agents shall comply with all health safety rules and regulations adopted by the State or the Authority including, but not limited to, completing a health screening questionnaire before entering any Authority worksite.

1.06   *Unknown Conditions*:   The Consultant shall not be required to sign any documents, no matter by whom requested, that would result in the Consultant having to certify, guarantee, or warrant the existence of conditions whose existence the Consultant cannot ascertain. The Authority agrees not to make resolution of any dispute with the Consultant for payment on any amount due to the Consultant in any way contingent upon the Consultant signing any such documents.

ARTICLE 2 – PAYMENT OF PROFESSIONAL SERVICES

2.01   The Consultant shall submit monthly invoices to the Authority, detailing the hours and description of the services rendered to the Authority, as well as expenses incurred, in a form acceptable to the Authority's Chief Financial Officer and/or Comptroller. The Consultant will be responsible for completing all work covered by this Agreement.

2.02   Costs for the services provided under this Agreement shall be billed at the following hourly rates:

Project Manager	$125.00
Senior GIS Programmer	$125.00
GIS Programmer	$118.00
GIS Analyst	$80.00
GIS Technician	$65.00
GIS Intern	$40.00

2.03   The Consultant shall keep accurate records and books of all disbursements, or expenses made or incurred by the Consultant pursuant to the services provided under this Agreement.

A.   Payments for services will be based on detailed actual hours worked with a total cost not to exceed $250,000.00.

B.   The Consultant shall seek pre-approval from the Secretary or the Executive Engineer and the Chief Financial Officer for disbursements or expenses expected to exceed $500.00.   Expenses will be reimbursed upon presentation of paid receipts with a total cost not to exceed $5,000.00.

2.04 The Authority reserves the right to audit the Consultant's records to verify bills submitted and representations made. For this purpose, the Consultant agrees to make company records available for inspection upon written notice by the Authority. The Authority shall have two years from the date of the Consultant's final bill to complete its audit. If the audit establishes an overcharge, the Consultant agrees to refund the excess.

ARTICLE 3 – GENERAL PROVISIONS

3.01 *Subcontract and Assignments*: The Consultant may not subcontract or delegate any of the work, services, and/or other obligations of the Consultant without the express written consent of the Authority. The Authority and the Consultant bind themselves and their successors, administrators and assigns to the terms of this Agreement. The Consultant shall not assign, sublet or transfer its interest in the Agreement without the written consent of the Authority.

3.02 *Amendments*: No modification or variation from the terms of this Agreement shall be effective unless it is in writing and authorized by a resolution of the Board of Commissioners of the Authority and signed by all parties.

3.03 *Right to Terminate*: The Authority reserves the right to terminate the Consultant's services at any time, without cause, based on seven (7) days' written notice. The Consultant shall not be entitled to lost profit and shall perform only such services, after notification of termination, as the Authority directs.

3.04 *Indemnification*:

    A.   To the fullest extent permitted by law, the Consultant agrees to indemnify and hold the Authority harmless from all third party claims, liabilities, damages and costs (including all reasonable attorney's fees, and cost of defense) to which the Authority, its officers, directors and employees may be subject to, arising out of the death or bodily injury to any person or the destruction or damage to any property to the extent caused by the negligent acts, errors or omissions, or willful misconduct of the Consultant's performance of professional services provided under this Agreement and those of its subcontractors or anyone for whom the Consultant is legally liable.

    B.   To the fullest extent permitted by law, the Authority agrees to indemnify and hold the Consultant harmless from all third party claims, liabilities, damages and costs (including all reasonable attorney's fees and cost of defense) to the extent caused by the negligent acts, errors or omissions of the Authority, its contractors, engineers, or anyone for whom the Authority is legally liable.

3.05 *Confidential Information*:

    A.   In order to assist the Consultant in the performance of this Agreement, the Authority may provide the Consultant with confidential information including, but not limited to information relative to the services to be performed. All information received by the Consultant in any fashion and under any conditions resulting from the rendering of the services in consideration of this agreement, are considered

confidential. The Consultant shall hold in confidence and not disclose to any person or any entity, any information regarding information learned during the performance of services including but not limited to information relative to the services to be performed.

B.   The Consultant shall use at least the same degree of care to protect and prevent unauthorized disclosure of any confidential information as it would use to protect and prevent unauthorized disclosure of its own proprietary information. The Consultant shall use confidential information only in the performance of this Agreement. No other use of the confidential information whether for the Consultant's benefit or for the benefit of others shall be permitted.

C.   In no event is the Consultant authorized to disclose confidential information without the prior written approval of the Authority. The Consultant may provide such information to its subcontractors for the purpose of performing the services; or disclose such information, with notice to the Authority, if such information is required to be disclosed by law or court order.

D.   The terms of this section shall be binding during and subsequent to the expiration or termination of this Agreement.

3.06   *Insurance*: The Consultant shall secure and maintain such insurance as will protect itself from claims under the Workers' Compensation Act; claims for damages because of bodily injury, including personal injury, sickness or disease, or death of any of its employees or of any person other than its employees; and from claims for damages because of injury to or destruction of property including loss of use resulting therefrom in the amounts indicated on Appendix B. The Consultant shall provide and maintain insurance that will provide coverage for claims arising out of the negligent performance of its services. The Consultant shall provide Certificates of Insurance certifying the coverage required by this provision.

3.07   *Copyrights, Trademarks and Licensing*:

A.   All materials produced under this Agreement, whether produced by the Consultant alone or with others, and regardless of whether produced during regular working hours, shall be considered work made for hire and the property of the Authority. The Consultant shall, during and subsequent to the terms of this Agreement, assign to the Authority, without further consideration, all right, title and interest in all material produced under this Agreement. All material produced under this Agreement shall be and remain the property of the Authority whether registered or not.

B.   In performing work under this Agreement, the Consultant may be granted access to the Authority's GIS data, documents, and other information. The Consultant understands and agrees that the use of such data, documentation and information shall be treated as confidential information and the Consultant shall abide by the terms and conditions of the Confidentiality and Copyright Licensing Agreement, attached and incorporated in this Agreement as Appendix C.

3.08   *New York Law and Jurisdiction***:** Notwithstanding any other provision of this Agreement, any dispute concerning any question of fact or law arising under this Agreement which is not disposed of by agreement between the Consultant and the Authority shall be governed, interpreted and decided by a court of competent jurisdiction of the State of New York in accordance with the laws of the State of New York.

3.09   *Conflicts of Interest***:** The Consultant represents that it has advised the Authority in writing prior to the date of signing this Agreement of any relationships with third parties, including competitors of the Authority, which would present a conflict of interest with the rendering of the services, or which would prevent the Consultant from carrying out the terms of this Agreement or which would present a significant opportunity for the disclosure of confidential information. The Consultant will advise the Authority of any such relationships that arise during the term of this Agreement. The Authority shall then have the option to terminate the Agreement without being subject to further obligations under its terms, except for the payment of services already rendered by the Consultant. So long as the Consultant reports such a conflict as required by this section, the Consultant will have no further obligations for completing the scope of services under the terms of this Agreement.

3.10   *Additional Conditions***:** The Consultant and the Authority acknowledge that there may be additional conditions, terms and provisions which shall apply specifically to the services to be performed. The parties agree to negotiate in good faith to agree upon such additional terms.

3.11   *Entire Agreement***:** This Agreement constitutes the entire understanding of the parties and no representations or agreements, oral or written, made prior to its execution shall vary or modify the terms herein. This Agreement supersedes all prior contemporaneous communications, representations, or agreements, whether oral or written with respect to the subject matter hereof and has been induced by no representations, statements or agreements other than those herein expressed. No subsequent agreement made between the parties shall be binding on either party unless reduced to writing and signed by an authorized officer of the party sought to be bound by such agreement.

3.12   *Independent Status*:

A.   Nothing contained in the Agreement shall be construed to render either the Authority or the Consultant, an owner, member, officer, partner, employee or agent of the other, nor shall either party have authority to bind the other in any manner, other than as set forth in this Agreement, it being intended that the Consultant shall remain an independent contractor responsible for its own actions. The Consultant is retained by the Authority only for the purpose and to the extent set forth in this Agreement.

B.   The Consultant is free to choose the aggregate number of hours worked and the scheduling of such hours as it shall see fit at its discretion within the limitations set forth in Article 4.

C.   Neither the Consultant nor its employees shall be considered under the provisions of this Agreement or otherwise as having an employee, servant or agency status or

as being entitled to participate in any plans, arrangements or distributions of the Authority.

D.   In providing the services under this Agreement, the Consultant represents and warrants that it has complied with all applicable federal, state and local laws particularly with respect to licenses, withholdings, reporting and payment of taxes. The Consultant agrees to furnish copies of documentation to the Authority evidencing its compliance with such laws. The Consultant further represents and warrants that any income accruing to the Consultant and its employees from the Agreement shall be reported as such to the appropriate taxation authorities.

3.13 *__Doing Business Status__*: The Consultant represents it is qualified to do business in the State of New York and has registered with the New York Secretary of State.

3.14 *__Force Majeure__*: Consultant shall not be liable to the Authority for any failure to perform the Services if any such failure is caused by forces beyond Consultant's reasonable control, including without limitation, actions or inactions of any governmental agencies, changes in law, strikes, lockouts, or other industrial disturbances, acts or omissions of third-parties, civil disturbances, fires, floods, earthquakes, acts of God, acts of a public enemy or terrorism, epidemics or pandemics, including issues arising out of the COVID-19 pandemic, which may include without limitation, workforce shortages, lack of necessary supplies or Personal Protective Equipment, travel restrictions, and other restrictions resulting from public guidance and emergency orders.

3.15 *__Gratuities__***:** The Consultant shall prohibit its agents, employees and consultants from using their positions for personal financial gain, or from accepting any personal advantage from anyone under circumstances which might reasonably be interpreted as an attempt to influence the recipients in the conduct of their official duties. The Consultant or its employees shall not, under circumstances which might be reasonably interpreted as an attempt to influence the recipients in the conduct of their duties, extend any gratuity or special favor to employees of the Authority.

3.16 *__Notice__:* Any notices required by this Agreement or otherwise shall be delivered by United States Postal mail or personal delivery upon the addresses hereinbefore stated. Any change in such addresses shall be required to be in writing to the other party and acknowledged as such.

ARTICLE 4 – SEVERABILITY

4.01 Any provision or part of the Agreement held to be void or unenforceable by a court of competent jurisdiction shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon the parties, which agrees that the Agreement shall be reformed to replace such stricken provisions or part thereof with a valid enforceable provision that comes as close as possible to expressing the intent of the stricken provision. The validity and enforceability of all other provisions of this Agreement shall not otherwise be affected.

ARTICLE 5 – DURATION

5.01 All services to be provided under this Agreement shall be provided over a three-year period from September 1, 2020 through August 31, 2023 with one potential one-year extension, at the sole discretion of the Authority, at mutually agreed upon terms.

5.02   The Authority reserves the right to terminate this Agreement in the event it is found that the Certification filed by the Consultant in accordance with New York State Finance Law §139-k was intentionally false or intentionally incomplete. Upon such finding, the Authority may exercise its termination right by providing written notification to the Consultant in accordance with the written notification terms of this Agreement.

<div align="right">

ERIE COUNTY WATER AUTHORITY

By_____
Jerome D. Schad, Chair

LABELLA ASSOCIATES

By_____
Timothy M. Webber, P.E., Vice President

</div>

STATE OF NEW YORK   )
COUNTY OF ERIE   ) ss:

On the _____ day of _____, in the year 2020, before me personally came Jerome D. Schad, to me known, who, being by me duly sworn, did depose and say that he resides in Amherst, New York, that he is the Chair of the Board of Commissioners for the Erie County Water Authority described in the above instrument; and that he signed his name thereto by order of the Board of Commissioners.

_____
Notary Public

STATE OF NEW YORK   )
COUNTY OF ERIE   ) ss:

On the _____ day of _____, in the year 2020, before me personally came Timothy M. Webber, P.E., to me known, who, being by me duly sworn, did depose and say that he resides in _____, New York, that he is the Vice President of the Corporation described in the above instrument; and that he signed his name thereto by order of the Board of Directors of said Corporation.

_____
                   Notary Public

APPENDIX A

CONSULTANT'S PROPOSAL

Prepared For:
Mr. Jeffrey Schlierf
Acting Manager of Information
Technology
Erie County Water Authority
3030 Union Road
Cheektowaga, NY 14227

Submitted by:
LaBella Associates
Rebecca Smith, GISP
Greg Coniglio, GISP, PMP
Data Intelligence Group Co-Leads
300 Pearl Street
Suite 130
Buffalo, NY 14202

LaBella
Powered by partnership.

Proposal for GIS Technical Support Consulting Services

ECWA PROJECT NO. 202000136

JUNE 12, 2020

Page 14 of 93

June 12, 2020

Mr. Jeffrey Schlierf
Acting Manager of Information Technology
Erie County Water Authority
3030 Union Road, Cheektowaga, New York 14227

RE: Letter of Introduction: GIS Technical Support Consulting Services (ECWA Project No. 202000136)

Dear Mr. Schlierf,

LaBella Associates is pleased to submit the following proposal to provide GIS consulting services to the Erie County Water Authority. The team that we have assembled to support your project boasts a combined **44 years of experience with the Authority**, and are deeply committed and personally invested in the success and advancement of ECWA's GIS program. You will be our priority. Having worked closely with ECWA for decades, we understand the Authority's mission is to provide its customers with a plentiful supply of safe, high quality, affordable drinking water through a reliable infrastructure. We look forward to the opportunity to help achieve this through the use of GIS and other associated technologies. LaBella's Data Intelligence Group offers:

- **Extensive History and Deep Technical Knowledge:** Having previously worked alongside ECWA to help implement, deploy, and advance their GIS program, we have a deep understanding of the existing needs, databases, applications, and systems that are in place. **Rebecca Smith, GISP** will guide our team. She has more than 15 years of technical experience and has managed GIS projects since 2012, including managing the ECWA GIS contract from 2017-2019. **Matthew Malinowski, Senior GIS Programmer**, designed and developed the applications that are discussed in the RFP, and will be able to seamlessly and immediately contribute to the maintenance and advancement of these tools. Our team will continue to draw from the institutional knowledge of Project Director and Technical Advisor, **Greg Coniglio, GISP, PMP**, who also will be regularly involved. Our unique combination of deep experience and strong technical expertise will allow us to begin adding value right away. We believe that no other team can offer this depth of understanding of your requirements.

- **Forward Focused:** Technology is constantly evolving. It is both our job and our passion to stay on top of the latest technology and innovation trends. We have a diverse and creative team that prides itself on achieving the impossible. In addition to our **experienced 6-member GIS team, LaBella Associates also offers a breadth of diverse services, including professional engineering and design services, lead in drinking water study expertise, hydraulic modeling expertise, and in-house Water Environment experts** that we can draw from. Our forward focus is a main reason that we've named our group "Data Intelligence". While GIS has always been and continues to be the group's focus, the "DIG" name demonstrates our commitment to providing all of the latest innovative technology to our clients, even if not using the more traditionally GIS based solutions. "Data sciences", such as data analysis and visualization are perhaps the best example of this. We are forward thinkers by nature and will continue to seek out opportunities to introduce new and imaginative ideas to help advance ECWA's mission.

300 Pearl Street, Suite 130 | Buffalo, NY 14202 | p (716) 551-6281 | f (716) 551-6282
www.labellapc.com
Page 15 of 93

- **Team Leadership:** LaBella's Data Intelligence Group is co-led by Rebecca Smith, GISP, and Greg Coniglio, GISP, PMP. Rebecca and Greg have collaborated successfully on project leadership, business development, and group leadership for the past decade. They also were recently invited to collaboratively write an article for American City and County Magazine, titled "From Cholera to COVID-19, "The Link Between GIS and Public Health" (https://lnkd.in/dY8Q43d). We propose to employ a similar leadership approach to the management of this project. Rebecca will manage the project, as she has done in the recent past, but will work closely with Greg in terms of project leadership. This ensures that ECWA benefits from both of their collective experiences, and also improves the continuity of leadership by offering support when one of us is not available. We believe that no other team can offer this style of group leadership to ECWA.

- **Locally Invested:** We value face-to-face collaboration, but also excel at using technology to communicate remotely. LaBella will manage this project out of the Buffalo office, which is located at **300 Pearl Street**. Three members of LaBella's DIG team work out of the Buffalo office, and Greg Coniglio splits time between offices and is routinely in the Buffalo area. When circumstances allow, we can easily arrange to make on-site visits to assist with software deployment, discuss progress on current and planned tasks, and brainstorm about new development avenues to explore. As mentioned above, you will be our priority. Having a strong local presence provides our team with the ability to help ECWA promptly and communicate regularly. We are also fully set-up and capable of working remotely, as evidenced through the past few months. During COVID quarantine, the team, led by Becky and Greg, has been able to maintain its high standards of production and creativity, coordinate seamlessly with our clients, all while working 100% remotely.

- **Solid Foundation:** Backing up the Data Intelligence Group is a solid, employee-owned company, which is currently very strong financially, and in a mode of growth. The state of the company as a whole is a strong foundation that allows the Data Intelligence Group to further grow, bringing additional expertise in technology. As a result, our group of six is already one of the largest such departments in Western New York. Recognizing this recent growth of LaBella's Data Intelligence team, and LaBella as a whole, **we have been recently accepted as the newest member in the Esri Partner Network (Silver Level).**

We are confident that our team will provide the Authority with the **dedication, passion, and technical skill** needed to continue advancing ECWA's GIS program. We have our decades of existing ECWA experience to offer as a strong point of our team, but also the forward focus of a new firm and group and new technology. We look forward to continue to build a long-lasting partnership with ECWA.

Sincerely,
LaBella Associates

Rebecca Smith, GISP, and Greg Coniglio, GISP, PMP
Data Intelligence Group Co-Leadership

INTRODUCTION

SOLVE COMPLEX PROBLEMS

About LaBella

LaBella Associates is an international Architecture, Engineering, Environmental and Planning firm headquartered in Rochester, NY. Our project teams are comprised of professionals from diverse disciplines, working together in partnership to tackle our toughest challenges.

Our wheelhouse is broad, with four key service offerings: Buildings, Energy, Infrastructure, and Environmental. Our staff of over 800 team members is spread across 21 office locations. We're headquartered in Rochester, NY - but our impact is seen, felt, and experienced around the world.

ENHANCE OUR EXPERIENCE

Office Providing Requested Services:

LaBella Associates, Buffalo Office
300 Pearl Street #130, Buffalo, New York 14202
Phone: (716) 845-5101
E-mail: Rebecca Smith, GISP - rlsmith@labellapc.com
Website: https://www.labellapc.com/
LinkedIn: linkedin.com/company/labella-associates-p-c-/

ADVOCATE FOR THE FUTURE

LaBella's Core Service Offerings:

- Buildings and Facilities

- Energy

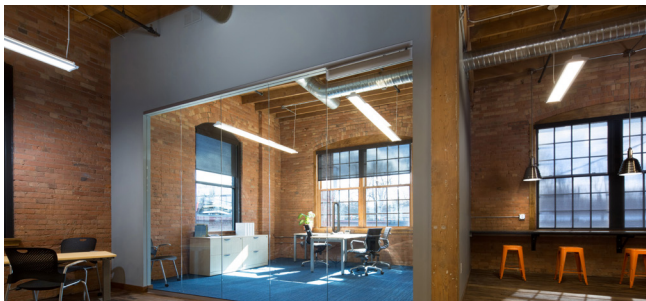- Infrastructure

- Waste, Recycling and Environmental

LEAD THE WAY

OFFICE LOCATIONS

PORTLAND

SYRACUSE

ROCHESTER

BUFFALO

HORNELL

JAMESTOWN

ELMIRA

ITHACA

BINGHAMTON

BALLSTON SPA

ALBANY

NEW HAVEN

SCRANTON

CLEVELAND

RICHMOND

WINSTON-SALEM

GREENSBORO

DAVIDSON

GASTONIA

CHARLOTTE

ROCK HILL

CHARLESTON

OPELIKA

MADRID, SPAIN

LaBella
Powered by partnership.

DATA INTELLIGENCE GROUP PROFILE

Our Data Intelligence Group features 6 dedicated GIS and IT professionals, and support hundreds of projects across all of our core service areas. Additionally, we manage many stand-alone GIS and IT projects. Our group offers:

- **6 dedicated GIS professionals** (GISP, PMP)

- **3 full-time GIS staff based in Buffalo, New York**; 3 full-time GIS staff based in Rochester, New York

- A combined **82 years of experience**, including hundreds of websites and over a thousand projects.

- **44 combined years of direct ECWA experience**

- Certified **Esri Business Partner**

- **2 published GIS Authors**

- **2 collegiate level GIS instructors**

- We offer a **full-suite of technical services**, including:
  - Needs assessment, GIS implementation design, database design, maintenance and quality control
  - Custom application development, including desktop and web-based solutions
  - Data management
  - Software and systems integration
  - Website design, hosting and implementation
  - Field data management (smart-forms, GPS/GNSS, mobile mapping, workflow optimization)
  - Real-time ioT data integration
  - Geospatial Analysis
  - Cartography, Data Visualization, Data Analytics
  - Drone services
  - LiDAR and image processing
  - GIS and IT Project Management
  - Technical Training

LaBella's Data Intelligence Group. Pictured from left to right: Matt Malinowski, Josh Robertson, Rebecca Smith, Greg Coniglio, Sara LoBello, and David Paye

QUALIFICATIONS & EXPERIENCE

1. QUALIFICATIONS

1.1 Introduction

Every organization has data. Turning that data into information is what we do best. We apply our extensive GIS and IT skills to helping organizations work more efficiently. We improve and streamline existing workflows through the use of task automation. We design tools to maintain data quality and improve the user experience. We put data into the hands of those who need it by utilizing mobile and web-based solutions. We design custom and thoughtful dashboards that provide an "at-a-glance" view of key data points with the ability to dig into the data as well. **Through these principles, we help clients gain better insight into data trends and make smarter and faster decisions.**

At-a-Glance: LaBella's Data Intelligence team has deep technical proficiency with the following relevant products and solutions, including:

- Full ArcGIS Desktop 10.x software suite (Desktop, Catalog, etc.)

- ArcGIS Pro, including migration from ArcGIS Desktop

- Administration of Microsoft SQL Server databases using SQL Server Management Studio

- Mobile data collection using Esri Collector, Survey123 and FileMakerGo

- Publication and administration of mapping services via ArcGIS Server and ArcGIS Online

- GIS application development via Web, Desktop, and Mobile platforms

- Multiple systems integration (i.e. AVL, Financial, Work Order) with existing database frameworks

- Website and Desktop application development

- Cityworks data within backend Microsoft SQL Server database schema

- Data Visualizations using Tableau, ArcGIS Insights, and JavaScript libraries for embedded dashboard functionality

- Seon vMax Compass Logistics

- WaterGEMS for Hydraulic Modeling (*Credentialed staff within LaBella Associates)*

- Microsoft Azure Cloud Computing Services

Service Area	Task	Coniglio	Smith	Malinowski	Robertson	LoBello	Paye	Chung
Project Experience	Previous Experience with ECWA GIS Program	X	X	X				
	Previous Experience with ECWA Engineering							X
	Project Management Experience	X	X	X				
	Experience with Public Utility Sector	X	X	X	X	X	X	X
Administrative and Staffing Functions	Comprehensive Kick-off meeting with key members of ECWA/Consultant teams	X	X	X				
	GIS / IT Needs Assessment and Task Prioritization	X	X	X				

Service Area	Task	Coniglio	Smith	Malinowski	Robertson	LoBello	Paye	Chung
Administrative and Staffing Functions	Attend and lead regularly scheduled GIS meetings	X	X	X				
	Esri software upgrades and license migrations	X						
	Seon vMax Compass Logistics coordination and integration	X		X				
	Cityworks coordination and integration	X		X				
	AS400 Power System coordination and integration	X		X				
	Development and implementation of emergency back-up procedures (failover licensing, redundancy, data back-ups and other provisions)	X	X	X				
	Custom application development training / mentoring	X		X				
	Esri ArcMap 10.X training	X	X					
	Esri ArcGIS Pro training	X	X					
	Mentoring ECWA stafff, as needed	X	X	X	X	X	X	X
	Provistion of plotting and large format documents in the event that ECWA cannot generate documents in-house	X	X	X	X	X	X	X
Application Development	Maintenance of ECWA custom ArcGIS desktop applications (ECWA Toolbar, Edit tool, Nightly Download, Hydrant Inspection)	X		X				
	Website creation, design and implementation (including web-mapping)	X		X				
	Mobile Development	X	X	X				
	Support of Mobile Mapping applications	X	X	X	X	X	X	
	Public Engagement/Outreach Tools	X	X	X				
	Development of new tools and workflows, as needed	X	X	X	X	X	X	
	Development of dynamic Dashboards	X	X	X				
	Development of data visualizations		X	X				
Experience with the following software packages and programming languages	ArcGIS 10.x desktop	X	X	X	X	X	X	

Service Area	Task	Coniglio	Smith	Malinowski	Robertson	LoBello	Paye	Chung
Experience with the following software packages and programming languages	ArcGIS Pro 2.5.1	X	X	X	X	X	X	
	ArcGIS Server	X	X	X	X			
	ArcGIS Online	X	X	X	X	X	X	
	Microsoft Azure Cloud Computing Services	X		X				
	Microsoft SQL Server Management Studio	X		X				
	Python for ArcGIS	X	X	X	X			
	Microsoft .NET	X		X				
	Mobile data collection using Esri Collector, Survey123 and FileMakerGo	X	X	X	X	X	X	
	Tableau (Reader and Server)	X		X				
	Insights for ArcGIS	X	X	X				
	Pix4Dcapture				X			
	KittyHawk				X			
	WaterGEMS							X
Licensed FAA Part 107 Drone Pilot					X			

A History of Proven Success with a Vision for the Future:

Our history with ECWA makes us unique - our core team has supported the Authority for a combined 44 years. We have a deep understanding of the progression of ECWA's transition from IBM UNIX workstations to the present usage of robust web, desktop, and mobile-based solutions, and we understand the complexities that are behind each function and process. LaBella's rich and diverse talent pool offers numerous complementary services, which will benefit and enhance the GIS project.

LaBella's team of 6 dedicated GIS and IT specialist have applied their in-depth knowledge of Geographic Information Systems to hundreds of projects. Our diverse portfolio includes:

· Needs assessment, GIS implementation design, database design, maintenance and quality control

· Custom application development, including desktop and web-based solutions

· Data management

· Software and systems integration

CORE VALUES OF OUR DATA INTELLIGENCE GROUP

	Efficiency	We design smart automation systems and tools to take the guess-work out of everyday reoccurring tasks. Take advantage of back-end field calculations and geoprocessing events to save time and improve data quality.
	Accuracy	Don't compromise data quality for efficiency. Our careful application of task automation includes custom back-end data validations, ensuring that data entering the system is accurate and complete. Through the use of web apps, we are able to increase transparency by sharing data with reviewers and decision makers.
	Data Security	We have a number of strategies to protect data, including web servers with firewall protection, password protection, automatic logout, and multi-tiered security that allows for varying levels of data access based on user accounts.
	Immediate Results	Start seeing immediate results with the implementation of our smart solutions. Save time on repetitive tasks; do more with your data. Turn it into powerful decision making tools and get information into the hands of those who need it faster.
	Current with Emerging Technology	Technology helps you provide better services to your customers, and keep you ahead of competitors. It is ever-evolving and changing. Give us the job of keeping up with the latest technology. We regularly attend conferences, trainings, and subscribe to product road map blogs and newsletters. It's not just our job, but it's our passion to play with all the latest tech trends!
	Customer Care	We design solutions around you, our client. Our goal is to implement easy-to-use tools that our client looks forward to using, and makes the job easier. We ensure ongoing guidance and support throughout every step of a project, and pride ourselves on client satisfaction.

1.2 Application Development

Understanding:

The LaBella team understands that the Authority relies on a comprehensive suite of custom applications that work in conjunction to provide end users with various interfaces and toolsets. The custom software includes web, desktop, and mobile applications which work seamlessly across all three platforms to provide a complete framework of functionality. Mr. Malinowski and Mr. Conilgio have been heavily involved with several past iterations of the Authority's GIS support contract. This has given them the opportunity to gain a thorough understanding of the applications that have been developed. Mr. Malinowski was the lead developer on several of the applications as well as assisting with development of most others. Our team has the necessary knowledge of the processes and protocols utilized by the Authority, thereby enabling us to develop new applications as well as maintaining existing custom software.

We are aware that custom software will oftentimes require modifications when updates are made to primary applications (e.g. database schema changes related to Cityworks). Our team is familiar with the complexities of the primary software suites and backend datasets that provide the foundation for the custom applications that have been developed for the Authority. Through our team's previous experience, Mr. Malinowski has the understanding of both primary and custom software. This puts him in an excellent position to address changes that will arise from future and planned updates. His career has spanned several versions of ArcGIS and brought him experience with dozens of additional software systems. Developing custom addins for software requires the foresight to write code that will be sustainable through version updates. Mr. Malinowski understands this and writes his code accordingly.

Our team has the necessary experience, both directly with the Authority as well as with dozens of other clients during their careers, to fully understand the software and database framework that the Authority

currently has in place. Mr. Malinowski's experience, along with that of the entire LaBella team, puts us in an excellent position to provide top tier professional GIS Application Development services. This includes maintaining and updating existing custom software as well as developing new applications as the need arises.

Approach:

The LaBella team will work closely with the Authority to understand the status of current application development along with details related to any upcoming tasks that have been planned. Our team will prioritize tasks and develop a scheduled approach to application development that will ensure prompt conveyance of deliverables. We have found that regularly scheduled status update meetings and emails provide an opportunity for the Authority to stay apprised of the progress of software development while providing a chance for the LaBella team to clarify any matters that arise during the course of development. These may include coding roadblocks, software updates that may offer new functionality, or questions about user interface preferences.

We will also hold brainstorming sessions to explore and discuss how the Authority can take advantage of improvements to Esri software that positively impact application development tasks (e.g. updates to existing toolsets, new functionality, ArcGIS Pro addins, etc.). LaBella enjoys solving the types of unique problems that the Authority requires solutions for. We are also equipped to develop ideas for new applications that may not have been considered by the Authority yet. We find that working in the world of consulting exposes us to many different types of projects. We often find that functionality from a variety of projects can be surprisingly useful in ways that we would have never considered. We find that this open mindset provides benefit to all of our clients.

Some of the potential types of development that the Authority may be interested in include, but are certainly not limited to; Dashboards, bringing together the most useful data points in a single interface with answers at your fingertips; Data Visualizations, presenting data in a way that is easy to read, easy to share, and easy to maintain; or a new module for the ArcGIS Web Map that allows the Authority to analyze the resiliency and sustainability of the water network and related assets.

We also keep up with the latest advancements in Esri software suites and the development APIs that accompany them. We look for new features and functionality that can be incorporated into the software that we develop for our clients. Our goal is to ensure that the end-product we provide is making full use of what the base software has to offer. New functionality breeds new ideas, which we like to pass on to the benefit of our clients through the development of new software.

The LaBella team has the required software plus the foundational knowledge to immediately begin providing a variety of custom application development support to the Authority. Our team has decades of experience developing custom GIS solutions for web, desktop, and mobile platforms, many of which were developed directly for the Authority. Coupled with his familiarity with the Authority's software and database framework, Matt would be able to begin assisting the Authority immediately.

Our proposed approach, including specific suggestions to enhance existing applications, and develop new applications, are listed in detail in Section 2. As you'll note in that section, we proposed an expanded role, beyond GIS, to include Data Sciences, to help meet ECWA's needs.

1.3 Administration of ArcGIS Desktop and ArcGIS Server

Understanding:

We understand that the Authority owns a number of ArcGIS Desktop licenses, including extensions, while also operating an instance of ArcGIS Server via Azure. A local copy of the data housed in Azure is downloaded on a nightly basis in order to provide a read-only snapshot of data to the majority of ArcGIS users. This situation requires that several systems operate together smoothly, especially the Esri software

suite. This requires software requirements analysis, maintenance of licenses, administration of mapping service, assigning appropriate privileges to users and/or users-groups, and staying current with the latest security patches and software updates. The LaBella team has many years of experience managing all aspects of both ArcGIS Desktop and ArcGIS Server, up to and including the most recent versions. We also have internal resources with experience managing Azure web services which allows us to provide a further level of support and understanding. We strive to follow industry best practices in all technical support services that we provide to our clients.

Approach:

Our team will provide assistance as needed with maintenance and administration of both ArcGIS Desktop and ArcGIS Server. We will work closely with the Authority to determine how best we can help in this regard. We feel confident as a team, especially considering our history with the Authority, that we can provide assistance with any needs that may arise. We have direct contact with Esri representatives that can provide prompt assistance if a situation warrants it.

1.4 ArcGIS Pro

Background:

ArcGIS Pro, Esri's latest professional desktop GIS application and eventual successor to ArcMap, was initially released in 2015. Part of the Esri Geospatial Cloud, ArcGIS Pro is Esri's powerful, single desktop GIS application. Technologically ahead of everything else on the market, ArcGIS Pro supports data visualization, advanced analysis, and authoritative data maintenance in both 2D and 3D. ArcGIS Pro is tightly coupled with the ArcGIS platform supporting data sharing across ArcGIS Online and ArcGIS Enterprise through Web GIS.

Most of the functionality found in ArcMap is available in this redesigned application. The challenge is learning an entirely new user interface and unfamiliar workflows. The benefits of migrating to ArcGIS Pro include:

- Performance enhancements: ArcGIS Pro is a 64-bit, multithreaded application

- Seamless integration with related applications (ArcGIS Online and ArcGIS Enterprise)

- Improved 3D capabilities

- Wider selection of advanced cartographic tools

- More efficient user-interface

Experience:

Our team has been working with and learning this product since its initial release in 2015. Our experience includes:

- A combined 15 years of ArcGIS Pro experience

- ArcGIS Pro Migration

- Designed a collegiate-level online training course instructing students on the use of ArcGIS Pro.

Mr. Coniglio and Ms. Smith collaborated on an extensive online course for the State University of New York at Buffalo on the topic of Esri's new ArcGIS Pro software. LaBella DIG understands the importance of an ArcGIS Pro training plan to ECWA, and recognize that our experience with this course makes us a strong candidate to assist you in this area. The course that we developed contained six main 'modules' or topics of instruction. Each module contained lecture material in Power Point format, video podcasts to supplement this material, quizzes, and hands-on exercises using ArcGIS Pro.

Introduction to ArcGIS Pro (GIS)

Learn ESRI's latest desktop and cutting-edge GIS software Continuing Education / Department of Geography

▶

Start Date	Duration	Price	
Coming Soon	4 weeks (6 Modules)	$395	Enroll Now

Course Description

Maps, computer graphics and displaying your ideas in a visual way is much better when it contains information that is useful!

Do you know GIS? Are looking to upgrade to Pro? Or are you trying to break into this exciting field? If so, then register and discover how to make informational maps and analyze patterns using ESRI's latest cutting-edge geographic tool.

We have recently seen an explosion of new tools for understanding and using location information, especially with mobile devices. Learn how these advances integrated with GIS change how we do EVERYTHING.

We will use the latest version - 2.3 ArcGIS Pro. This is included FREE with your registration and is the ArcGIS for Desktop student license for 1-year of use.

What You'll Learn

- Understanding GIS concepts and spatial data types using the latest version 2.3
- Investigate the user interface and evaluate the uses
- Explore ArcGIS Pro and how to utilize online content
- Manage, manipulate and analyze your own data
- Display and share your data in a meaningful and creative way

🏛 Organization	UBx
⏱ Enrollment End	
🎓 Effort	3-8 hours per week
⬦ Level	Introductory
🎓 Subject	Continuing Education; Professional Development
🏷 Tags	geography gis computers esri maps

An excerpt from UB's featured online learning program, The ABC's of ArcGIS Pro. This course was conceptualized and developed by Ms. Smith and Mr. Coniglio.

University at Buffalo
College of Arts and Sciences

Geocoding Addresses

The Geocoding Addresses tool requires the user to define the following parameters:

5 The user is required to identify a location and file name for the resulting feature class that the Geocode Address tool will create

6 Select the County that the addresses are located in. Making this selection will improve the accuracy of geocoding in most cases.

- If a field representing countries in the Input Table is mapped to the Country Input Address Field, the country value from the Input Table will override the Country parameter.

1 Table containing the addresses you wish to geocode

2 Address Locator

3 Select between single field and multiple fields

4 Choose the corresponding fields in your table

5 Output feature class

6 Select Country

ERIE COUNTY WATER AUTHORITY

GIS Services Contract, Erie County, New York

CLIENT PARTNER

Michael McAuley
(716) 684-1510
mmcauley@ecwa.org
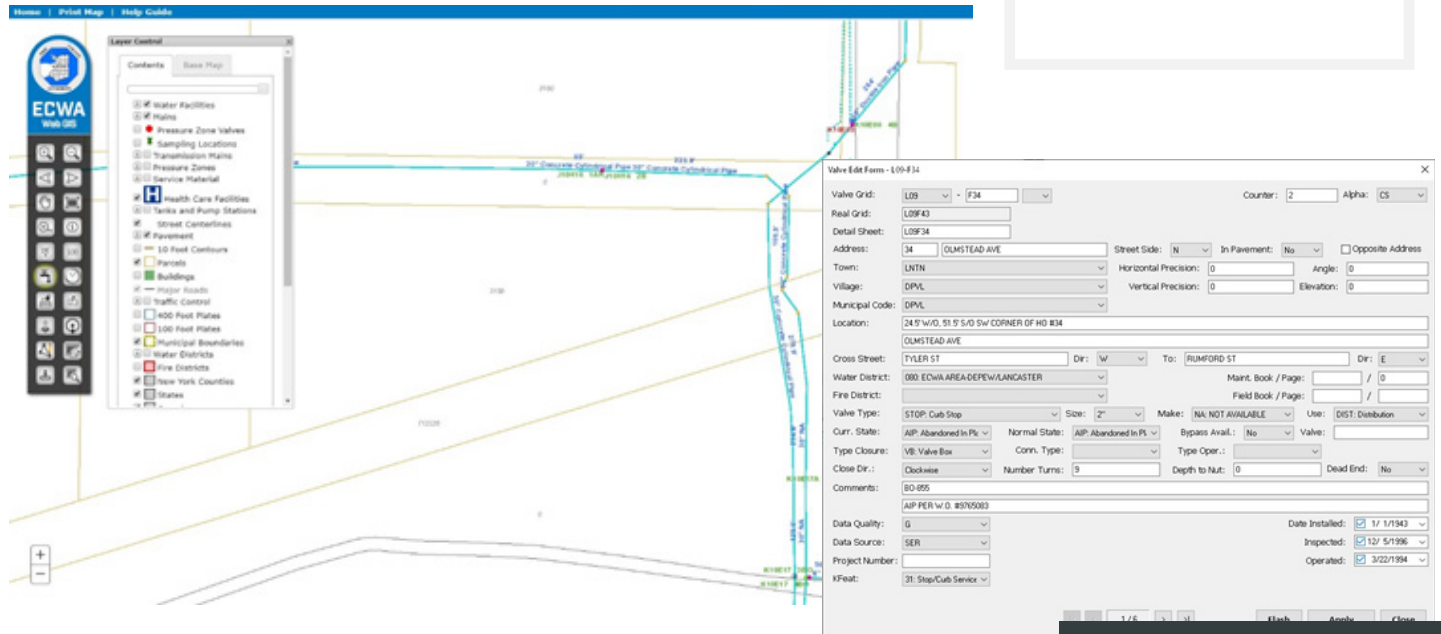
Example of a custom designed ArcGIS Desktop editing tool that our team developed for the Erie County Water Authority.

LaBella team members Becky Smith, Greg Coniglio and Matt Malinowski, under previous employment, worked on the GIS Services Contract for the Erie County Water Authority.

Address: 3030 Union Rd, Cheektowaga, NY 14227

Tasks Subcontracted: None

Total Dollar Value of Contract: ~$2,500,000

Contract Term (start and expiration): 1994 - 2019

Actual Completion Date: April 2020

Description of Similar Services:

The proposed LaBella team has collectively provided the Erie County Water Authority with 44 years of GIS support. Our team began assisting the Water Authority with building a GIS from the ground up. Mr. Coniglio initially began working with the Authority nearly 25 years ago, providing them with a Needs Assessment and a road map to design and implement a GIS. Mr. Coniglio managed a team of analysts and developers through the successful completion of many different major tasks, including:

- Data creation and data maintenance (digitizing waterlines and water facilities from as-built drawings, etc.);

- Application development to provide access to GIS information about the Authority's infrastructure to nearly 100 staff;

- Utilizing Esri ArcGIS Desktop tools on PC's and laptops;

- Integrating GIS data into ECWA's Enterprise Geodatabase and Azteca CityWorks;

- Development of an internal web mapping site to allow easy access to GIS data to hundreds of employees;

- Development of custom desktop editing tools to improve data quality, accuracy and standardization;

- Introduce the Authority to mobile GIS tools such as ArcGIS Collector for capture of curb box and leak information;

- Aid in software upgrades and server migrations;

- Custom ArcGIS training;

- Additional ad hoc GIS and IT related support throughout the duration of the contract

NIAGARA COUNTY

GIS Services Contract, Niagara County, NY

CLIENT PARTNER

Lisa Casey, GIS Coordinator
(716) 439-7077
Lisa.Casey@niagaracounty.com

Address: 301 10th St, Niagara Falls, NY 14303

Tasks Subcontracted: None

**Total Dollar Value of Contract:** $1,500,000

Contract Term (start and expiration): 2007 - 2014

Actual Completion Date: 2014

Description of Similar Services:

Over a seven year period, Our team members assisted the County with implementing a GIS program throughout multiple departments (Real Property, Planning, Engineering, Health, etc.). An initial Needs Assessment was conducted to deliver an Implementation Plan to effectively roll out this new program. Tasks falling under the implementation plan and carried out by the team include:

- Development of workflows and custom ArcMap Desktop tools for each department;

- Aided in a large data creation and conversion effort to create an Enterprise Geodatabase;

- Developed and delivered an extensive GIS training program, teaching GIS topics to over 100 students
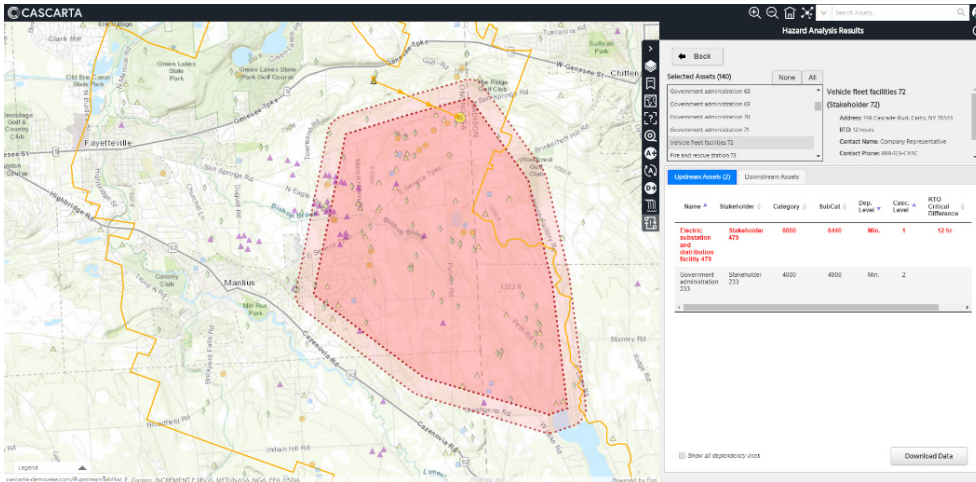
.
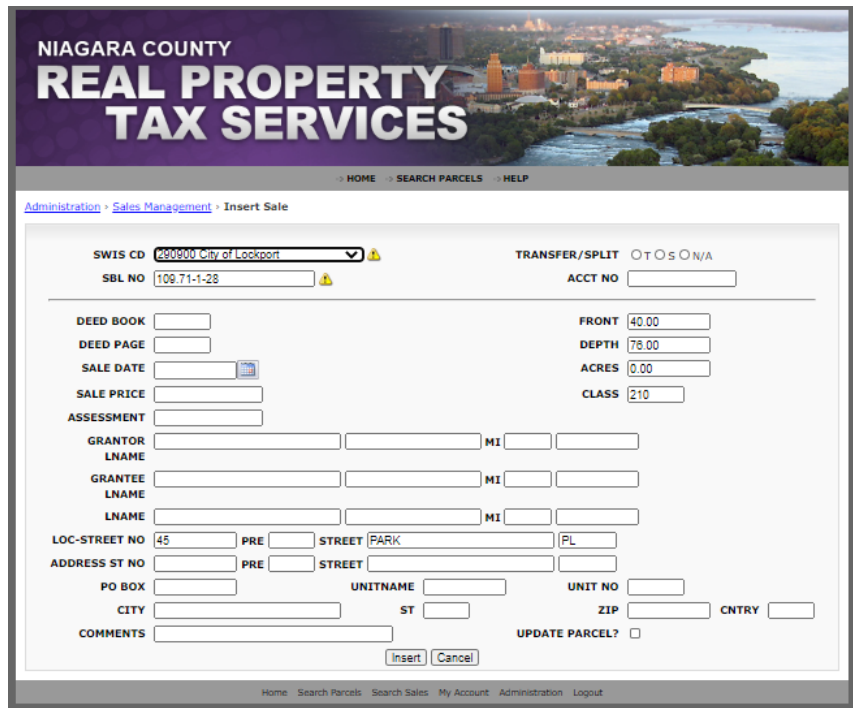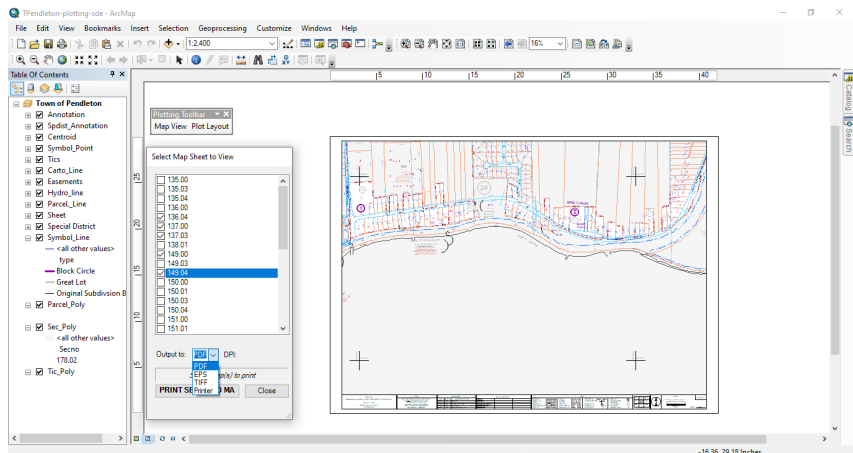
EMERGENCY PLANNING WEB SOLUTION

(CASCARTA)*, Larimer County, Colorado

CLIENT PARTNER

Kohl Parrott
Office of Emergency
Management, 200 W. Oak
Street, Fort Collins, CO
80521

LaBella team member Matt Malinowski, under previous employment, worked on the Emergency Planning Web Solution for Larimer County.

Address: Larimer County Office of Emergency Management, 200 W. Oak Street, Fort Collins, CO 80521

Total Dollar Value of Contract: $250,000

Description of Similar Services:

Cascarta is an ESRI ArcGIS Server JavaScript API based web mapping application developed for Larimer County, Colorado. It is designed to allow emergency managers, planners, and other community stakeholders to see and model the resiliency of the built environment, including critical lifeline infrastructure, and is built to model the cascading events that occur during a disaster.

Matt worked with the project team to identify all of the appropriate GIS data to be gathered to support this web map and its geospatial analysis capabilities. This included data such as transportation infrastructure, public health and safety facilities, utilities, locations of services and distribution centers, water sources and more.

He then led the scoping and design of the web mapping application, which included defining the tools and analyses to be included. He was then also the lead developer, directly programming most of the site's features.

Main features of the tool include:

- Exploring relationships between community assets, in order to develop an understanding of the resiliency of the built environment

- Allowing emergency managers to identify and allocate additional resources as needed during a crisis

- A key feature of the site is the ability to model 'cascading' issues that occur during a hazardous situation (the effect of losing on resource has on other resources)

Larimer County has made Cascarta available as an open source resource to any community. Their website contains a link to download the application, and includes a guide on how to set up Cascarta.

https://www.larimer.org/emergency/prepare/cascarta

GEOGRAPHIC INFORMATION SYSTEMS (GIS) STORM WATER MAPPING

Town of Cramerton, North Carolina

LaBella chose to use a combination of Collector for ArcGIS and Esri Survey123 to collect stormwater features.
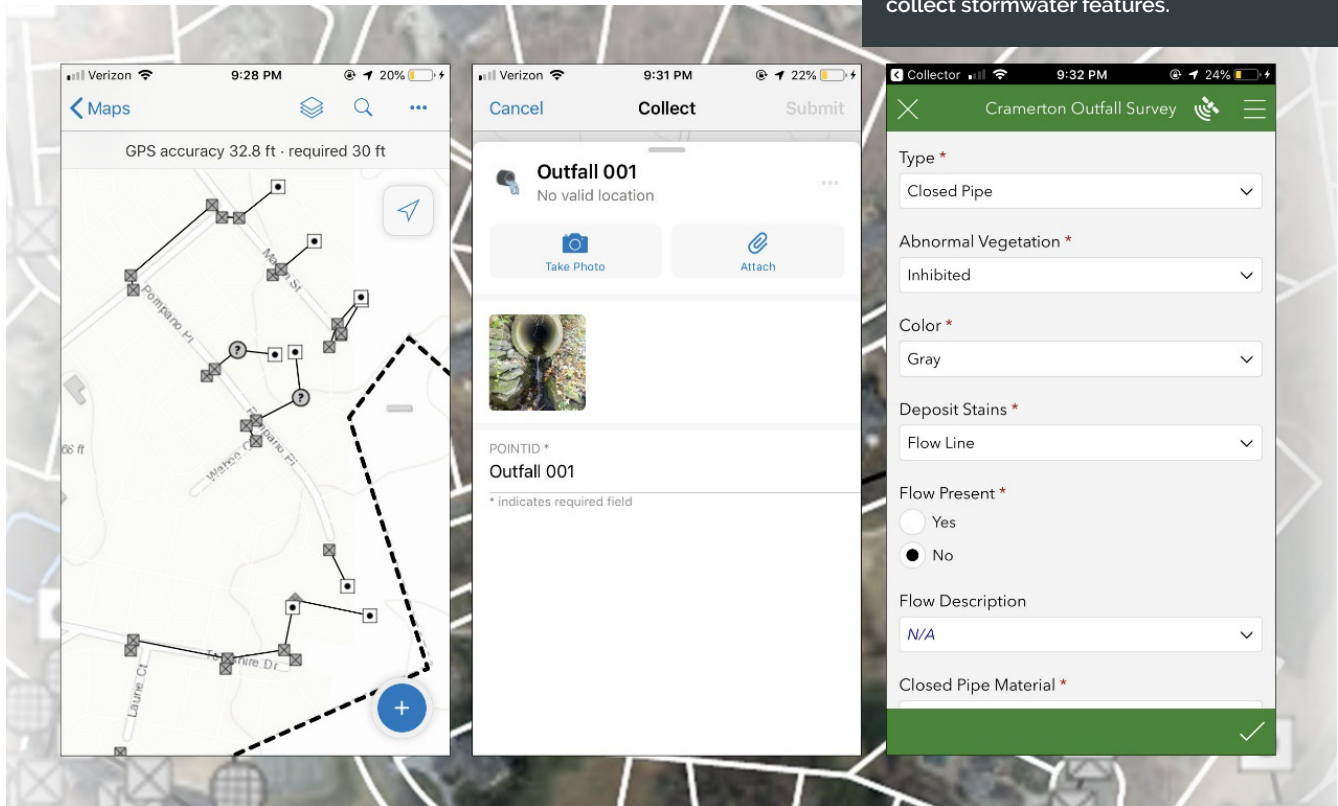
As part of the NPDES permit and Stormwater plan, the Town is required to maintain a storm sewer system map showing the location of all major outfalls.

LaBella is creating a GIS-based comprehensive stormwater map for the Town of Cramerton (Gaston County, North Carolina), that catalogs and displays the Town's storm sewer system, including locations of outfalls, manholes, drainage inlets, boundaries of storm sewersheds, and location of receiving waters.

LaBella will be updating the Town's GIS data using a robust ArcGIS Collector / Esri Survey123 application. Field inspectors will capture accurate spatial locations of the Town's stormwater system, attach geotagged photographs, and fill out a user-friendly data entry form to complete the survey. The town will use the GIS database developed for this project as a base to further expand their GIS capabilities.

LaBella will aid the Town in the development of the comprehensive GIS, and provide training services to ensure project success.

LaBella
Powered by partnership.

UNDERSTANDING & APPROACH

2. PROJECT UNDERSTANDING AND TECHNICAL APPROACH

This section demonstrates our understanding of this project, and summarizes how we'd approach the specifically enumerated scope items, as well as potential new items. Everything we propose in this section is intended as a suggestion based on our knowledge. Our approach is always one of collaboration and teamwork with our clients, versus an approach of just coming in and saying "do what we say." Our approach would be to review, with ECWA's internal stakeholders, the scope of each item and suggestion and collaboratively ensure that the best approach is being pursued.

2.1 Erie County Water Authority's Comprehensive Strategic Plan

ECWA adopted its Comprehensive Strategic Plan on September 19, 2019. The plan announced the following strategies:

Key Areas of Focus: Redundancy, Expansion, Automation/Cyber Security, and Investment in System

Seven Strategic Initiatives:

1. Resiliency of Infrastructure and Assets
2. Water Quality
3. Expand Regional Presence through continued inter-municipal cooperation
4. Technology
5. Customer Service
6. Employee Focus
7. Emergency Preparedness

LaBella's DIG team feels that our approach will benefit ECWA in each of the key strategic areas you've identified. The introduction to this section will touch upon general ways we feel we can assist in helping you meet each one of your strategic goals. These goals are also kept in mind when discussing additional specific topics covered in this approach section.

1. **Resiliency of Infrastructure and Assets:** ECWA is using spatial data coupled with asset data to track maintenance work orders, age, leak history, etc. of its infrastructure. Having a sense of current conditions can help the Authority to be resilient and plan for future improvements. We feel that we can enhance the approach to this strategic goal by improving the ability to summarize and output asset data for easier visualization. This will improve the ability to easily get at your data in order to make quick decisions. The implementation of an "Asset Dashboard," using data visualization software can be used to create a data mashup using information from GIS, Cityworks, Power System, financial systems, etc. to assist ECWA in assessing its current asset information while also planning future changes.

This example, developed by Matt Malinowski, incorporates both GIS web mapping, and data visualization. The example maps the change in water conditions, and the cumulative collection of oil product, from water wells for a midstream oil provider, and a facility in Oklahoma

2. **Water Quality:** Beyond mapping the ~170 locations for water samples, GIS has not historically played a central role in ECWA's Water Quality program. The addition of Data Analysis and Data Visualization to our approach provides additional opportunity to use technology for this strategic goal. Our team has previous experience using Tableau Desktop and Tableau Server to analyze and visualize environmental sampling data. These examples include mapping water level, temperature, and salinity surrounding a nuclear power plant in Florida, monitoring water level and oil product in water wells for a mid-stream provider in Oklahoma, and monitoring a variety of chemicals in soil and water samples at a variety of locations. This approach can be used to develop a data analysis and data visualization product to review analyte results of ECWA water samples. This tool can also be used to more easily present these results to the public.

3. **Expand Regional Presence** Through Inter-Municipal Cooperation: ECWA's stated goal here is to work more closely with other municipalities in the area. This goal can be more easily achieved through data sharing. ECWA already has web sharing capabilities, both through its onsite and Azure instance, and also the ability to share web mapping, using ArcGIS Server Enterprise. ECWA could explore the possibility of creating a sanitized version of its asset map, for sharing with other area stakeholders and municipalities. If desired, a web-based visualization package could be used to present this data, such as Tableau Server, or other JavaScript based charting tools. It is anticipated that this would be pared down spatial and business data, rather than the full set of information. Access to this information can also be restricted through password protection.

Erie County's Office of GIS recently used ArcGIS Hub to disseminate information to the public about COVID-19 in the community, and the County's response.
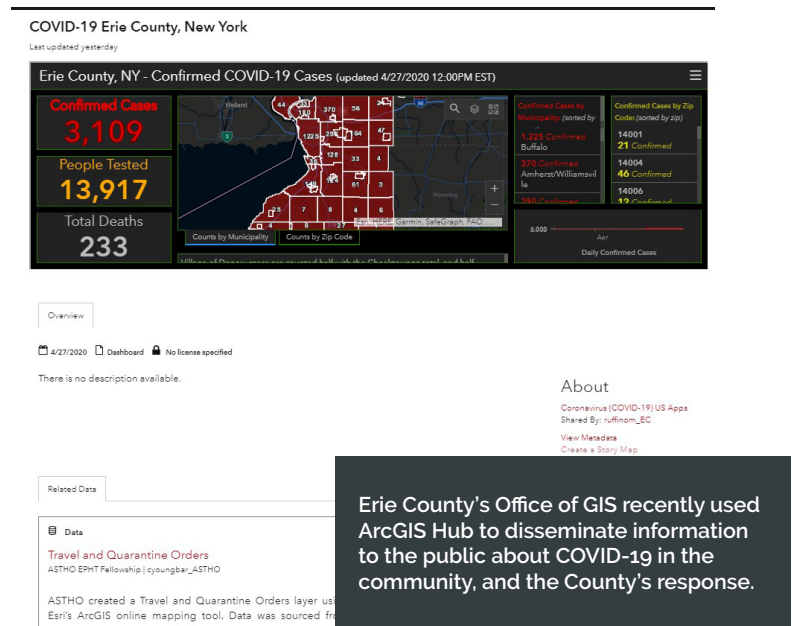
ECWA can also use a program such as Esri ArcGIS Hub (already available through ECWA's Organizational ArcGIS Online account) to share information with stakeholders, ArcGIS Hub is an easy-to-configure community engagement platform that organizes people and data online.

4. **Technology:** ECWA has identified Technology as a strategic initiative. The continued use of GIS for managing and analyzing spatial information is a central part of our assisting ECWA with this goal. We feel that our proposed addition of data visualization and data analysis to our approach further strengthens ECWA's position on this part of the strategic goal.

5. **Customer Service:** ECWA strives to focus on customer service. There are several ways that our DIG approach can assist in meeting that strategic goal. We can help improve customer service by using GIS to monitor social media for complaints about leaks, etc. Some utilities even direct the public to comment on issues using a "#hashtag". This is easier than asking the public to call in to the service center. It is more efficient and consumes less ECWA resources, and often alerts you to the problem sooner. ArcGIS can also be used to notify customers of an outage. A 'polygon sketch tool' within ArcGIS Desktop or on the ECWA GIS Web Tool can be used to select each customer in a drawn area. Contact records can be accessed in the Power System to send automatically generated notices. ArcGIS Online can also be used to quickly generate outage maps to disseminate to the public.

6. **Employee Focus:** ECWA is already using GIS as part of its strategic focus on employees. During the past three years it has developed the "Employee Search" tool to show employee home locations on the GIS map and view basic data about them such as department and emergency contact info. We can further focus on employees by incorporating data visualization and analysis techniques. We propose to meet

with executive leadership and HR to discuss what employee data points can be reviewed using data analysis software. As mentioned later, Matt Malinowski uses Tableau internally for LaBella's Civil Division to track department metrics such as employee utilization, monthly net revenue, etc. We could help ECWA by analyzing similar items, overtime allotment, benefit allocation, etc.

7. **Emergency Preparedness:** LaBella recognizes the importance of emergency preparedness to ECWA and can assist in preparing for emergency contingencies as part of this contract. We describe below, based on past experience, our various strategies for ensuring that key business data remain available despite interruptions. LaBella also has the architecture to assist with hosting data and applications, as well as color large-scale plotting, if need be. Other potential applications overlap with Strategic Point #5 above, as a large part of Emergency Preparedness is also Customer Service. We propose to build additional tools to notify the public of outage locations and other situational awareness tools that are useful during a crisis. For example, ECWA's existing ArcGIS Online instance can be used to notify the public of the geographic extent of localized outages. This strategic focus also overlaps with #6. For example, the Employee Mapper tool can be adapted to identify employees not able to make it to work during a large-scale lake effect snow storm, using either a sketched polygon tool or perhaps importing NWS data.

2.2 Administration and Staffing Project Management

Understanding:

Every successful project has a well-defined and comprehensive Project Management Plan. This plan will help guide the team to successfully achieve the project goals within the given scope, schedule, and budget. We understand that the GIS Services consulting project actually consists of multiple sub-projects which are spread across different business units, and disciplines. With each one having a defined scope, budget, and schedule, it will be important to communicate frequently and effectively with the project team and stakeholders to ensure a successful outcome.

Approach:

LaBella designates Ms. Rebecca Smith, leader of our Buffalo office's Data Intelligence Group, as the Project Manager and main point of contact throughout the three-year term. Ms. Smith has over 15 years of professional GIS experience. She specializes in GIS data editing and management, mobile/GPS data collection, cartography, geospatial analysis, and workflow automation. She has experience in project management and functions as a hands-on technical expert on projects of similar scope to the Authority. **In addition, she has served as Project Manager of the Erie County Water Authority GIS Services Consulting project while with Ecology and Environment (2017 – 2019). Prior to that she served a technical role under the same contract (2004 – 2017).** This makes her uniquely qualified to act as Project Manager for the upcoming contract. As discussed in Section 3, Mr. Greg Coniglio will serve as Project Director, and be closely involved. Greg and Rebecca will co-lead this project.

To ensure project success, our approach is

- Execute effective communication:

  - Hold regularly scheduled GIS meetings to discuss the progress of each task. Staff in attendance can include the LaBella ECWA GIS team leadership, and any other DIG or other staff appropriate given the topics of discussion;

  - Provide written progress reports on a monthly basis;

  - Cultivate a collaborative environment by providing mentoring and training to ECWA as needed

- Develop project plans for each task, to include:

  - Defined goals, scope, schedule and budget

- Identify risks and implement mitigation measures (data back-ups, emergency plans, etc.)

The LaBella team plans to take a **collaborative and transparent management approach**, and will actively involve all project members in the planning, collaboration and control processes.

Note: If restrictions or cutbacks on in-person meetings are still in place during this contract, LaBella has the capability to host these communication meetings remotely. The DIG team has been staying in touch this way with its members and other LaBella leadership this way, and has accounts at its disposal to remotely meet on a variety of systems (Zoom, Skype for Business, and Microsoft Teams). With all else equal, our preference is for in person communication meetings, with at least Greg and Rebecca, and others as needed. There is the capability however, if needed, for remote meetings.

2.3 Development of an emergency backup protocol (failover licensing, laptop, etc.)

Understanding:

We know the importance and necessity of data backups and emergency plans, and will work closely with ECWA GIS and Information Technology staff to ensure that access to vital information is available at all times. We have previously assisted ECWA with these safeguards. It is essential to have access to data both in and out of the office, especially during an emergency. Failover, high availability, and redundancy are techniques used to ensure system uptime. This also helps to minimize or prevent data loss in the event of a machine failure or other disaster.

Approach:

LaBella's team has a deep understanding of ECWA's existing GIS and IT infrastructure, and will work with the Authority to put policies and procedures into place to ensure access to GIS data and applications is available to the Authority at all times. We propose to implement:

- **Failover Licensing:** Automatic failover is the process of moving active services (i.e. GIS web mapping services, etc.) from an organization's primary system to a redundant backup system in the event that the primary system fails. LaBella's team will use their knowledge of ECWA's existing systems and understanding of failover licensing to implement these measures for Esri-based applications. Esri makes license files for your standby or failover sites at no additional cost. At the point of our last knowledge, we had worked with Esri, and ECWA IT, to acquire failover backups for all of ECWA's ArcGIS Desktop, and Server licenses. An early step in this project would be to ensure that these are up-to-date and have been refreshed, and are readily accessible in case of disaster.

- **Redundancy, backups and other provisions:** A higher layer of redundancy is achieved when the backup device is completely separate from the primary device. For example, a backup internet line is provided by another ISP provider, so a completely separate physical link and connection from the primary internet connection, or a redundant piece of hardware which resides in another building. ECWA is now in a good position in that its web-based solutions, such as Cityworks, and the ECWA GIS Web Tool, are hosted on Microsoft Azure instances. ECWA also still has, however, significant resources on its in-house Power System. It is worth considering having a backup, of at least the web mapping services, on "ecwa1gis" internally. At one point ECWA also had been keeping a redundant server in house with GIS databases and mapping services, "ecwa2gis" if desired, and if this need updated, our team proposes to assist ECWA IT with refreshing this additional backup.

  Another aspect of a backup, should all internet connectivity be problematic, is assuring the complete availability of GIS information offline. One suggestion our team has is to utilize a number of ECWA laptops, loaded with ArcGIS Desktop, or ArcGIS Pro failover licenses. These laptops could be outside of regular usage, but in a known location, so they can be retrieved and utilized when other systems fail. Ideas for what to include on the laptops include:

- A standalone ArcGIS Desktop or Pro license that does not require a server for license validation. This would be one of the failover licenses mentioned above.

- A full shapefile/geodatabase backup of ECWA asset data, and related data (aerials, basemap and other planimetrics, etc.)

- Investigate the possibility of additional extract of SQL Server Cityworks tables, and having tools to link from ArcGIS to this information (replacing such links, available in normal operations, via Cityworks web-based mapping, ECWA GIS Web tool mapping, and other Cityworks data entry screens)

- Full set of ECWA Details, and potentially other sets of drawings (as-built drawings, 100 & 400 plates, etc.)

A challenge with this approach is ensuing that someone is tasked with keeping the data on the laptops current. Our team could assist either by incorporating this into our workflow, or using our regular communications to remind ECWA staff, if needed.

Previously, when ECWA GIS used laptops equipped with ArcGIS Engine with locally stored data, updates of data where handled by a specific Windows executable developed for this purpose. Laptops were plugged into the network, and the program was executed. The tool would automatically copy updated GIS and AS400 data from the network on the laptop. If desired, LaBella could resurrect this code and update it for these emergency laptops.

It is worth considering keeping at least one of these devices off-site, should access to the building in Cheektowaga be an issue.

On our team, Greg and Matt both have previous experience with developing and maintaining this program for ECWA,

- **Offsite Support**: If desired, LaBella can also keep a periodically refreshed dataset offsite at our office, should both your systems, and emergency laptops both be unavailable. We could then make this data available in the event of an emergency, on one of our devices.

   If needed, both our Buffalo and Rochester offices features large plotter scanners, that are available for your usage, should printing services be needed, and your printers are not available.

2.4 Custom GIS and Application Training Classes and Mentoring

Understanding:

We understand that no technology implementation is complete without a comprehensive training program. Our team will ensure that ECWA staff has access to both informal **mentoring and hands-on, traditional training** on all tools, products and methods that are developed and utilized under this contract. The training and teaching credentials of our team, both with ECWA previously, and in general, make us uniquely suited to assist in this area.

LaBella's Data Intelligence team understands the importance of training and mentoring to the growth of ECWA's GIS program. Our background in training and mentoring spans decades, including experience developing training programs directly for ECWA, but also having developed a comprehensive course on Esri's new desktop ArcGIS Pro software. LaBella understands that a key component of ECWA's coming year's work plan will be to develop a migration strategy to upgrade ECWA applications from ArcGIS Desktop version 10.x to ArcGIS Pro. LaBella's unique combination of direct and decade's long ECWA experience, extensive and wide-ranging knowledge of industry-standard software, and professional teaching background make us an ideal candidate. Some of our key related experience include:

ECWA ArcGIS Training

Mr. Coniglio assisted ECWA in migration from previous products to ArcGIS Desktop version 9.x, and then ArcGIS Desktop version. 10.x. The custom course assisted ECWA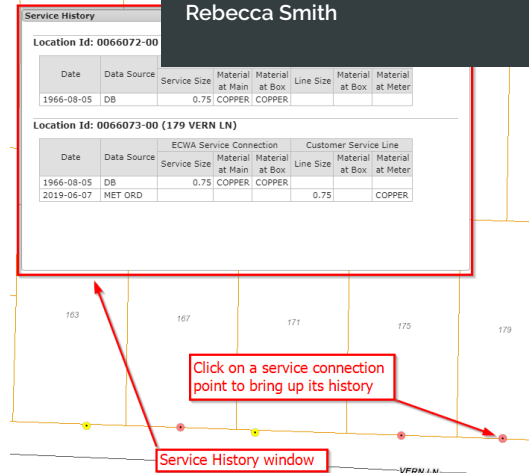 in using this new version of desktop software. The course was aimed at staff in the Design and Construction departments, as well as other Engineering staff and management. Using his understanding of how ECWA used previous versions, he prepared six 'lessons' which featured instruction and demo, followed by hands on exercises.
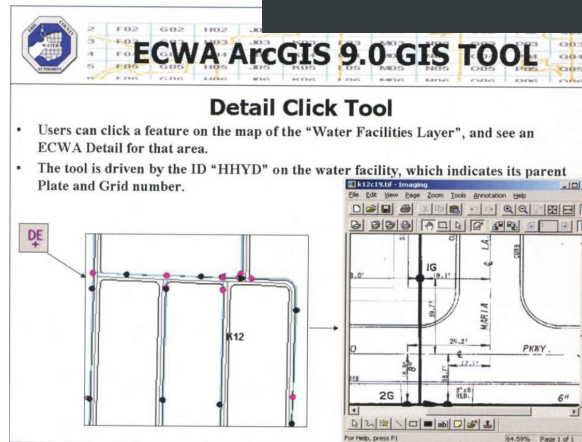
ECWA Web Tool Help Document

Ms. Smith assisted ECWA by developing comprehensive help documentation for the ECWA Web Tool currently in use. The guide has been converted to PDF, for direct link from the web tool, as well as providing the user the ability to download and print out the document. The PDF was also then converted into HTML for inclusion as web based help, linkable from the ECWA Web GIS Tool.

State University of New York at Buffalo ArcGIS Pro Online Training

Mr. Coniglio and Ms. Smith collaborated on an extensive online course for State University of New York at Buffalo on the topic of Esri's new ArcGIS Pro software. LaBella DIG understands the importance of an ArcGIS Pro training plan to ECWA – and recognize that our experience with this course makes us a strong candidate to assist you in this area. The course that we developed contained six main 'modules' or topics of instruction. Each module contained lecture material in Power Point format, video podcasts to supplement this material, quizzes, and hands on exercises using ArcGIS Pro.

Greg Coniglio developed and delivered this custom GIS training class to ECWA staff when that software version was released.

An example from the ECWA Web GIS tool help documentation developed by Rebecca Smith

An example ArcGIS Pro class slide from the UB Class developed by Greg and Rebecca.
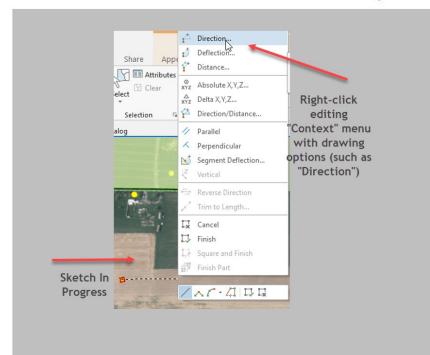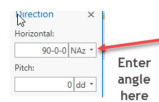
Approach:

Our team proposes to leverage the above experience, both with ECWA, and ArcGIS Pro, to develop a custom-tailored training ArcGIS Pro experience for ECWA staff in Engineering. We will review proposed content with the ECWA GIS liaison, but would anticipate highlights to be similar to this:

- The basic framework of this training can be found already in place in our UB course Modules 2-6 (introduction to ArcGIS Pro, Exploring Spatial Relationships, Creating and Editing Data with ArcGIS Pro, Symbology in ArcGIS Pro, and Exploring Map Layouts).

- This course will follow a similar flow, with a greater emphasis on Editing.

- Module materials will be updated (lecture material and any exercises) to reflect ECWA data, and ECWA process examples

- Additional content will be developed where needed to reflect specific ECWA content

  - Specific editing protocols that are required for editing ECWA SQL SDE databases (and if required in Pro, the Cityworks SQL data)

  - Usage of proposed custom ECWA ArcGIS Pro functionality, such as an update of the "ECWA Toolbar", and the "ECWA Edit Toolbar and Menus".

  - Any other procedures that are specific to ECWA that might need maintenance in Pro, such as updating employee database info, street centerline changes to reflect new subdivisions, etc.

- Anticipated target audience would be GIS staff at ECWA: Mike McAuley, Ryan Cassens, and Donna Chestnut. If ArcGIS Pro licenses are deployed to a wider audience (Russ Stoll, other Engineering staff), we can develop a streamlined course – likely a subset of the materials outlined above.

2.5 Application Development

Understanding:

We understand that Application Development is an important part of this project. We understand that there are a comprehensive suite of custom applications that work in conjunction to provide various interfaces and toolsets to end users. ECWA has a rich history of supplementing GIS tasks with specifically designed applications, to streamline workflows, provide QA/QC, and provide an easy-to-use experience for end users. Many applications have been in place for decades, only to be updated as software gets updated. For example, the "Desktop ArcGIS Toolbar" began in an ARC/INFO environment, was then migrated to ArcView 3 Avenue code, then MapObjects, then to ArcGIS Engine, finally to an ArcGIS Desktop ArcMap environment, and also to web-based tools on the ArcGIS Server JavaScript API based "ECWA GIS Web Tool". Our staff played a significant role in many to most of these upgrades. This puts us in a unique position to understand what is needed for these applications moving forward. Our team is committed to working with ECWA's GIS Team and other department leads to identify the best approach for each application (update to new software, convert to a new configurable application, leave as is, etc.)

Specifically, Matt and Greg have direct experience with each of the tools mentioned in the RFP under Application Development. Because of this, we also have a thorough understanding of the background processes and protocols that drive the applications. This also gives us the experience to know where to suggest new approaches or applications for future projects. In this section, we will briefly review that experience, and given that understanding, suggest a potential approach moving forward with these items. With all of these suggestions, we'd suggest a review at project kickoff with ECWA staff to collaboratively decide on the best path forward.

As mentioned above, we understand the complexities of inter-dependent data and applications at ECWA, and thus understand what changes are triggered by one update. For example, recently, Cityworks required database schema changes to a variety of ECWA ArcSDE feature classes. Matt and Greg had an understanding of where changes were needed, and worked with Mike McAuley to implement those changes.

2.5.1 ArcGIS Desktop "ECWA Toolbar":

This application was originally developed by Greg (with assistance from Mike McAuley), first in ARC/INFO, then ArcView 3, and eventually ArcGIS Desktop. It contains a set of core features, available to ArcMap users. More recently, Matt Malinowski assumed maintenance of this functionality, and programmed some new features. The set of tools includes:
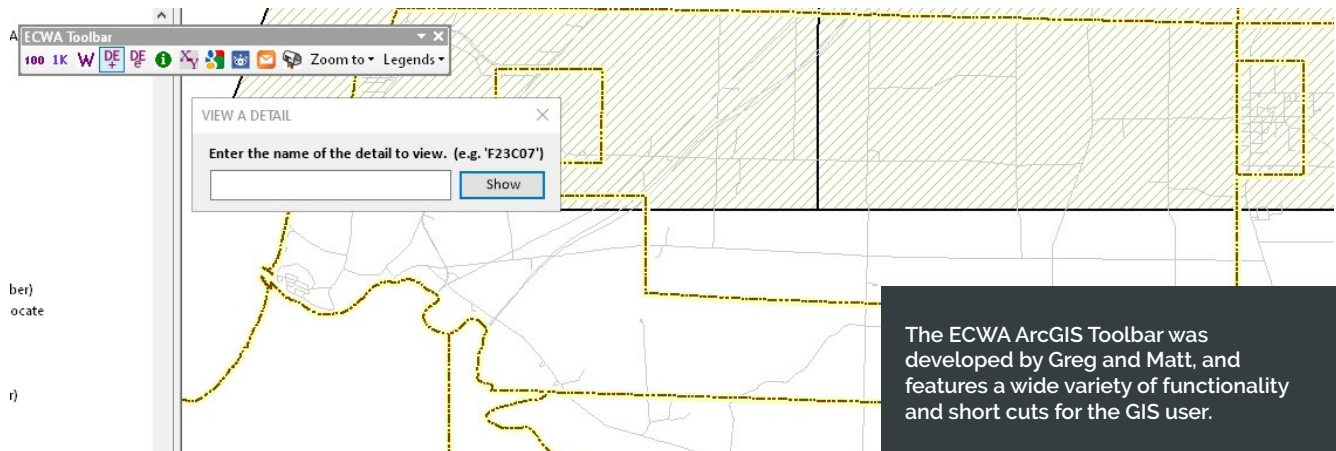
- Clicking features/map locations to access scanned ECWA Detail Sheets, 100', 1' plates, and acquired Village of Williamsville system scanned images

- Detail Enter: users can type in a detail location to see its scanned image displayed

- AS400 Tool: Clicking on a water asset feature or parcel displays hydrant, valve, or pipe information on a menu similar to an AS400 Green Screen

- XY Tool: Display clicked coordinates in Western New York State Plane (NAD83) Coordinates, as well as latitude and longitude

- Google Street View (developed by Matt): click on a point on the map, near a street, to view a popup window displaying Google Street View imagery from that location

- Bing/Pictometry Tool (Developed by Matt): click on a point on the map, to view a popup window, with controls, of the Pictometry Oblique aerial imagery at that location (if it exists)

- Detail Text/Email Tool: This tool allows users to select a detail, to send to a user in the field, for access on their mobile devices, via email, or text.

- Custom Address Geocoding: This tool uses a custom geocoding address locator that allows the user to enter a service area address, and zoom to that location

- Zoom To Menus: Zoom to predefined areas of interest, including
    - Erie Co. Municipal boundaries
    - 400' Plate Boundaries
    - ECWA Facilities (Tanks and Pump Stations)
    - Pressure Zone areas

- Legend Functionality: The ability to change water main and facility legends in the ArcMap Table of Contents to be drawn by a variety of different colors and attributes

 Our suggested path forward with this functionality is:

- Review the need for each of these tools with the ECWA GIS and department teams. Some functions may no longer be relevant (such as the Williamsville tool, or the AS400 Green Screen Tool)

- Examine the possibility of a "Green Screen" menu type tool to pull information out of Cityworks. The green Screen tool was originally created to allow users to quickly view data from the AS400 in GIS. Even though users could access AS400, this was a time-saver, by allowing quick access to info without having to start a whole AS400 session. There may be value in doing the same for data stored in Cityworks. Cityworks data is stored in Microsoft SQL Server on the same servers as GIS, and with our teams previous work with those tables, this would not be difficult to implement

- ArcGIS Pro. With ECWA's eventual migration to ArcGIS Pro, these tools will need to be developed in that new desktop software. This can be readily done with the ArcGIS Pro SDK for Microsoft .NET. Our teams experience both with Pro, and this toolbar, ensure that this can be done efficiently.

- Links to Data Visualization. As ECWA expands its use of data analysis and visualization software, this toolbar can also link to these data visualizations by opening GIS data in software such as Tableau Server.

The ECWA ArcGIS Toolbar was developed by Greg and Matt, and features a wide variety of functionality and short cuts for the GIS user.

2.5.2 ArcGIS Desktop "Editor Toolbar":

Custom build Editing capabilities were originally developed by Greg Coniglio using ARC/INFO Workstation AML code. When Esri released ArcGIS Desktop (ArcMap), Greg re-designed these tools using ArcObjects, so that the ECWA Engineering and Design groups could use ArcMap to edit GIS asset layers. The main features of this editor toolbar and menu are:

- Streamlining of starting, saving, and closing edit operations

- Data attribute menus specifically designed for ECWA workflows

- Auto fill-in of geographic fields to save ECWA Editor's time (I.e. filling in municipal locations, using ECWA nomenclature, automatically, I.e. "DPVL" for "Village of Depew"

- Auto suggesting "Real Grid" based on ECWA grid system based on the location of the asset.

- Extensive use of drop-down lists based on ECWA codes, to eliminate the chance for typos, and make data entry easier. This also at the time facilitates upload of GIS datasets back in the AS400 power system- since fields already met QC requirements (I.e. picking from a list of Kfeat values such as "31 - Stop/Curb Service")

- Streamlining processes such as 'abandoning a main'

- QA/QC review checks by comparing the data entered in one field against another to make sure the data together makes sense.

- Cascading dropdowns: Selecting certain valve types will auto-populate certain other fields and make them non-editable as there can be only one valid value when that valve type is selected

- Any field that has a domain (list of valid values) in its attribute table is now a dropdown, to eliminate typos. Any form text box that is for a numeric field has been restricted so that only numeric keys will be accepted. Any date attribute (I.e. date of hydrant painting, etc.) is now assigned via a date picker control.

More recently, Matt Malinowski took control of the maintenance of this application, and added new features. When ECWA migrated to the use of Cityworks, this caused significant changes to the GIS database schema. Matt, redesigned the Editor toolbar to match Cityworks new schema.

Our suggestions moving forward:

- As with other tools here, an evaluation of current functionality. Are there any reviews, or other features that could be added to further streamline workflow, and provide data accuracy?

- Like the ECWA ArcGIS Toolbar, we should consider migrating this to ArcGIS Pro using the "ArcGIS Pro SDK for Microsoft .NET", so that Editors can take advantage of that environment once migration has occurred.

The Valve Editor Menu was designed by Matt and Greg to assist ECWA in populating its valve attribute information in an efficient manner.
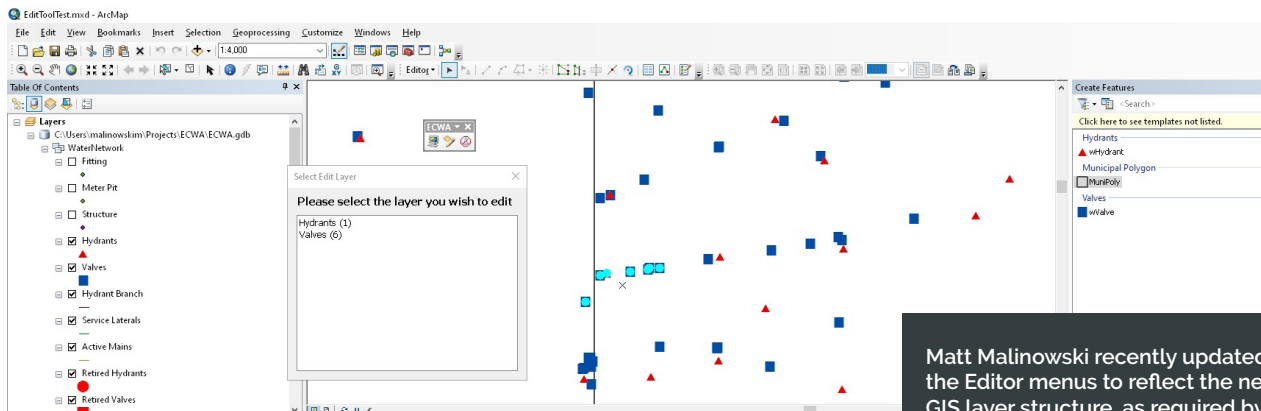
Matt Malinowski recently updated the Editor menus to reflect the new GIS layer structure, as required by the change to match Cityworks database schema.

2.5.3 Nightly Download:

This is another application we have developed for ECWA that has a long history. The nightly download runs automatically each night at 1am, exporting GIS asset data from the ArcSDE Enterprise Geodatabase into a File Geodatabase, which enjoys wider distribution. As time has progressed, this application has been migrated from a Visual Basic executable, into an ArcPy based Python script. It also has seen additional functionality added. The main tasks fulfilled in this download are:

- Export of GIS feature classes from ArcSDE into a File Geodatabase, on the more accessible Y: drive

- Export of business data on hydrants, valves, and pipes from the AS400 Power System into a CSV format

- Joining the above-mentioned Power System tables to the GIS feature classes based on the asset's ID

- Reading the information on Employee locations added to the export recently by ECWA IT and incorporating that information into GIS for incorporation into the ECWA Web GIS "Employee Search" tool

- Periodically (weekly) compresses the SDE geodatabase

Our suggestions moving forward:

- The Nightly Download has served ECWA well for years. It is worth investigating what additional functions may be added to it to assist with nightly or weekly 'housekeeping'.

- Because some asset data has moved from being maintained in the Power System, to Cityworks maintenance. If standalone Cityworks data screens are desired in GIS, for those without direct access to Cityworks, the nightly download could have a nightly extract of Cityworks data added

- QA/QC Review. The nightly download could potentially have automated data review routines added to it. These routines could scan for missing or out of range attributes, scan for features outside of typical boundaries and perform spatial data checks (I.e. are all hydrants listed as within Orchard Park within that town), etc. When an error occurs, the chance to fag and properly correct is greatest when one does so as soon as possible after it is entered.

- Periodic Backup: Previous versions of the Nightly Download did have an extra File Geodatabase saved in a dated folder structure to maintain backups. This should be continued, to assist with the option of 'rollback' if it becomes necessary to seethe state of the GIS asset feature classes at a particular time. For example, the download may be configured to do a full backup each first of the month. This can sometimes be an easier way to retrieve data versus SQL Server rollback and restore operations. This periodic backup could also be used to provide a backup data set into ECWA"s Emergency Operations protocols, such as being copied onto offline laptops.

- Periodic Roll up of Asset Data. As ECWA gets further into using data visualization and data analysis in its business processes, it may also be worth having a history of key asset data to analyze and chart. For example, the download could periodically export to a table data such as the number of work orders for that time period, the number of active mains, the number of new active mains in that period, customer shutoffs, etc. This data being automatically exported could eliminate manual steps that would be needed to feed Tableau or other data software dashboards showing business trends.

2.5.4 ECWA GIS Web Tool:

This is a newer tool for ECWA, which was implemented a few years ago when ECWA acquired its Azure instance, and thus ability to host an ArcGIS Enterprise Server site on that platform. From our staff, Matt Malinowski was part of the web development team that created this tool, and thus has the specific experience needed.

The ECWA Web GIS tool significantly expanded ECWA staff access to GIS, both in the office and in the field. The app was developed using the Esri ArcGIS Server JavaScript API, and also developed 'responsively', to make it easy to utilize both on desktops, and mobile devices such as Android and iPad tablets. This progress represents a solid framework on which to build

Our suggested path moving forward:

- Meet with ECWA GIS staff and business leads to discuss the application, as it currently stands, and potential paths forward. Determine which tools may no longer be needed, and whether additional tools may be useful. Some suggestions may include

- A more closely linked integration with Cityworks. Allow users to select on assets within the ECWA GIS Web Tool, and utilize the Cityworks API to open up Cityworks to information about this asset (work order history, other information, etc.)

- Closer integration other tools. Depending on the APIs, and availability of web services, spatial data from ECWA's AVL, and Vehicle Routing systems (Seon) can be displayed on the web map. This would enable those outside meter shop, without access to those specific software platforms, to view features like current vehicle locations, the day's software suggested truck routes, and locations of customers being services. Note: This data, along with any suggested addition, can be restricted via login to only those

suitable to view the data. For example, the AVL routes can only be made available when a manager is logged into the ECWA Web Tool

- Closer integration with other datasets and tools. Now that many systems are hosted on the same server platforms, with data commonly stored in Microsoft SQL Server instances, the opportunity is there to better link from Web GIS to these programs. For some examples, users could click on a parcel in the web tool to access its financial and account data from the Power System through a link to open a Power System window.

- The website is currently using Version 3.26 of the Esri Arc Server JavaScript API. Examine with the ECWA GIS staff whether any of the additional capabilities of JavaScript API version 4.15 (the latest version) are applicable, and should be integrated with the web tool. Some potential improvements include an improved map and layer drawing rendering experience (up to 50% faster in some cases), more photo attachment support, clustering of point layers for easier viewing at smaller scales (I.e. cluster multiple valves into one large symbol until zoomed in), and better/more 3D visualization tools.

- Integration with data visualization web tools (such as Tableau Server, or a variety of JavaScript charting tools). Users could click on the Web GIS tool to bring up a data analysis and charting for things such as – consumption and account data on a parcel, trends in pressure and flow testing numbers on hydrants, number of work orders on a pipe/asset, etc. Our team will work with ECWA to determine what tabular data may benefit from being displayed this way.

- Legend Improvements: On the ECWA Desktop ArcGIS Toolbar, users can use commands to change the colors and symbology for a few key layers (water mains, valves, and hydrants). For example, this function can automatically change water mains to be viewed by their: pressure zone, year built, or change hydrants to be drawn by their: Last flow test water pressure, hydrant make, year built, etc. If desired, we could implement similar functionality on the ECWA Web GIS Tool;

- In the portion of this text about Desktop Apps, we discussed the possibility of the Nightly Download tool creating new extracted tables from other ECWA systems (Power System, Cityworks, etc.) to join to GIS feature classes for those without direct access to those systems. This is an approach similar to the "Green Screen" GIS tool that was developed awhile ago. If we implement this for desktop GIS, this approach could also be applied to the Web tool, and a new attribute menu added to the ECWA Web GIS tool
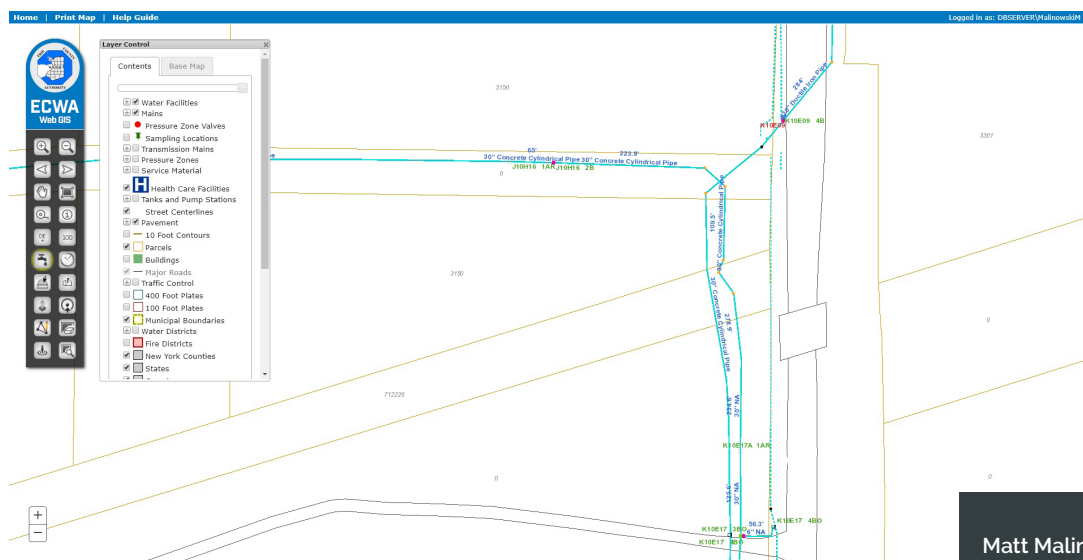
Matt Malinowski assisted with the application development of the currently used ECWA Web GIS Tool

2.5.5 Mobile Development:

One of the most noteworthy developments in technology over the past 5-10 years has been the dominance of mobile devices. This trend has also been evident at ECWA, with the use of tablets and personal phones for field collecting and entering of information by multiple ECWA groups.

Our team assisted with one specific major item… The ECWA Web GIS tool was built "responsively" to be user friendly on mobile devices. The website detects the user's device, and browser, and wherever possible, adjusts accordingly. This approach should be taken for any additional websites created as part of this program (whether they are GIS or data analysis)

Our suggested approach:

- Ensure that the responsive approach is working, and if needed, make any enhancements to the code to insure it's completely responsive

- Identify new mobile apps that can streamline efficiency, and more easily provide information to those on the road, or not at their workstation/laptop. For each of these use cases, our team will scope the need, evaluate existing configurable applications, and/or provide a level of effort for developing custom code. Often, configurable apps are now readily available from Esri's App Marketplace on ArcGIS Online. We will review this source for ready-made potential solutions

- Dating back as far as 2012, Greg Coniglio developed a simple tool that would text/email a detail sheet to a mobile user. With the assistance of ECWA Data Processing, who placed the detail PDFs into an available online folder, he built a simple web app for entering a detail sheet, and viewing the PDF. Matt later incorporated this work into the ECWA ArcGIS Toolbar. This should be updated to Pro, and incorporated into the ECWA Web GIS tool. A simple app like this may still be useful for when a field worker just wants to view a detail quick, without having to open Cityworks, or the web GIS tool.

- Investigate whether we can develop any simple to use mobile data screens to view / edit (with proper permissions) Cityworks data. This approach may also approve workflows, in situations where opening Cityworks on a mobile device is cumbersome, or takes a long time, and the user only wants to see quick info. Matt Malinowski has experience with the backend database structure of Cityworks in SQL Server, so has the experience to develop such a solution.

2.6 Integration and Software Support

Understanding:

LaBella DIG understands that ECWA utilizes quite a few different systems to manage a diverse set of needs. GIS is not a replacement for these systems, but rather should work in tandem with those systems, sharing data back and forth as needed. With our previous ECWA work, we have experience working with all these systems. That makes our team the ideal choice to ensure that links and connections between GIS and other systems remain in place, and that new links are properly implemented.

2.6.1 Integration with AVL (Automatic Vehicle Location) Data:

We propose to work with this system, utilizing its Web API, to make an AVL layer available in other locations. The consumption of a web mapping service from the AVL would make the current vehicle locations available on ArcGIS Desktop, and/or the ECWA Web GIS Tool. As with the Employee Search tool, we could implement this using the "Managers" Windows Active Directory group to ensure on the appropriate people can see the layer.

2.6.2 Integration with Cityworks:

As mentioned earlier, our team (Matt) has previously worked with ECWA IT to build T-SQL queries on

Cityworks back end data tables. LaBella DIG can build on this experience to further integrate GIS and Cityworks using it's backend database schema. One such suggestion, mentioned above, is to develop 'quick' menus showing Cityworks information about assets, work orders, etc, that read these SQL tables, for quick output in ECWA GIS desktop, web, and mobile applications. Like the previously developed "AS400 Green Screens", this approach may allow users to quickly get simple, necessary data, without opening up the full Cityworks application.

2.6.3 Integration with AS 400 Power Systems:

Our team has decades of experience working with Power System integration. As early as the late 1990s, we worked with ECWA Data Processing, and Hi-Tech Services, to extract the HIMAST, VIMAST, and PIMAST tables from the Power System nightly, for joining to GIS feature classes. That integration has continued since then, and updated to feature additional data, such as the Employee location data. We can work with ECWA IT to further pull from the AS400, pulling Financial and CIS data to attach to accounts and parcels. We can also investigate further integration with Meter Reading systems. Our team has previously worked with ECWA IT and HTS to create a GIS point feature class with a point for each customer location. This was done in ArcGIS through an interactive process beginning with python scripting, and ending in manual review and placement of difficult points. The resulting point dataset was exported to Excel and passed back to IT for inclusion in Power System (with each point now having latitude/longitude coordinates). This was used to populate in the Meter Shop's Neptune machines. We will work with ECWA IT to further tighten this process, perhaps exporting coordinate values directly into their Power System from SQL Server.

2.6.4 Integration with Other Systems:

As ECWA modernizes and rolls out additional software solutions, we can work with each one to identify possible reasons for integration, and develop a scope and work plan. One potential integration is the SCADA system, which was recently updated to a Windows and SQL Server based system. It may be advantageous to ECWA GIS users to be able to click on a tank or pump station in GIS, and see it's SCADA details.

For each of these integrations, we recommend a data analytics approach, in addition to just GIS. Integration with other systems should be considered even if our output is a data visualization screen using Tableau Server, or similar software, and not spatial GIS data. For example, financial data from Cityworks or the Power System may lend itself better to a charting/data visualization. Some of this approach is discussed below in "Data Visualizations" and "Data Dashboards".

2.6.5 ArcGIS Desktop Support:

LaBella DIG has significant experience assisting both its internal IT staff with ArcGIS Desktop updates (ArcMap and ArcGIS Pro), as well as providing this service for its clients. Part of that includes longtime support assisting ECWA IT with upgrades, and license management for its own suite of Desktop licenses.

2.6.6 ArcGIS Server Support:

LaBella's DIG team has significant experience setting up their own ArcGIS Server instances, and also offering this service to clients. Our team has assisted ECWA in the past in set up of servers such as ECWA1GIS, and the Azure instance. This makes our team ideal to continue this support moving forward.

2.6.7 Esri Software Installation and Updates:

As mentioned above, our team has significant experience assisting ECWA IT with software installation and updates. This has included

- Assistance obtaining and implementing single-use and concurrent Esri licensing

- Updates to ArcGIS Desktop, ArcGIS Engine, and ArcGIS Server/Enterprise

- Assistance with Microsoft SQL Server updates and ensuring that ArcSDE databases migrate properly to new servers and SQL instances

- Assistance with updating laptops with newer GIS feature classes

Our team is available to continue with this assistance, as well as expand it to include newer software, such as data visualization and data analysis software.

2.6.8 Migration to ArcGIS Pro:

LaBella DIG understands the importance of keeping up on the latest Desktop software. We are also currently undergoing a similar transition ourselves. Please refer to our section on Custom GIS and Application Training Classes from above for more detail about our Pro experience. Rebecca Smith and Greg Coniglio's experience designing an actual online GIS course on Pro makes our team an ideal fit to assist ECWA with this migration. The main approach to this migration would include:

- Reviewing all custom desktop based code with ECWA GIS experts (ECWA ArcGIS Toolbar, Editor Toolbar, Nightly Download, etc.)

- Identifying what, if any of this code is no longer needed

- Identifying potential new applications

- Our Application Development team (Greg and Matt) determining feasibility and level effort for moving each application to ArcGIS Pro

- Performing the application development necessary

- Training (See Section 2.4)

2.6.9 Seon vMax Compass Logistics:

ECWA has utilized this software for meter shop service call assignment, and more recently, shutoff notifications by Customer Service. The software was originally Esri ArcGIS Logistics route, then US. Computing Compass Logistics, and now Seon vMax Compass Logistics. Our team (Greg Coniglio) has experience throughout in managing the data that is input into this application (street network, etc.), and also writing code and scripts to prepare AS400 and Power System data for input and output from the program (I.e. formatting work order information). This experience makes our team ideal to continue helping the Meter Shop with this tool. A few additional suggestions:

With the pending migration of Meter Shop data to Cityworks, our team can update our scripts (most recently developed as a Microsoft .NET C#.NET executable),, to extract work order data from SQL Server tables from Cityworks, instead of from the Power System. Similar may need to occur with shutdown notifications, because of migration of Customer Service data to Cityworks

2.6.10 WaterGEMS:

Our team has previously assisted ECWA Staff in the preparation of data for use in a WaterGEMS Hydraulic Model. Greg Coniglio prepared water mains, pressure zones, and valves for inclusion into the model. This also involved scripting and data analysis, to incorporate each customer's usage history, and assign that usage to each main. Rebecca Smith also worked with ECWA to QA/QC water mains for inclusion in this model, and create linework representing mains inside plants.

In addition to the LaBella DIG team, Engineer Clement Chung, PE, who is on our proposed team, and his team, has experience with WaterGEMS and would be available to assist our team if needed. LaBella also has staff in the Civil Engineering department in its Charlotte, North Carolina office that are available to assist if needed.

2.6.11 Cityworks:

LaBella's DIG team is familiar with ECWA's Cityworks implementation. Greg, Matt, and Rebecca all assisted

during the implementation, by updating GIS data to match the newly required database schema, and also re-programming and configuring existing tools to match Cityworks' schema. Our team also worked with ECWA IT to process Cityworks data directly from its backed SQL Tables. If required during the project, we are available, to continue working with ECWA to further integrate with the Cityworks application, and its data.

2.7 Additional Opportunities

Understanding:

The comprehensive list above indicates the lengths to which ECWA's GIS program already serves multiple business needs. However, as technology advances, there are always potential new and improved ways in which GIS, and data science, can support ECWA further. The following are additional suggested applications may benefit.

2.7.1 Data Visualizations:

There are additional complementary technologies becoming more commonly practiced that do not always directly involve spatial information (or else it is indirectly joined to GIS Data. This practice, commonly referred to in general as "data science", includes capabilities such as big data analysis, and data visualizations. Data Visualization includes, at its simplest level, charting and graphic, but often includes more complex and effective visualizations of data. It is often most effective when data is complicated, multi-dimensional, and otherwise hard to understand in its raw format. Data Visualization is the main reason that our group is named "Data Intelligence Group", rather than the "GIS Department". It's an indication that our offerings, while anchored on GIS, go beyond traditional spatial solutions to also include these new, broader reaching, data sciences.

Labella is pleased to provide Data Visualization as a service offering. We have produced effective visualizations for a variety of clients and projects. Through innovative use of software and database management our team has developed a number of data visualizations based on a wide range of backend datasets. In order to provide high-quality, useful visualizations we learned how to approach datasets from different angles. Our goal is to answer the questions that are asked of us while at the same time presenting the data in such a way as to prompt you to ask questions you may not have considered yet. We have experience with datasets from many different sources including environmental, water monitoring, and budgetary projects. This range of data experience enables us to quickly and efficiently analyze datasets to generate level of efforts and ultimately produce the most useful and insightful visualizations.

The core functionality of data visualizations that we focus on is interactivity. We approach this by essentially boiling the data down to a set of questions that are presented to the user as data filters (e.g. date range, drop down lists, numeric range, etc.). By focusing our analysis on the various backend datasets that the Authority maintains, we feel that we can harness the inherent interactivity of data visualizations as valuable tools. We use several different software packages to provide data visualizations as part of deliverables. These include Tableau Reader, ArcGIS Insights, and ECharts (an open sourced JavaScript Library).

Data visualizations lend themselves nicely to dashboard-style interfaces, and Mr. Malinowski has experience developing dashboards for several different projects. If data visualizations are something that the Authority is interested in pursuing, we can coordinate and determine what are the datasets that lend themselves best to data visualization and what is the most suitable software to use for those visualizations.

Visualizations can be set up by Matt, for display in a server environment (such as ECharts, ArcGIS Insights, or Tableau Server), but also can be packaged and deployed using software such as Tableau Reader. Depending on the complexity of the solution, both options could be implemented.

Some suggested implementations of data visualization at ECWA may be:

- Water Quality data: chemical analyst results

- Consumption data spatially and over time

- Location analysis of lead pipes and services that have been located

- Data analysis of work order and other information within Cityworks

- ECWA Financial information (budgets, revenue, etc.)

- SCADA information (tank levels, real time system usage, etc.)

Data Visualization can also be used to analyze, and display 'business' information that is not necessarily asset based. Organizations routinely use these tools to track their financial health.

Matt Malinowski designed this visualization for LaBella to monitor water levels at a location on the Buffalo River, compared against rain/snowfall events, during the winter of 2019-2020.

LaBella DIG proposes to assist leadership, such as the Executive Director, in using data visualization software to review financial data. The tool can then also be used for output- such as internal presentations about budgeting, finances, etc.

DIG already assists LaBella internally with this type of task. Matt Malinowski works with Civil Engineering leadership, for example, to provide monthly updates on sub-groups revenue, utilization, and updated budget forecasts. We propose to do the same for ECWA.

An example financial visualization Matt Malinowski prepares for LaBella's Civil Engineering Division. This dynamic example reports monthly changes in net revenue for each sub-group within the division, compared against forecasted revenue, and projected backlog.
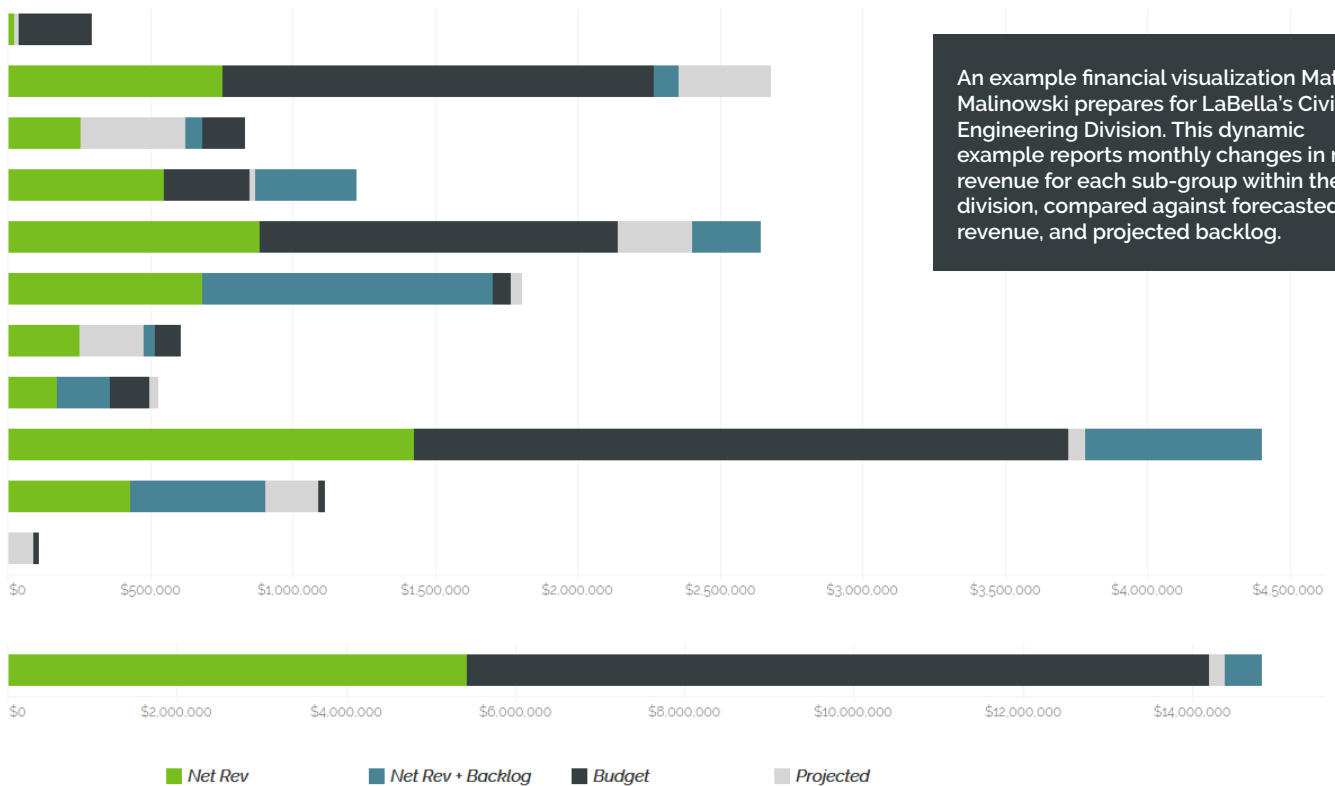
2.7.2 Dynamic Dashboards:

Understanding:

ECWA's existing GIS database houses a tremendous amount of valuable information about its assets. Additionally, valuable information exists within each department that can be used to evaluate the health of each ECWA business unit. Getting the right information into the hands of decision-makers in a usable and easy-to-read format is something that LaBella's DIG team can provide for you, though not only GIS, but also Data Visualizations, and the concept of "Dynamic Dashboards"

Approach:

LaBella's team proposes to develop custom "Dashboards", tailored to display the unique data points that department heads require to make informed decisions. ArcGIS Dashboards enables users to convey information by presenting location-based analytics using intuitive and interactive data visualizations on a single screen.

ArcGIS Dashboards are a view of GIS, offered by *ESRI through its ArcGIS Online Organizational Account capabilities, They feature an Esri based web map, of course, but can also display, next to that, associated text, charts, and other visualizations. Esri Dashboards (in conjunction with ArcGIS Hub) have been common in the news recently, as many regions have utilized this resource to update the public in their area about the spread of COVID-19. There is some overlap with the Data Visualization item above, but these dashboards are a specific feature of Esri we're recommending. ECWA already has the capability to deploy one of these, through its ArcGIS Online organization.

A review with ECWA staff can determine the optimal data points that would go on an "ECWA Operational Dashboard". There could even be multiple versions, for different departments, for the public, etc. Data for this dashboard could be pulled from GIS, from Cityworks SQL Server tables, AVL and Seon, and from the Power System (and maybe SCADA?). Data points could include:

- ECWA Assets and GIS Basemap as a backdrop

- ECWA Vehicle locations via web map service from AVL

- Planned service routes, and service calls, from Seon

- Number of active work sites and staff in field from line maintenance, meter shop, restoration, etc. (CityWorks)

- Current and recent leaks

The proposed conceptual ECWA Dashboard may end up looking similar to the example below, created by Esri for Homestead AFB in Florida.

2.7.3 IoT Asset Tracking Technology:

Understanding:

There is a real benefit to knowing where valuable equipment is in real-time. Inventorying and mapping *non-stationary, portable assesses* that are related to pump stations and water treatment plants, such as portable water pumps, motors, generators, etc. presents a unique challenge. These assets are not tied to any one geographic location, but rather they can be moved within ECWA's territory.

Approach:

LaBella proposes to investigate options for inventorying, tracking and integrating ECWA's non-stationary assets into Cityworks and ECWA existing robust GIS.

One example that is certainly worth investigation is auto-reporting water meters. These devices can utilize wither WiFi or cellular networks to periodically report water consumption back to ECWA's servers. This eliminates any need to send staff out to collect this information, as is currently done.

The example below was developed for a project for a nuclear power plant in Florida (Matt Malinowski). The Tableau data visualization takes in and displays water salinity around the facility in real time. This is done via. "iOT" devices placed in the water at areas near the plant. The graphic depicts change in salinity in time over the past few years. This data is updated to their SQL Server database every 15 minutes.

LaBella DIG also suggests that we investigate the use of IoT, bar codes, and RFID scanners for asset tracking. With so many different locations, the tracking of moveable assets between Sturgeon Point, Van De Water, the Service Center garage, etc. These assets can be tagged with bar codes, and scanned to update location. (RFID devices can also scan the room for the presences of these devices). Through searching for an appropriate app and configure it, or developing tools, we can then assist ECWA in inventorying the location of these assets (perhaps through Asset screens in CityWorks)

Average Salinity

Max Validated Date: 11/05/2019 00:00
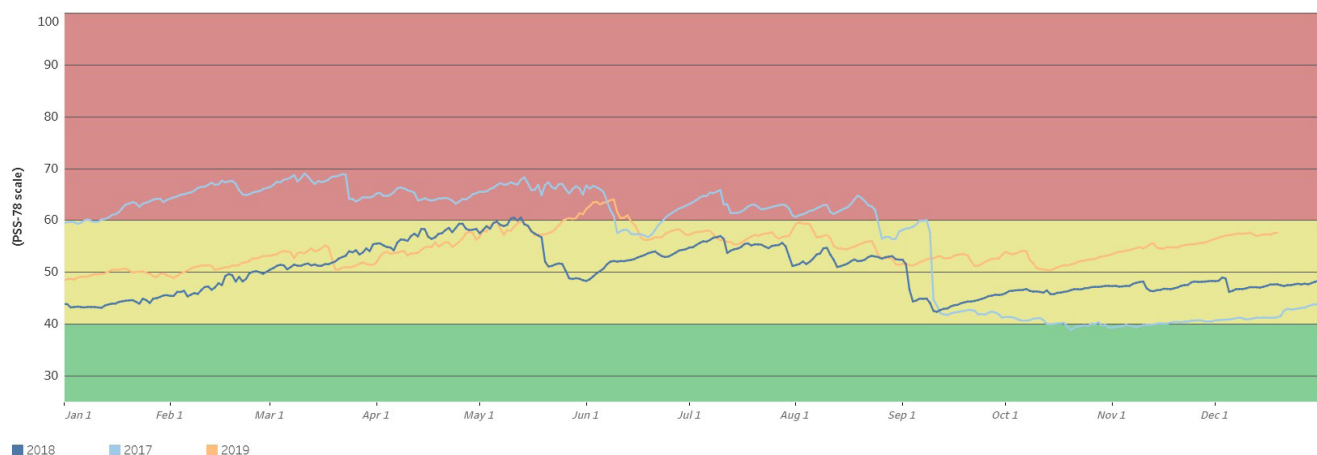
2.7.4 Customer Involvement – Problem Notification:

Understanding:

Customers are often the first line of defense in identifying and fixing issues with a utility's assets. They are at home, at work, or traveling and are very likely to be the first to notice an issue. ECWA can leverage this by making it easier for the public to report an issue.

Page 51 of 93

Approach:

Our suggestion involves two possible approaches (utilizing both are possible also)

1. Social Media Tagging. Social media has become a popular way in which to both share information with the public, and also allow them to notify the authorities of issues. The National Weather Services uses Facebook and Twitter, for example, to collect storm report info. Esri ArcGIS Online has the "Public Notification" configurable web app, that can be setup to monitor Social Media. if users tweet with specific keywords or "hashtags", the app can monitor this. ECWA could ask the public to tweet a photo of a water main or hydrant issue, for example, with the #ECWA or #WaterReport hashtags.

2. .Custom Web/Mobile App: Our team can also develop a simple app that users can have on their computer, or on their phone, to submit an issue, with location and photo. The app can be configured to send an e-mail to the appropriate parties at ECWA about the issue. The locations (in both cases) can also be saved to a feature class in ArcSDE for mapping and data analysis (I.e. searching for trending problems), and also to make sure issues are tracked and come to a resolution.

2.7.5 Customer Involvement – Outage Notification:

Understanding:

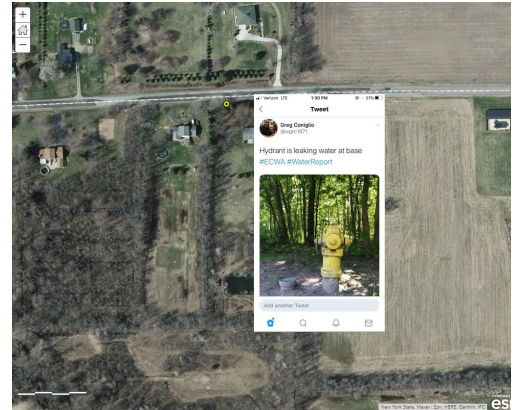Customer services is one of the seven key points adopted in the ECWA Strategic Plan. We can use technology (another strategic point), to assist in alerting the public when an outage occurs. ECWA already uses Social Media, such as Twitter, to tweet updates during a crisis, but can utilize mapping to more clearly indicate outage areas to its customers

Approach (Public Notice through Web):

ECWA can utilize its ArcGIS Online Organizational account to fairly easily add this service to its offerings. ECWA could then host this ArcGIS Online web map to the public, and post links to it, when there's an event, on its Social Media.

1. Work with ECWA to develop a highly sanitized system map that would be appropriate for public consumption (likely no asset mapping at all, but rather generalized water district and server area locations)

2. Create a template "outage area" GIS feature class in ArcSDE

3. During event, ECWA GIS staff traces an outline of the affected area, and updates the web map by republishing with the updated polygon.

4. Provide link to the ArcGIS Online map on Social Media

Approach (Public Notice through Direct Contact):

Our team is aware that ECWA IT has been capturing and storing, where it has been provided, contact information for customers and accounts. Where we have it, they have been saving information like phone number, cell number, emails, etc. Into the Power System. That data is not complete, but continues to be added to as time goes on, and becomes more complete.

Our team proposes to integrate this growing database with the polygon outage tools mentioned above. We can develop a routine, in ArcGIS Server in the ECWA Web GIS Tool, or ArcGIS Desktop (ArcMap/ArcPro), or both, that:

1. Uses the polygon to select all customers within the outage (using the Customer Points GIS feature class previously created)

2. Extracting the account numbers from these points, and sending this to the Power System

3. The Power System can then use this data to query any contact information for these customers, and send notices.

2.7.6 Trace and Isolation Tools:

Understanding:

Our team has previously assisted ECWA with researching isolation and trace tools to implement. This type of GIS analysis can be used, to trace along a water network, when a leak is reported, to identify which valves need to be shut off to isolate this leak. It then highlights the leak and indicates what mains and customers are out of service.

Approach:

In 2017, Greg Coniglio worked with ECWA GIS staff to investigate the Esri ArcGIS Desktop add-in developed and distributed for this purpose. We recommend continuing this work to implement this tool for ECWA Desktop users.

In the meantime, Esri has also released similar web-based functionality in its ArcGIS Online based "Water Outage" tool, as part of its larger "ArcGIS Solutions for Water" suite. This tool should also be analyzed, as it would be available to ECWA via its Organizational account.

Esri's online "Water Outage" tool is an example of a configurable app that is worth investigating for Trace and Isolation queries.
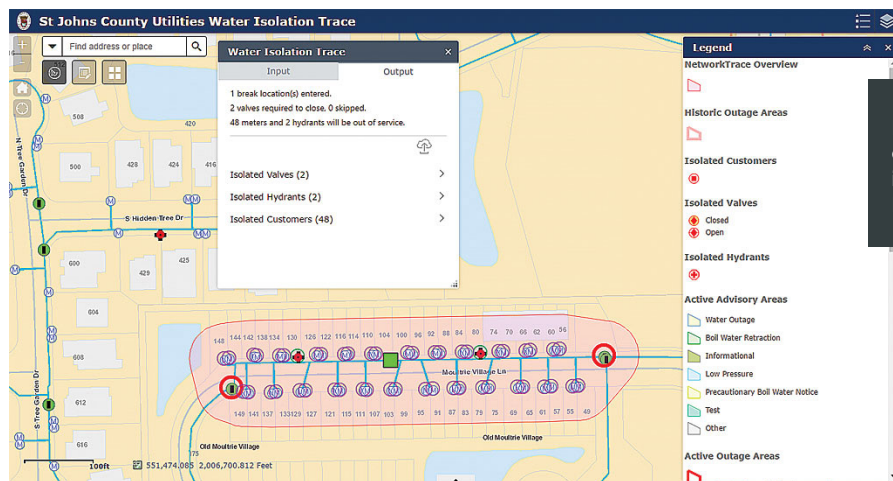
2.7.7 Additional Esri Web App Configurable Tools:

Understanding:

Our team recognizes that additional web mapping applications or capabilities, beyond which what is identified here, could benefit ECWA. Esri has developed hundreds of pre-created web mapping applications, and templates. Many of these can be deployed with minimal configuration. ECWA, through it's ArcGIS Online Organizational Account, can very possibly leverage one or more of these solutions.

Approach:

Early in the project, we recommend reviewing the possible applications and templates (within the Water Solutions Network for sure, but also beyond this in general), to search for any potential applications to add to

LaBella DIG used this Esri Web App with the Town of Victor, NY to assist in reviewing their storm water assets, including photos, online. LaBella assisted the Town by field mapping the Town's storm utilities.
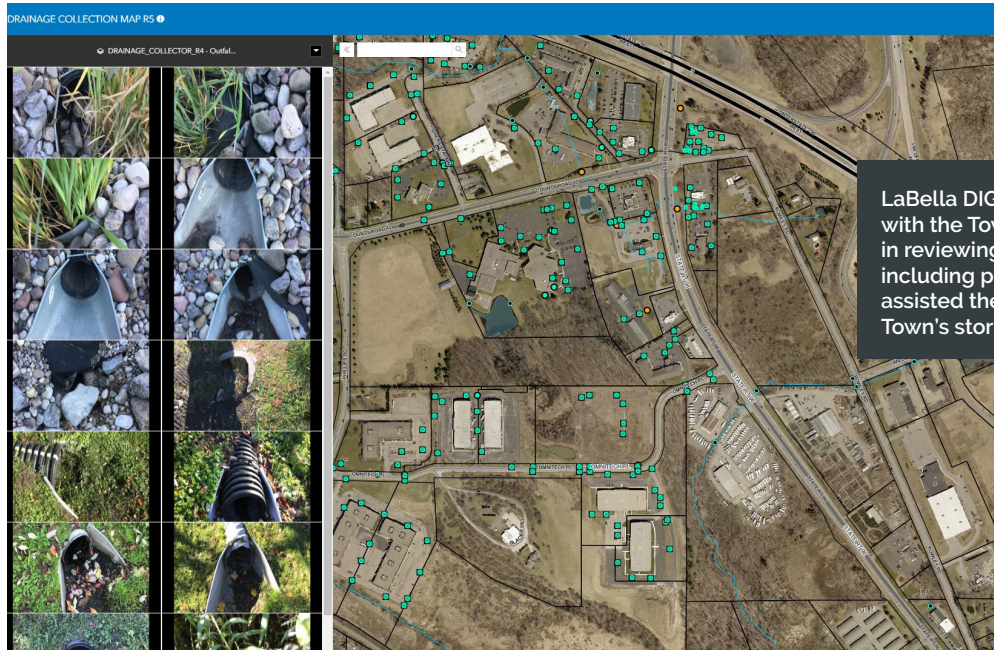
ECWA GIS's web mapping presence. For each one of interest, we can work to provide an LOE (along with any other potential issues), with deploying the web app.,

2.7.8 Additional Ad-Hoc Mobile Data Collection Tools:

Understanding:

ECWA was an early adopter of "Mobile GIS", dating back to the Late 1990s. This took the form of Laptops, with local versions of GIS software and data, so that field workers could access data remotely. As technology has advanced, ECWA is already migrating to utilizing mobile devices such as smart phones and tablets to view information (such as the ECWA Web GIS tool). With the deployment of CityWorks, ECWA has started to update information, such as Work Order info, remotely, using their mobile app. ECWA has also utilized Esri ArcGIS Collector to capture additional information:

1. Curb Box Tool: This ArcGIS Collector app displays the GIS Customer Service feature class,that our team (Greg) previously created. This is a spatial point indicating the service point for each customer. Field teams can use this app to locate the point in the field. Since some of these points were created automatically through scripting, they may in some cases need editing. Field crews can leave a comment on the app for the ECWA GIS team to move to the proper location.

2. Leak Database Tool: Prior to the implementation of this tool, ECWA relied on sometimes incomplete address information from the Power System, to be geocoded. This could sometimes result in a leak point location that is thousands of feet off. This would also risk the leak being 'attached' to the incorrect pipe. With this ArcGIS Collector app, leak crews can use their Android tablet with Collector, with data location improved with a Trimble R1 GPS Bluetooth device (1-3 feet), to record the exact location of the leak.

Approach:

With our team's expertise with those tools, we are certainly available to continue to support these applications. Our team also has created many applications using Esri ArcGIS Collector, and recommend a meeting with the GIS team at ECWA to identify any additional potential opportunities.   Our team at LaBella also utilizes ArcGIS Collector, in conjunction with an Arrow EOS Gold GNSS/GPS Device, to obtain, under

ideal conditions, around 1cm horizontal accuracy with Collector. This has allowed us to utilize the user friendly capabilities of Collector, and still collect very accurately placed asset data.

LaBella has also been utilizing Esri's Survey123 to aid in the collection of field utility data. The menu structures available in Survey123 allow for more complex data entry parameters when needed. With Survey123, we can more easily create drop down lists of values, but also build 'cascading dropdowns', and have the values in one field affect the availability of options, or visibility of additional fields. For example, if a user enters "Cheektowaga" for municipality, the Water District dropdown could be limited to only water districts within CHTN. If a user indicates "None" to a "Flow test" field, a second field to enter the flow rate could become invisible. This capability more closely resembles the Desktop Edit Tools that Matt and Greg have worked on for ECWA. We suggest a review of mobile collection needs to identify appropriate uses of Survey123. The above two apps may be better served as Survey123. Additional applications, such as field updates to the GIS feature classes similar to the edit tool's capabilities, may be beneficial. Both ArcGIS Collector and Survey123 can be deployed selectively to update GIS and asset data remotely, where it makes sense to augment the mobile editing capabilities of the CityWorks app.
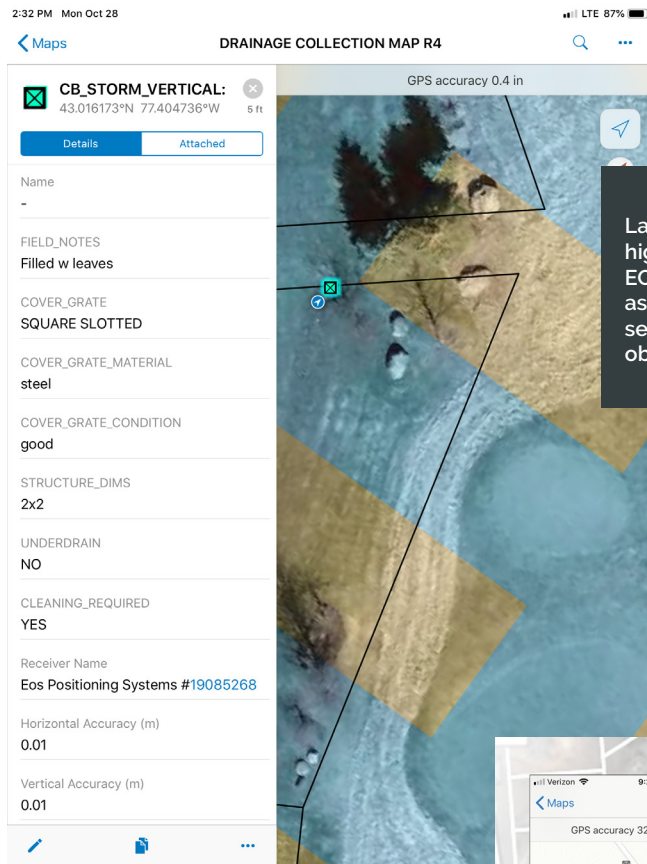
LaBella is using ArcGIS Collector with high mapping grade accuracy Arrow EOS Gold GNSS Bluetooth devices to assist the Town of Victor in managing its sewer assets. Note the high accuracy obtained in the capture of this feature.
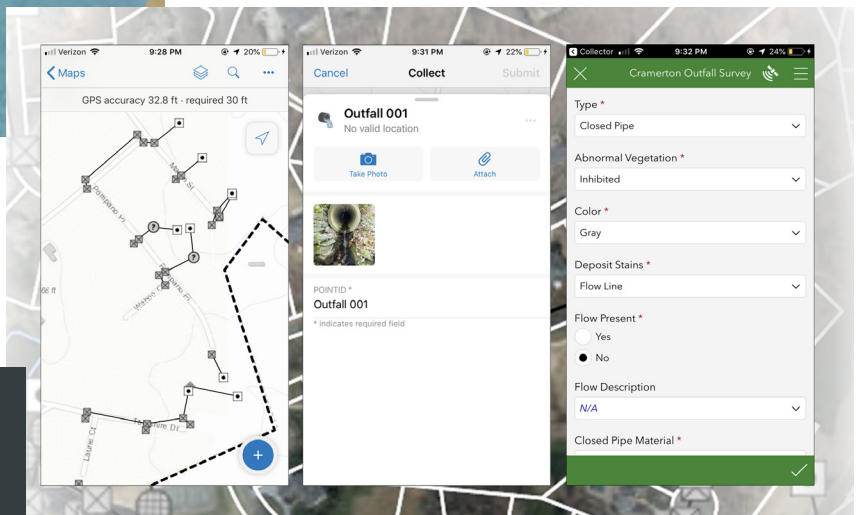
LaBella is using a combination of ArcGIS Online, ArcGIS Collector, and Esri's Survey123 to assist the Town of Cramerton, NC in collecting its storm sewer asset data.

2.7.9 Supporting the ECWA Lead Remediation Program:

Understanding:

ECWA has been working over the past few years, based on guidance from the New York State Department of Health, to identify, and remediate, the presence of lead services within its Customer Service Area. This program targets lead in services and pipes both in ECWA assets, and also on the customer's side. Our team has previous experience (Greg, Becky, Matt), reviewing existing data from the AS400 Power System, for previously indicated detection of Lead, and development of maps and visualizations to review this data with the ECWA Lead Task Force. We used both ArcMap for mapping results, and Esri ArcGIS Insights for data visualization.

Approach:

Given our teams experience with ECWA's Lead Task Force, we are ready to continue that work with your group, and integrate additional data that has been collected. (such as new data collection entry fields for lead detection added to the CityWorks web and mobile apps).

Our team now has the added advantage of having a Subject Matter Expert in Lead in Drinking Water Remediation. Clement Chung, PE, is an Engineer in LaBella's Civil Engineering group, with significant experience in this area (as well as other chemicals in drinking water issues, such as PFAS, etc.). His bio in Section 3 of this response, and his attached resume, detail his significant experience in this area.

As a part of our proposed team for this Project, we can leverage the subject matter expertise of Mr. Chung and further identify how we may use GIS, and Data Science, to support ECWA's Lead Task Force.

PROJECT
STAFFING

LaBella
Powered by partnership.

3. PROJECT STAFFING

LaBella's Data Intelligence Group is based in Western New York, and has skilled GIS staff located in both the Rochester and Buffalo, New York offices. LaBella's large, diverse Data Intelligence Group, is uniquely suited to serve ECWA in continuing the growth of its GIS and data analysis endeavors. These benefits include :

- Large, locally based staff and management, meaning the ability to provide a wide bandwidth to meet ECWA's needs,

- Staff that is very familiar with ECWA Operations. Our core team has over 40 years' experience providing GIS services to ECWA, and our DIG team has 80 years' experience in the GIS field. This is likely more experience with ECWA GIS than any other team.

- Integration with other related disciplines at LaBella (Civil Engineering, and Lead in water programs). The combination of existing ECWA experience with this additional subject matter expertise is a good synergy between ECWA knowledge and new/fresh ideas

- Our team also has 6 years combined experience in the related, emerging "Data Visualization" field, providing data analysis services, visualizations and charts, and "dashboards" as part of our DIG offering.

MEET OUR TEAM

GREG CONIGLIO
- M.A. Geography (GIS), State University of New York at Buffalo
- 26 Years Experience
- Extensive ECWA Experience
- GIS experience in project management, implementation planning, application development, GIS Analysis, and field data programs

SARA LOBELLO
- B.S. Geography (GIS), SUNY Cortland
- 7 Years Experience
- GIS data creating, editing and maintenance, cartography and field data programs

MATT MALINOWSKI
- M.A. Geography (GIS), State University of New York at Buffalo
- 15 Years Experience
- Extensive ECWA experience, GIS application development, field data programs, relational database management (SQL Server)

LaBella Headquarters

REBECCA SMITH
- M.A. Geography (GIS), State University of New York at Buffalo
- 16 Years Experience
- Extensive ECWA experience, GIS experience in project management, field data programs, cartography, spatial analysis, and implementation planning

DAVE PAYE
- Associate, Computer Aided Drafting and Design, ITT Technical Institute
- 11 Years Experience
- GIS data creation, editing and maintenance, cartography, field data programs, extensive field work experience
- CADD Drafting (AutoCAD)

LaBella Buffalo Office

ECWA Administrative Office

ECWA Service Center

JOSH ROBERTSON
- MUP, Master of Urban Planning, State University of New York at Buffalo
- 7 Years Experience
- GIS Data creation, editing and maintenance, python scripting, cartography, field data, FAA licensed drone pilot

LaBella Powered by partnership.

LABELLA DATA INTELLIGENCE GROUP GIS EXPERIENCE

Team Member	Total Years GIS Experience	Total ECWA Experience
Greg Coniglio	26	24
Rebecca Smith	16	8
Matt Malinowski	15	12
David Paye	11	0
Josh Robertson	7	0
Sara LoBello	7	0
TOTAL	**82**	**44**

3.1 Staffing Plan

The following section describes both the staff that we will employ on this project, and how they will interact, both within our own team, and with ECWA Staff.

3,1,1 Project Leadership:

Our proposed project manager is Rebecca Smith, based in LaBella's Buffalo office. Ms. Smith has the extensive experience required for this role, in general management of GIS projects, but also specifically with past work with ECWA. She has been a GIS Project Manager since 2012, and was project manager for the ECWA GIS program from 2017-2019. In addition, she worked on specific tasks on the ECWA GIS Program sporadically for the prior decade (2007-2017). Her main duties as Project Manager on this project include:

- Day-to-day oversight.

- Liaison with ECWA staff

- Task assignment, and review

- Status meetings with ECWA (at an interval determined at kickoff)

- Budget oversight and invoicing

- Direct hands-on efforts where needed

Our proposed project director is Greg Coniglio, based in LaBella's Rochester office. Mr. Coniglio is regularly involved with projects in both the Rochester and Buffalo areas, and as a result often travels throughout Western New York. Mr. Coniglio has worked with ECWA for twenty-five years, starting in 1994, and as a result has a deep understanding of ECWA's past, current, and future needs. He will assist Ms. Smith in project leadership, providing general oversight, and also will be available to assist with project management where needed. He's also available where needed to provide hands on technical work, and has many skillsets directly relevant to your needs.

Ms. Smith and Mr. Coniglio have worked together for 16 years, and have collaborated to lead many projects successfully during that time. They also are the leaders of LaBella's DIG team. This leadership offers ECWA a "team approach" to management of your project. They will collaborate to creatively identify the best

approaches to meet your needs, on a variety of tasks, also work to creatively identify new potential uses of data technology at ECWA. The team leadership approach also ensures more continuous access to our management group, as one of us can fill in and be available while the other is traveling, using PTO, etc.

The fact that the proposed leadership of ECWA's project is also our DIG Leadership also further re-enforces that this project is a priority for us.

3.1.2 Lead Application Developer:

Mr. Matt Malinowski will be lead application developer on our team. He will provide most application development services to ECWA, but also will serve as lead technical resource in this area of service. His duties include:

- Assisting both ECWA and LaBella teams on the identification and scoping of new application development opportunities;

- Identifying existing software and hardware solutions that solve a business problem, and readily integrated into ECWA's systems

- Scoping of level of effort for programming needs

- Direct application development

3.1.3 Lead Data Analyst:

Mr. Matt Malinowski will also be lead data analyst on our team. LaBella DIG recognizes the growing interest, and need to utilize data analytics to solve business problems. Our thoughts and ideas on how the ECWA GIS program can utilize data visualization are detailed in the response to Item 2. Providing "Data Dashboards" are one effective way to meet this need. Matt's duties in this role will include:

- Identifying opportunities to utilize data analytics, and data visualization, in various ECWA Business units

- Working with LaBella DIG and ECWA teams to scope these potential opportunities

- Direct Dashboard development using Tableau, Esri Insights, etc. or similar software and technology

3.1.4 GIS and Data Analysts:

Mr. Paye, Mr. Robertson, and Ms. LoBello are available to support the project as GIS and Data Analysts. They have a variety of skillsets that can help to assist on this project. Some of these activates could include

- Assisting ECWA GIS Analysts, with the editing, and maintenance, of ECWA facility layers, by adding and updating data

- QA/QC processes to help review existing GIS feature classes for locational, topological, and attribute issues

- Assisting with field data collection

- Data scrubbing of new external sources for integration with the GIS enterprise geodatabase (Excel tables of employee address updates, Power System records, Cityworks data, etc.)

3,1,5 Other Subject Matter Experts

- LaBella DIG is integrated into the Civil Engineering department, which has other areas of expertise relevant to ECWA's GIS and other programs. These experts, and areas that are anticipated to be of most interest for this program are:

- Lead in Drinking Water Expertise: Mr. Clement Chung has significant expertise with programs that assess lead in drinking water issues. He can provide this expertise as part of our program, working with our DIG team to determine the best ways to analyze data collected by ECWA's Lead team, as well as any other areas where Mr. Chung may help ECWA. He already has experience working with ECWA as the Project

Manager for **ECWA Distribution Mains 2020-1 Contract C (ECWA Project No. 202000067 Contract LA-001) and ECWA Castle Hill Pump Station Replacement (ECWA Project No. 202000046 Contract LA-002).**

- Water and Wastewater Engineers: One of the sub-disciplines within LaBella's Civil Engineering Division relates to Water Engineering. Mr. Chung also leads that group, and has significant experience with water system engineering and design. The group also includes Mr. Don Hoefler, in the LaBella Buffalo office.

3.2 Brief Bios Of Key Staff

The following section provides a brief summary of each key person on our team, summarizing their experience, and how they would contribute to this project.

REBECCA L. SMITH

Project Manager

Rebecca has 16 years experience in the GIS industry, in a wide variety of roles. She has expert knowledge in using Esri ArcGIS Mapping and spatial data analytics software, to provide. She has experience on large GIS projects, including Environmental Impact Studies (EIS), and Federal Energy Regulatory Commission (FERC), for the Department of Defense (DoD), and Erie County Water Authority (ECWA). She has much hands-on technical experience throughout this time, but also has significant experience with project and group management, as well as robust experience with developing field data workflows, task automation, and cartography. She was a co-lead of the "Innovation Technology" R&D group at Ecology and Environment, as well as a GIS Analyst Group leader, and is now the Group Leader for the LaBella Buffalo DIG team. In addition, she has recently co-authored the University of Buffalo's Gold Standard course for online learning through the Department of Continuing Education, developing a Desktop ArcGIS Pro class. Rebecca will be working in a leadership role for this project

ECWA Relevant Project: One of Rebecca's duties in her previous role with ECWA was to develop detailed help guides for the widely used ECWA GIS Web tool. This demonstrates, in addition to her management experience at ECWA, her technical understanding of ECWA's data and tools.

Other Project: Rebecca is currently working with the Town of Cramerton, North Carolina, and the LaBella Charlotte, NC office, helping to design a new GIS program for the Town. The first stage of this work involves the setup of an ArcGIS Online web mapping site of existing Town data, and setting up for field data collection of the Town's Stormwater assets, using ArcGIS Collector and Survey123, with a highly accurate GNSS Arrow Gold Bluetooth unit.

EDUCATION
SUNY Buffalo: Master of Arts, Geography (MA)

SUNY Buffalo: Bachelor of Arts, Geography (BA)

PROFESSIONAL CERTIFICATIONS
GISP

PROFESSIONAL ORGANIZATIONS
NYS GIS Association

Western New York GIS Users Group

GREGORY CONIGLIO

Project Director

Greg has 26 years experience in the IT/GIS profession, in a variety of roles, including hands on technical expertise, system scoping and implementation, project management, business development, and group leadership. His experience also includes hands-on design of technology solutions on desktop, web, and mobile platforms. He has extensive experience with ECWA's GIS program, helping to found it in the mid 1990's, as well as helping it grow through new iterations of technology (internet and web development, mobile data, etc.) He has co-led a business development sector related to finding Innovative and Spatial technology solutions, and is the current leader of LaBella's Rochester DIG Team. He also has been a college level instructor, teaching GIS classes for the past 15 years at SUNY Buffalo, and was an Esri Authorized instructor for 17 years.

Greg will oversee the project, assisting Project Manager Rebecca Smith with management duties as needed, and providing guidance on proposed project solutions.. He will also be available as a technical resource on all areas of the project, including application development.

ECWA Relevant Project: Greg developed multiple iterations of the "ECWA Toolbar", a set of tools designed to help Desktop GIS users with common tasks specific to ECWA (zoom to a specific 400' plate, tank or pump station, locate and view a Detail Image.). The set of code has been redeveloped by Greg multiple times over the last 25 years, starting as an ARC/INFO menu, becoming an ArcView 3 Avenue based tool, utilized in MapObjects and ArcGIS Engine, and now used in ArcGIS Desktop 10.x (and updated by Matt Malinowski

Other Project: Greg has continued to assist clients in the Public Water sector since joining LaBella. He recently assisted the Water Department at the Town of New Baltimore, Virginia, in determining the idea location to place new water wells, and connect them with the Town's existing Distribution and Transmission line network. The project utilized Esri's ArcGIS Network Analyst, to locate the optimal best paths, between finding the shortest paths when proposed wells were near an existing main, to utilizing existing streets as a guide to where new mains to connect to the well would be placed.

EDUCATION
SUNY Buffalo: Environmental Studies Social Science Interdisciplinary (BA), Geography (Minor), Geographic Information Systems (MS)

PROFESSIONAL CERTIFICATIONS
GISP (GIS Professional)

PMP (Project Management Professional)

Comp TIA CTT+ (Technical Trainer Certification)

PROFESSIONAL ORGANIZATIONS
NYS GIS Association GIS/SIG

Western New York GIS Users Group

LaBella
Powered by partnership.

MATTHEW MALINOWSKI

Application Development Lead And Data Analysis Lead

EDUCATION
SUNY Buffalo: Geography (MA), Geology (MA), Geology (BS)

PROFESSIONAL ORGANIZATIONS
NY GIS Association

WNY GIS User Group

Buffalo Tableau User Group

Matt has 15 years' experience in the development of web-based desktop and mobile applications for GIS and other IT based solutions. This experience includes extensive application development using a wide range of GIS and IT tools, such as Microsoft .NET, and the ESRI JavaScript API. He also works with enterprise database technologies and implementing database scheme using Microsoft SQL Server and Esri ArcGIS Enterprise SDE. Matt assists clients not only by programming these tools, but also working with clients to scope and identify solutions to help improve their business processes. Matt is also highly skilled in the development of data visualizations using toolsets such as Tableau, Esri ArcGIS Insights, and various JavaScript libraries.

Matt will assist ECWA, and the DIG team, in identifying and scoping new technology solutions. He will also he technical lead where application programming, and/or data visualization is required. We can also leverage his experience with developing ECWA's existing Desktop and Web tools, where maintenance of those tools is required.

ECWA Relevant Experience: Matt has assisted ECWA extensively with the development of Desktop GIS tools. He recently worked on updates to the "ECWA GIS Toolbar", and also developed the "ECWA Editor Toolbar", which is used to facilitate the editing and maintenance of ECWA Water Asset Network.

Other Relevant Experience: Matt is currently helping LaBella on a project for Empire State Development to document the condition of approximately 900 commercial buildings for the Buffalo East Side Commercial Building Stabilization Program. Our task is to implement a set of field data tools to allow LaBella Planners and Architects to survey these locations using tablets. Matt developed ArcGIS Collector forms to capture this information, which feed data into a web-based tool that utilizes Dynamic PDF to develop 'photo log' assessment pages to assist the team, and to be included in the final report.

LaBella
Powered by partnership.

Josh Robertson

Josh has over 7 years experience working as a GIS professional. He is experienced in using ESRI ArcGIS mapping and spatial data analytics, data management, and mapping for a wide variety of projects, ranging from Environmental Impact Statements (EIS) for large scale multi-state linear transmission line projects, to small scale local habitat restoration studies. He has a thorough understanding of cartographic design principles, spatial data types, GIS database design, geospatial analysis, and metadata management. Drawing upon his background in urban planning, he integrates/ manipulates scientific, demographic, and socioeconomic spatial data in GIS systems, to map site features, and add environmental study information.

Geospatial Analyst
Buffalo, New York

Josh is available to assist ECWA and the DIG Team with GIS data QA/QC and review, data editing and maintenance, assisting Matt with application development and scripting, figure creation, and field work.

Relevant Project: Josh is working with the LaBella DIG and Planning groups for the Erie County Industrial Development Agency (IDA) to identify potential walking trails through the Bethlehem Steel Corridor in Lackawanna and Hamburg. We developed a Python script, that allows the team to dynamically change the potential trail routes, and then have their potential impact (environmental features, land use crossed, etc.) automatically recalculated. This has allowed the team to be able to very easily analyze a variety of potential routes.

Education: B.A. Environmental Design, University at Buffalo, MUP, Master of Urban Planning, University at Buffalo

David Paye

David is a CAD/GIS Specialist at LaBella with 11 years experience. He has experience in 2D and 3D Environmental Drafting, and creating basemaps and figures in AutoCad and ArcGIS Desktop. Dave is also a New York State Department of Labor Certified Asbestos Inspector, Designer, and Management Planner. He has helped clients in a variety of markets, including education, health care, architectural, real estate, and municipal.

Dave is available to assist ECWA and the DIG Team with GIS data QA/QC and review, data editing and maintenance, CADD to GIS conversion, figure creation, and field work.

Geospatial Analyst
Rochester, New York

 Relevant Project: Dave works with confidential utility clients to manage information associated with their Leak Prone Main Program. Gas lines are regularly reviewed and surveyed for the potential for corrosion and leaks, and flagged for repair. He gathers information about this program from a variety of sources, and uses a set of tools in ArcGIS Desktop ArcMap, through a Citrix connection, to help with updates.

Education: Associate, Computer Aided Drafting and Design, ITT Technical Institute.

Sara LoBello

Sara has 7 years experience, both with LaBella, using ArcGIS Desktop, as well as working in the aerial imagery field, using her GIS skills to create production materials for the capture and delivery of imagery warehouses. She also worked in a GIS Group at SUNY Cortland to assist the campus in data collection, cartography, and database management. Her work at LaBella has been focused on the Civil Engineering, and Planning disciplines. She has worked with planning to develop sets of mapping products for Comprehensive and Agricultural Plans, and has worked with Civil Engineering to work with field data, and as built drawings, to develop GIS Storm Water data. She has skilled experience with ArcGIS Desktop, working to

Geospatial Analyst
Rochester, New York

edit and maintain data, review data using topology tools, and develop maps using cartographic principles.

Relevant Project: Sara has worked with LaBella's Civil team on our MS4 Stormwater Mapping Project for the Town of Victor, New York (Ontario County). She works to set up field teams to collect highly accurate mapping grade data using Eos Arrow GNSS Bluetooth devices with ArcGIS Collector on iPads. She has worked then to integrate that data, with sewer main and other information gleaned from

scanned and georeferenced as-built and record drawings, to create a Storm Sewer GIS database for Victor.

Education: B.S. Geographic Information Systems, SUNY/Cortland

Clement Chung, PE

Clem has 20 years experience as a civil engineer in the water and wastewater sector. His background includes design and evaluation of water and wastewater treatment plants, water distribution and wastewater collection systems, groundwater supply, pumping stations, and water storage facilities. He has experience in hydraulic modeling, using software such as WaterGEMS. Clem is also a subject matter expert in lead in drinking water remediation programs. He is available to collaborate with DIG if needed, leveraging his experience on the water main and pump station projects that he is currently working on with ECWA.

Senior Civil Engineer
Rochester, New York

Relevant Project: Clem is the Project Manager for the ECWA Distribution Mains 2020-1 Contract C (ECWA Project No. 202000067 Contract LA-001) and ECWA Castle Hill Pump Station Replacement (ECWA Project No. 202000046 Contract LA-002). Clem is also the Project Manager for the City of Hornell's $6.8M Water Treatment Plant Upgrades project, including storage tank, treatment process, and water main improvements throughout the site.

Clem is currently the Project Manager for planning, testing, and remediating lead in drinking water contamination in buildings, including various school districts across New York State, and the City of Buffalo Water Division.

Education: M.Eng , Imperial College, London, UK, ACGI in Civil and Environmental Engineering

3.3 Workload Forecast

The LaBella DIG team has sufficient bandwidth to support ECWA GIS as a priority project, throughout the proposed three year term. Our team on average has been averaging 20-25% availability each month. We are involved with some projects with extended project levels of effort and timelines:

- Confidential Utility Clients

- Town of Victor, NY (Ontario County) Stormwater and GIS Support

- Town of Cramerton, NC (Gastonia County) Stormwater and GIS Support

None of these projects preclude our DIG team spending an average of 850 hours per year, as is forecast in the RFP (or even additional hours if necessary). This is because of the breadth and depth of our group. If we estimated half of this time to be spent by our three key team members (Smith, Malinowski, Coniglio), 425 hours is roughly 7.5% of their time. If the remainder of the time utilized our additional DIG team members, that also is roughly 7.5% of their time.

GIS (and other data analytics) support for Erie County Water Authority would be a priority, signature project for the LaBella DIG team. As mentioned in the introduction, our team is excited about the opportunity to service ECWA again. Because of this we are committed, if it becomes necessary, to add additional staff to our team, to make sure the highest level of attention and service can continue. The DIG group has grown to six staff over the course of the year, and we are planning to add additional staff going forward as necessary.

BILLING RATES

LaBella
Powered by partnership.

4. RATES

Fixed hourly billing rates for 2020, 2021, and 2022 for GIS personnel including the following:

- Project Manager, 150 hours
- Senior GIS Programmer, 150 hours
- GIS Programmer, 100 hours
- GIS Analyst, 200 hours
- GIS Technician, 200 hours
- GIS Intern, 100 hours

The price evaluation will be based upon the expected annual hours identified above

	Hourly Billing Rate	2020 - 2022 Hours	2020 Cost	2021 Cost	2022 Cost
Project Manager	$125.00	150	$18,750.00	$18,750.00	$18,750.00
Senior GIS Programmer	$125.00	150	$18,750.00	$18,750.00	$18,750.00
GIS Programmer	$118.00	100	$11,800.00	$11,800.00	$11,800.00
GIS Analyst	$80.00	200	$16,000.00	$16,000.00	$16,000.00
GIS Technician	$65.00	200	$13,000.00	$13,000.00	$13,000.00
GIS Intern	$40.00	100	$4,000.00	$4,000.00	$4,000.00
	Total		**$82,300.00**	**$82,300.00**	**$82,300.00**

LaBella
Powered by partnership.

REQUIRED FORMS

FORM A

Offerer's Affirmation of Understanding of, and Agreement to Comply with, the Permissible Contact Requirements During the Restricted Period

Instructions:

The Erie County Water Authority (the "Authority") is a government entity, as that term is defined in State Finance Law §§ 139-j(1)(a) and 139-k(1)(a). The Authority must obtain a written affirmation of understanding and agreement to comply with procedures regarding permissible contacts with the Authority in the restricted period for a procurement contract in accordance with State Finance Law §139−j and §139−k. It is required that this affirmation be obtained as early as possible in the procurement process, but no later than when the Offerer submits its proposal.

Offerer affirms that it understands and agrees to comply with the procedures of the Authority relative to permissible contacts as required by State Finance Law §139−j(3) and §139−j(6)(b).

By: _____ Date: __6/8/2020__

Name: __Timothy M. Webber__

Title: __Vice President__

Contractor Name: __LaBella Associates__

Contractor Address: __300 Pearl Street, Suite 130, Buffalo, NY 14202__

FORM B

Offerer's Certification of Compliance
With State Finance Law §139−k(5)

Instructions:

The Erie County Water Authority (the "Authority") is a government entity, as that term is defined in State Finance Law §§ 139-j(1)(a) and 139-k(1)(a). The Authority must obtain a Certification that the information submitted for a procurement contract is complete, true, and accurate regarding any prior findings of non-responsibility, such as non-responsibility pursuant to State Finance Law §139−j. The Offerer must agree to sign the Certification, under penalty of perjury, and to provide the Certification to the Authority. The Certification should be obtained as early as possible in the process, but no later than when an Offerer submits its proposal.

Offerer Certification:

I certify that all information provided to the Authority relating to the awarding of a procurement contract is complete, true, and accurate.

By: _____   Date: ___6/8/2020___

Name: ___Timothy M. Webber___

Title: ___Vice President___

Contractor Name: ___LaBella Associates___

Contractor Address: ___300 Pearl Street, Suite 130, Buffalo, NY 14202___

FORM C

Offerer's Disclosure of Prior
Non-Responsibility Determinations

Background:

The Erie County Water Authority (the "Authority") is a government entity, as that term is defined in State Finance Law §§ 139-j(1)(a) and 139-k(1)(a). New York State Finance Law §139−k(2) obligates the Authority to obtain specific information regarding prior non-responsibility determinations with respect to State Finance Law §139−j. In accordance with State Finance Law §139−k, an Offerer must be asked to disclose whether there has been a finding of non-responsibility made within the previous four (4) years by any Governmental Entity due to: (a) a violation of State Finance Law §139−j; or (b) the intentional provision of false or incomplete information to a Government Entity.

The terms "Offerer" and "Governmental Entity" are defined in State Finance Law §§139−j(1). and §139−k(1), These sections also set forth detailed requirements about the restrictions on contacts during the procurement process. A violation of State Finance Law §139−j includes, but is not limited to, an impermissible contact during the restricted period (for example, contacting a person or entity other than the designated contact person, when such contact does not fall within one of the exemptions).

As part of its responsibility determination, State Finance Law §139−k(3) mandates consideration of whether an Offerer fails to timely disclose accurate or complete information regarding the above non-responsibility determination. In accordance with law, no Procurement Contract shall be awarded to any Offerer that fails to timely disclose accurate or complete information under this section, unless a finding is made that the award of the Procurement Contract to the Offerer is necessary to protect public property or public health safety, and the Offerer is the only source capable of supplying the required Article of Procurement, as that term is defined in State Finance Law §§ 139-j(1)(b) and 139-k(1)(b), within the necessary timeframe. See State Finance Law §139−j(10)(b) and §139−k(3).

Instructions:

The Authority must include a disclosure request regarding prior non-responsibility determinations in accordance with State Finance Law §139−k in its solicitation of proposals or bid documents or specifications or contract documents, as applicable, for procurement contracts. The attached form is to be completed and submitted by the individual or entity seeking to enter into a Procurement Contract. It shall be submitted to the Authority conducting the Governmental Procurement no later than when the Offerer submits its proposal.

FORM C (Continued)

Offerer's Disclosure of Prior Non-Responsibility Determinations

Name of Individual or Entity Seeking to Enter into the Procurement Contract:

LaBella Associates

Address: 300 Pearl Street, Suite 130, Buffalo, NY 14202

Name and Title of Person Submitting this Form:

Timothy M. Webber, Vice President

Contract Procurement Number: ECWA Project No. 202000136

Date: 6/8/2020

1. Has any Governmental Entity made a finding of non-responsibility regarding the individual or entity seeking to enter into the Procurement Contract in the previous four years? (Please circle): (No) Yes

    If yes, please answer the next questions:

2. Was the basis for the finding of non-responsibility due to a violation of State Finance Law §139−j (Please circle): No Yes

3. Was the basis for the finding of non-responsibility due to the intentional provision of false or incomplete information to a Governmental Entity? (Please circle) No Yes

4. If you answered yes to any of the above questions, please provide details regarding the finding of non-responsibility below.

Governmental Entity: _____

Date of Finding of Non-Responsibility: _____

Basis of Finding of Non-Responsibility: _____

_____

_____

_____

_____

(Add additional pages as necessary)

FORM C (Continued)

5. Has any Governmental Entity or other governmental agency terminated or withheld a Procurement Contract with the above-named individual or entity due to the intentional provision of false or incomplete information? (Please circle):   (No)   Yes

6. If yes, please provide details below.
Governmental Entity: _____

Date of Termination or Withholding of Contract: _____

Basis of Termination or Withholding:

_____
_____
_____
_____
_____
_____
_____

(Add additional pages as necessary)

Offerer certifies that all information provided to the Erie County Water Authority with respect to State Finance Law §139−k is complete, true, and accurate.

By: _____   Date: __6/8/2020_____
          Signature

Name: ___Timothy M. Webber_____

Title: ___Vice President_____

CONTRACT TERMINATION PROVISION

Instructions:

A Contract Termination Provision will be included in each procurement contract governed by State Finance Law §139−k. New York State Finance Law §139-k(5) provides that every procurement contract award subject to the provisions of State Finance Law §§139−k and 139−j shall contain a provision authorizing the governmental entity to terminate the contract in the event that the certification is found to be intentionally false or intentionally incomplete. This statutory contract language authorizes, but does not mandate, termination. "Government Entity" and "procurement contract" are defined in State Finance Law §§ 139 j(1) and 139−k(l).

This required clause will be included in a covered procurement contract.

A sample of the Termination Provision is included below. If a contract is terminated in accordance with State Finance Law §139−k(5), the Erie County Water Authority, as a governmental entity, is required to include a statement in the procurement record describing the basis for any action taken under the termination provision.

Sample Contract Termination Provision

The Erie County Water Authority, as a governmental entity, reserves the right to terminate this contract in the event it is found that the certification filed by the Offerer in accordance with New York State Finance Law §139−k was intentionally false or intentionally incomplete. Upon such finding, the Authority may exercise its termination right by providing written notification to the Offerer in accordance with the written notification terms of this contract.

SECTION 139-L OF THE STATE FINANCE LAW
STATEMENT RELATING TO SEXUAL HARASSMENT POLICY

1. "Bidder" has the same meaning as the term, "Offerer," as that terms is defined in State Finance Law § 139-k(1)(h), and includes anyone who submits a bid or proposal.

2. Every proposal or bid hereafter made and submitted to the Erie County Water Authority, where competitive bidding or a sealed proposal is required by statute, rule or regulation, for work or services performed or to be performed or goods sold or to be sold, shall contain the following statement subscribed by the Bidder and affirmed by such Bidder as true under penalty of perjury:
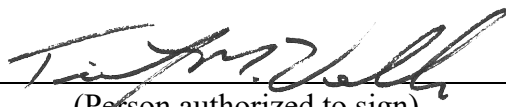
SEXUAL HARASSMENT BIDDING CERTIFICATION

(a) "By submission of this bid/proposal, EACH BIDDER AND EACH PERSON SIGNING ON BEHALF OF ANY BIDDER CERTIFIES, AND IN THE CASE OF A JOINT BID EACH PARTY THERETO CERTIFIES AS TO ITS OWN ORGANIZATION, under penalty of perjury, that the Bidder has and has implemented a written policy addressing sexual harassment prevention in the workplace and provides annual sexual harassment prevention training to all its employees. Such policy shall, at a minimum, meet the requirements of Section two hundred one-g of the Labor Law."

3. A bid/proposal shall not be considered for award nor shall any award be made to a Bidder who has not complied with subdivision one of this section; provided, however, that if in any case the Bidder cannot make the foregoing certification, the Bidder shall so state and shall furnish with the bid/proposal a signed statement which sets forth in detail the reasons therefore.

The undersigned CERTIFIES, under penalty of perjury, that he is authorized to make this bid/proposal and execute this statement on sexual harassment; that he is familiar with the statements contained in ¶2(a) of this document, as well as the provisions of State Finance Law §139-L and Labor Law §201-g, and such statements are true and have been complied with by the Bidder.

LaBella Associates
_____
(Name of Individual, Partnership or Corporation)

By _____
(Person authorized to sign)

(SEAL)

END OF BID FORM SUPPLEMENTS

INSURANCE REQUIREMENTS

GIS Technical Support Consulting Services

The following minimum insurance requirements shall apply to vendors providing services to the Erie County Water Authority (ECWA). If a service or project, in the opinion of ECWA, represents an unusual or exceptional risk, ECWA may establish additional insurance requirements for that service or project. All insurance required herein shall be obtained at the sole cost and expense of the contractor, including deductibles and self-insured retentions, and shall be in full force and effect on the contract commencement date and for the duration of the contract. These requirements include but are not limited to the minimum insurance requirements.

Insurance Requirements:

a. Workers Compensation:
    Part 1: Workers Compensation: Statutory
    Part 2: Employers Liability: $1,000,000.
    Note: If New York State domiciled employees are used, coverage to be New York
    Statutory for both Parts 1 and 2

b. **New York Disability Benefits Liability:** Statutory coverage if New York State domiciled employees are used.

c. Commercial General Liability:
- $2,000,000. General Aggregate
- $2,000,000. Products/Completed Operations Aggregate
- $1,000,000. Each Occurrence
- $1,000,000. Personal Injury/Advertising Liability
- Erie County Water Authority to be scheduled as an Additional Insured for both on-going and completed operations (attach Additional Insured endorsement to Certificate of Insurance)
- Insurance to be primary and non-contributory

d. Automobile Liability:
- $1,000,000. Each Accident
- Erie County Water Authority to be scheduled as an Additional Insured.

 e. **Professional Liability**:
    • $1,000,000 Per Claim
    • $1,000,000 Aggregate

f. Cyber Liability
- $1,000,000 Per Claim
    $1,000,000 Aggregate

Certificates of Insurance to be provided to ECWA prior to start of work as follows:

ACORD 25 including copy of Additional Insured Endorsement Note: If coverage provided for NYS domiciled employees require Forms C 105.2 and DB 120.1 for Workers Compensation and NYS DBL.

Certificates of Insurance, on forms approved by the New York State Department of Insurance, must be submitted to ECWA prior to the award of contract. Renewals of Certificates of Insurance, on forms approved by the New York State Department of Insurance, must be received by ECWA 30 days prior to the expiration of the insurance policy period.

Certificates of Insurance and renewals, on forms approved by the New York State Department of Insurance, must be submitted to ECWA prior to the award of contract. Each insurance carrier issuing a Certificate of Insurance shall be rated by A. M. Best no lower than "A-" with a Financial Strength Code (FSC) of at least VII. The professional service provider shall name ECWA, its officers, agents and employees as additional insured on a Primary and Non-Contributory Basis, including a Waiver of Subrogation endorsement (form CG 20 26 11 85 or equivalent), on all applicable liability policies. Any liability coverage on a "claims made" basis should be designated as such on the Certificate of Insurance. Such insurance shall continue through the term of this Agreement and vendor shall purchase at his sole expense either 1) an Extended Reporting Endorsement (also, known as Tail Coverage); or 2) Prior Acts Coverage from new insurer with a retroactive date back to the date of, or prior to, the inception of this Agreement; or 3) demonstrate through Certificates of Insurance that vendor has Maintained continuous coverage with the same or original insurer. Coverage provided under items; 1), 2), or 3) will continue as long as the law allows.

To avoid confusion with similar insurance company names and to properly identify the insurance company, please make sure that the insurer's National Association of Insurance Commissioners (N.A.I.C.) identifying number or A. M. Best identifying number appears on the Certificate of Insurance.

 Please list the project number on the Certificate of Insurance.

Acceptance of a Certificate of Insurance and/or approval by ECWA shall not be construed to relieve the outside vendor of any obligations, responsibilities or liabilities.

Certificates of Insurance should be e-mailed to mmusarra@ecwa.org or mailed to Ms. Molly Jo Musarra, ECWA Claim Representative/Risk Manager Erie County Water Authority, 295 Main Street – Room 350, Buffalo, New York 14203-2494, or If you have any questions you can contact Ms. Musarra by e-mail or phone (716) 849-8465.

INSURANCE

ACORD® CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
1/14/2020

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME:	
Paris-Kirwan Associates, Inc. PO Box 40420 Rochester, NY 14604	PHONE (A/C, No, Ext): (585) 473-8000	FAX (A/C, No): (585) 340-1714
	E-MAIL ADDRESS: reception@paris-kirwan.com	

	INSURER(S) AFFORDING COVERAGE	NAIC #
	INSURER A : Acadia Insurance Company	31325
INSURED	INSURER B : Union Insurance Company	25844
LaBella Associates, PC & LaBella Associates, DPC 300 State Street, Suite 201 Rochester, NY 14614	INSURER C :	
	INSURER D :	
	INSURER E :	
	INSURER F :	

COVERAGES   CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE X OCCUR	X	X	CPA5365357-12	11/7/2019	11/7/2020	EACH OCCURRENCE	$ 1,000,000
							DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 1,000,000
							MED EXP (Any one person)	$ 10,000
							PERSONAL & ADV INJURY	$ 1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER: POLICY X PRO-JECT LOC OTHER:						GENERAL AGGREGATE	$ 2,000,000
							PRODUCTS - COMP/OP AGG	$ 2,000,000
								$
B	AUTOMOBILE LIABILITY X ANY AUTO OWNED AUTOS ONLY / SCHEDULED AUTOS HIRED AUTOS ONLY / NON-OWNED AUTOS ONLY	X	X	CAA5365358-12	11/7/2019	11/7/2020	COMBINED SINGLE LIMIT (Ea accident)	$ 1,000,000
							BODILY INJURY (Per person)	$
							BODILY INJURY (Per accident)	$
							PROPERTY DAMAGE (Per accident)	$
								$
A	X UMBRELLA LIAB X OCCUR EXCESS LIAB CLAIMS-MADE DED X RETENTION $ 10,000	X	X	CUA5365359-12	11/7/2019	11/7/2020	EACH OCCURRENCE	$ 10,000,000
							AGGREGATE	$ 10,000,000
								$
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? N (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	N/A	X	WCA5365360-11	11/7/2019	11/7/2020	X PER STATUTE / OTHER	
							E.L. EACH ACCIDENT	$ 1,000,000
							E.L. DISEASE - EA EMPLOYEE	$ 1,000,000
							E.L. DISEASE - POLICY LIMIT	$ 1,000,000
A	Scheduled Equipment			CPA5365357-12	11/7/2019	11/7/2020	$500 Ded.	416,942

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
If Additional Insured or Waiver of Subrogation status is noted for any policies, coverage applies only if required in a written contract or agreement.

Erie County Water Authority, its officers, agents and employees are named as additional insureds on a primary and non-contributory basis, including ongoing and completed operations on the General Liability, only if required in a written contract. Erie County Water Authority, its officers, agents and employees are named as additional insureds on a primary and non-contributory basis on the Auto and Umbrella policies, only if required in a written contract. A waiver of subrogation applies on the General Liability, Auto, Umbrella and Workers' Compensation policies, only if required in a written contract. A 30-day notice of cancellation applies.

CERTIFICATE HOLDER	CANCELLATION
	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
Erie County Water Authority 295 Main Street - Room 350 Buffalo, NY 14203	AUTHORIZED REPRESENTATIVE *Lawrence Stanney*

ACORD 25 (2016/03)

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

GENERAL LIABILITY ULTRA PLUS ENDORSEMENT

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SUMMARY OF COVERAGE EXTENSIONS

Provision	Name Of Coverage Extension	Included or Limit of Insurance
A.	Miscellaneous Additional Insureds	Included
B.	Expected Or Intended Injury Or Damage	Included
C.	Knowledge Of Occurrence	Included
D.	Legal Liability – Damage To Premises Rented To You (Fire, Lightning, Explosion, Smoke, Or Leakage From Automatic Fire Protective Systems)	$300,000
E.	Medical Payments	See Declarations
F.	Mobile Equipment Redefined	Included
G.	Newly Formed Or Acquired Organization, Partnership Or Limited Liability Company And Extended Period Of Coverage	Included
H.	Who Is An Insured – Amendment	Included
I.	Non-Owned Watercraft (Increased to maximum length of less than 51 feet)	Included
J.	Supplementary Payments – Increased Limits	
	1. Bail Bonds	$ 3,000
	2. Loss Of Earnings	$ 1,000
K.	Unintentional Omission Or Unintentional Error In Disclosure	Included
L.	Waiver Of Transfer Of Rights Of Recovery Against Others	Included
M.	Liberalization Clause	Included
N.	Incidental Medical Malpractice	Included

The above is a summary only. Please consult the specific provisions that follow for complete information on the extensions provided.

The provisions of the Commercial General Liability Coverage Part apply except as otherwise provided in this endorsement. This endorsement applies only if such Coverage Part is included in this policy.

A. MISCELLANEOUS ADDITIONAL INSUREDS

    1. **Section II – Who Is An Insured** is amended to include as an insured any person or organization (referred to as an additional insured below) described in Paragraphs **A.1.c.(1)** through **A.1.c.(9)** below when you and such person or organization have agreed in writing in a contract or agreement that such person or organization be added as an additional insured on your policy, provided that:

        a. The written contract or written agreement is:

            (1) Currently in effect or becoming effective during the term of this policy; and

            (2) Fully executed by you and the additional insured prior to the "bodily

injury", "property damage" or "personal and advertising injury".

b. The insurance afforded by this provision does not apply to any person or organization included as an additional insured by a separate endorsement issued by us and made a part of this policy or coverage part.

c. Only the following persons or organizations are additional insureds under this provision, with coverage for such additional insureds limited as provided herein:

(1) ==**Persons or Organizations For Whom Operations Are Performed**==

(a) Any person or organization for whom you are performing operations when you and such person or organization have agreed in writing in a contract or agreement that such person or organization be added as an additional insured to your policy; and

(b) Any other person or organization you are required to add as an additional insured under the contract or agreement described in paragraph **(a)** above.

(c) Such person(s) or organization(s) is an additional insured only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by:

(i) Your acts or omissions; or

(ii) The acts or omissions of those acting on your behalf;

in the performance of your ongoing operations for the additional insured.

(d) With respect to the insurance afforded to these additional insureds, the following additional exclusions apply:

This insurance does not apply to:

(i) "Bodily injury", "property damage" or "personal and advertising injury" arising out of the rendering of, or the failure to render, any professional architectural, engineering or surveying services, including:

(1.1) The preparing, approving, or failing to prepare or approve, maps, shop drawings, opinions, reports, surveys, field orders, change orders or drawings and specifications; or

(1.2) Supervisory, inspection, architectural or engineering activities.

This exclusion applies even if the claims against any insured allege negligence or other wrongdoing in the supervision, hiring, employment, training or monitoring of others by that insured, if the "occurrence" which caused the "bodily injury" or "property damage", or the offense which caused the "personal and advertising injury", involved the rendering of, or the failure to render, any professional architectural, engineering or surveying services.

(ii) "Bodily injury" or "property damage" occurring after:

(1.1) All work, including materials, parts or equipment furnished in connection with such work, on the project (other than service, maintenance or repairs) to be performed by or on behalf of the additional insured(s) at the location of the covered operations has been completed; or

(1.2) That portion of "your work" out of which the injury or damage arises has been put to its intended use by any person or organization other than another contractor or subcontractor engaged in performing operations for a principal as a part of the same project.

(2) ==**Managers Or Lessors Of Premises**==

A manager or lessor of premises but only with respect to liability arising out of the ownership, maintenance or use of that part of the premises leased to

you and subject to the following additional exclusions:

This insurance does not apply to:

(a) Any "occurrence" which takes place after you cease to be a tenant in that premises.

(b) Structural alterations, new construction or demolition operations performed by or on behalf of such additional insured.

(3) Mortgagee, Assignee Or Receiver

A mortgagee, assignee, or receiver but only with respect to their liability as mortgagee, assignee, or receiver and arising out of the ownership, maintenance, or use of a covered premises by you.

This insurance does not apply to structural alterations, new construction or demolition operations performed by or on behalf of such additional insured.

(4) Owners Or Other Interests From Whom Land Has Been Leased

An owner or other interest from whom land has been leased to you but only with respect to liability arising out of the ownership, maintenance or use of that part of the land leased to you and subject to the following additional exclusions:

This insurance does not apply to:

(a) Any "occurrence" which takes place after you cease to lease that land.

(b) Structural alterations, new construction or demolition operations performed by or on behalf of such additional insured.

(5) Lessor Of Leased Equipment

Any person(s) or organization(s) from whom you lease equipment but only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by your maintenance, operation or use of equipment leased to you by such person(s) or organization(s).

A person's or organization's status as an additional insured under this endorsement ends when their written

contract or written agreement with you for such leased equipment ends.

This insurance does not apply to any "occurrence" which takes place after the equipment lease expires.

(6) State, Municipality, Governmental Agency Or Subdivision Or Other Political Subdivision – Permits Or Authorizations Relating To Premises

Any state, municipality, governmental agency or subdivision or other political subdivision subject to the following additional provisions:

(a) This insurance applies only with respect to:

(i) The following hazards for which the state, municipality, governmental agency or subdivision or other political subdivision has issued a permit or authorization in connection with premises you own, rent or control and to which this insurance applies:

(1.1) The existence, maintenance, repair, construction, erection or removal of advertising signs, awnings, canopies, cellar entrances, coal holes, driveways, manholes, marquees, hoist away openings, sidewalk vaults, street banners or decorations and similar exposures; or

(1.2) The construction, erection or removal of elevators; or

(1.3) The ownership, maintenance or use of any elevators covered by this insurance.

(ii) Operations performed by you or on your behalf for which the state, municipality, governmental agency or subdivision or other political subdivision has issued a permit or authorization.

(b) This insurance does not apply to "bodily injury", "property damage" or "personal and advertising injury" arising out of operations performed for the state, municipality, governmental agency or subdivision or other political subdivision.

(7) <mark>**Controlling Interest**</mark>

Any person(s) or organization(s) with a controlling interest in the Named Insured but only with respect to their liability arising out of:

(a) Their financial control of you; or

(b) Premises they own, maintain or control while you lease or occupy these premises.

This insurance does not apply to structural alterations, new construction or demolition operations performed by or for such person(s) or organization(s).

(8) <mark>**Co-Owner Of Insured Premises**</mark>

A co-owner of a premises co-owned by you and covered under this insurance but only with respect to the co-owner's liability as co-owner of such premises.

(9) <mark>**Vendors**</mark>

(a) Any person(s) or organization(s) (referred to as vendor), but only with respect to "bodily injury" or "property damage" arising out of "your products" which are distributed or sold in the regular course of the vendor's business.

The insurance afforded the vendor does not apply to:

(i) "Bodily injury" or "property damage" for which the vendor is obligated to pay damages by reason of the assumption of liability in a written contract or written agreement. This exclusion does not apply to liability for damages that the vendor would have in the absence of the written contract or written agreement;

(ii) Any express warranty unauthorized by you;

(iii) Any physical or chemical change in the product made intentionally by the vendor;

(iv) Repackaging, except when unpacked solely for the purpose of inspection, demonstration, testing, or the substitution of parts under instructions from the manufacturer, and then repackaged in the original container;

(v) Any failure to make such inspections, adjustments, tests or servicing as the vendor has agreed to make or normally undertakes to make in the usual course of business, in connection with the distribution or sale of the products;

(vi) Demonstration, installation, servicing or repair operations, except such operations performed at the vendor's premises in connection with the sale of the product;

(vii) Products which, after distribution or sale by you, have been labeled or relabeled or used as a container, part or ingredient of any other thing or substance by or for the vendor; or

(viii) "Bodily injury" or "property damage" arising out of the sole negligence of the vendor for its own acts or omissions or those of its employees or anyone else acting on its behalf. However, this exclusion does not apply to:

(1.1) The exceptions contained in Sub-paragraphs **(iv)** or **(vi)**; or

(1.2) Such inspections, adjustments, tests or servicing as the vendor has agreed to make or normally undertakes to make

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED - OWNERS, LESSEES OR CONTRACTORS - COMPLETED OPERATIONS: AUTOMATIC STATUS

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

A. **Section II - Who Is An Insured** is amended to include as an additional insured any person or organization for whom you have agreed to add as an additional insured on your policy in a written contract or written agreement, but only with respect to liability for "bodily injury" or "property damage" caused, in whole or in part, by "your work" performed for that additional insured and included in the "products-completed operations hazard".

The coverage provided to the additional insured by this endorsement does not apply to "bodily injury" or "property damage" beyond:

1. The period of time required by the written contract or written agreement governing "your work", or 10 years from the date of the completion of "your work" described above, whichever is less; or

2. Two years from the date of the completion of "your work" described above, if the written contract or written agreement does not specify the period of time.

B. With respect to coverage provided under this endorsement, the following is added to the end of **Section III - Limits Of Insurance**:

The limits of insurance for any additional insured are the limits in this coverage form or the limits you agreed to in the written contract or written agreement governing "your work", whichever is less. These limits of insurance are inclusive of and are not in addition to the Limits of Insurance shown in the Declarations.

C. With respect to coverage provided under this endorsement, the following exclusion is added to Paragraph **2. Exclusions** of **Section I - Coverage A - Bodily Injury And Property Damage Liability:**

This insurance does not apply to "bodily injury" or "property damage" arising out of the rendering of, or the failure to render, any professional architectural, engineering or surveying services, including:

(1) The preparing, approving, or failing to prepare or approve, maps, shop drawings, opinions, reports, surveys, field orders, change orders or drawings and specifications; and

(2) Supervisory, inspection, architectural or engineering activities.

This exclusion applies even if the claims against any insured allege negligence or other wrongdoing in having supervised, hired, employed, trained or monitored others by that insured, if the "occurrence" which caused the "bodily injury" or "property damage" involved the rendering of or the failure to render any professional architectural, engineering or surveying services.

D. With respect to the coverage provided under this endorsement, the following replaces paragraphs **2.a.** and **2.b**. of **Section IV - Commercial General Liability Conditions**:

a. You and any additional insured must see to it that we are notified as soon as practicable of an "occurrence" or an offense which may result in a claim. To the extent possible, notice should include:

(1) How, when and where the "occurrence" or offense took place;

(2) The names and addresses of any injured persons and witnesses; and

(3) The nature and location of any injury or damage arising out of the "occurrence" or offense.

b. If a claim is made or "suit" is brought against any insured, the insured must:

(1) Immediately record the specifics of the claim or "suit" and the date received; and

(2) Notify us as soon as practicable.

the insured must see to it that we receive written notice of the claim or "suit" as soon as practicable.

This insurance does not apply unless the written contract or written agreement has been executed prior to the "bodily injury" or "property damage".

CERTIFICATE OF NYS WORKERS' COMPENSATION INSURANCE COVERAGE

1a. Legal Name and address of Insured (Use street address only)	1b. Business Telephone Number of Insured
	1c. NYS Unemployment Insurance Employer Registration Number of Insured
Work Location of Insured *(Only required if coverage is specifically limited to certain locations in New York State, i.e. a Wrap-Up Policy)*	1d. Federal Employer Identification Number of Insured or Social Security Number
2. Name and Address of the Entity Requesting Proof of Coverage (Entity Being Listed as the Certificate Holder)	**3a. Name of Insurance Carrier**
	3b. Policy Number of entity listed in box "1a":
	3c. Policy effective period:
	3d. The Proprietor, Partners or Executive Officers are: ☐ **included.** (Only check box if all partners/officers included) ☐ **all excluded or certain partners/officers excluded.**

This certifies that the insurance carrier indicated above in box "3" insures the business referenced above in box "1a" for workers' compensation under the New York State Workers' Compensation Law. (To use this form, New York (NY) must be listed under **Item 3A** on the INFORMATION PAGE of the workers' compensation insurance policy). The Insurance Carrier or its licensed agent will send this Certificate of Insurance to the entity listed above as the certificate holder in box "2".

The Insurance Carrier will also notify the above certificate holder within 10 days IF a policy is canceled due to nonpayment of premiums or within 30 days IF there are reasons other than nonpayment of premiums that cancel the policy or eliminate the insured from the coverage indicated on this Certificate. (These notices may be sent by regular mail.) **Otherwise, this Certificate is valid for one year after this form is approved by the insurance carrier or its licensed agent, or until the policy expiration date listed in box"3c", _whichever is earlier._**

Please Note: Upon the cancellation of the workers' compensation policy indicated on this form, if the business continues to be named on a permit, license or contract issued by a certificate holder, the business must provide that certificate holder with a new Certificate of Workers' Compensation Coverage or other authorized proof that the business is complying with the mandatory coverage requirements of the New York State Workers' Compensation Law.

Under penalty of perjury, I certify that I am an authorized representative or licensed agent of the insurance carrier referenced above and that the named insured has the coverage as depicted on this form.

Approved by: _____
(Print name of authorized representative or licensed agent of insurance carrier)

Approved by: _____
(Signature)   (Date)

Title: _____

Telephone Number of authorized representative or licensed agent of insurance carrier:

Please Note: Only insurance carriers and their licensed agents are authorized to issue the C-105.2 form. Insurance brokers are NOT authorized to issue it.

C-105.2 (9-07)   www.wcb/state.ny.us

Workers' Compensation Law

Section 57. Restriction on issue of permits and the entering into contracts unless compensation is secured.

1. The head of a state or municipal department, board, commission or office authorized or required by law to issue any permit for or in connection with any work involving the employment of employees in a hazardous employment defined by this chapter, and notwithstanding any general or special statute requiring or authorizing the issue of such permits, shall not issue such permit unless proof duly subscribed by an insurance carrier is produced in a form satisfactory to the chair, that compensation for all employees has been secured as provided by this chapter. Nothing herein, however, shall be construed as creating any liability on the part of such state or municipal department, board, commission or office to pay any compensation to any such employee if so employed.

2. The head of a state or municipal department, board, commission or office authorized or required by law to enter into any contract for or in connection with any work involving the employment of employees in a hazardous employment defined by this chapter, notwithstanding any general or special statute requiring or authorizing any such contract, shall not enter into any such contract unless proof duly subscribed by an insurance carrier is produced in a form satisfactory to the chair, that compensation for all employees has been secured as provided by this chapter.

ACORD®
CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
01/14/2020

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	781-245-5400	CONTACT NAME:	
Poole Professional B&B of Mass 107 Audubon rd, #2, suite 305 Wakefield, MA 01880 Mary-Beth Rumble		PHONE (A/C, No, Ext): 781-245-5400	FAX (A/C, No): 781-245-5463
		E-MAIL ADDRESS: smiller@poole-ny.com	

	INSURER(S) AFFORDING COVERAGE	NAIC #
INSURED Labella Associates, D.P.C. LaBella Associates, P.C. 300 State Street, Suite 201 Rochester, NY 14614	INSURER A : New Hampshire Insurance Co.	23841
	INSURER B :	
	INSURER C :	
	INSURER D :	
	INSURER E :	
	INSURER F :	

COVERAGES   CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
	COMMERCIAL GENERAL LIABILITY ☐ CLAIMS-MADE ☐ OCCUR						EACH OCCURRENCE	$
							DAMAGE TO RENTED PREMISES (Ea occurrence)	$
							MED EXP (Any one person)	$
							PERSONAL & ADV INJURY	$
	GEN'L AGGREGATE LIMIT APPLIES PER: ☐ POLICY ☐ PROJECT ☐ LOC ☐ OTHER:						GENERAL AGGREGATE	$
							PRODUCTS - COMP/OP AGG	$
								$
	AUTOMOBILE LIABILITY ☐ ANY AUTO ☐ OWNED AUTOS ONLY ☐ SCHEDULED AUTOS ☐ HIRED AUTOS ONLY ☐ NON-OWNED AUTOS ONLY						COMBINED SINGLE LIMIT (Ea accident)	$
							BODILY INJURY (Per person)	$
							BODILY INJURY (Per accident)	$
							PROPERTY DAMAGE (Per accident)	$
								$
	☐ UMBRELLA LIAB ☐ OCCUR ☐ EXCESS LIAB ☐ CLAIMS-MADE						EACH OCCURRENCE	$
							AGGREGATE	$
	☐ DED ☐ RETENTION $							$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y/N ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below		N/A				☐ PER STATUTE ☐ OTHER	
							E.L. EACH ACCIDENT	$
							E.L. DISEASE - EA EMPLOYEE	$
							E.L. DISEASE - POLICY LIMIT	$
A	Prof. Liability PollutionLiability			031711166 RETRO DATE 1/1/1978	11/20/2019	11/20/2020	PER CLAIM AGGREGATE	5,000,000 5,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
Includes 30-day notice of cancellation.
ECWA Project No. 202000002

CERTIFICATE HOLDER	CANCELLATION
ECWA-01 Erie County Water Authority 295 Main Street - Room 350 Buffalo, NY 14203-2494	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE *Mary Beth Rumble*

ACORD 25 (2016/03)

© 1988-2015 ACORD CORPORATION. All rights reserved.
The ACORD name and logo are registered marks of ACORD

CERTIFICATE OF INSURANCE COVERAGE
under the NYS DISABILITY AND PAID FAMILY LEAVE BENEFITS LAW

PART 1. To be completed by Disability and Paid Family Leave Benefits Carrier or Licensed Insurance Agent of that Carrier

1a. Legal Name & Address of Insured (use street address only) LaBella Associates, P.C. 300 State Street Suite #201 Rochester, NY 14614 Work Location of Insured (*Only required if coverage is specifically limited to certain locations in New York State, i.e., Wrap-Up Policy*)	1b. Business Telephone Number of Insured (585) 402-7085 1c. Federal Employer Identification Number of Insured or Social Security Number 16-1115731
2. Name and Address of Entity Requesting Proof of Coverage (Entity Being Listed as the Certificate Holder) Erie County Water Authority 295 Main Street - Room 350 Buffalo, NY 14203	3a. Name of Insurance Carrier **CIGNA LIFE INSURANCE COMPANY OF NEW YORK** 3b. Policy Number of Entity Listed in Box "1a" NYD075696 3c. Policy effective period 1/1/2020 to 1/1/2021

4. Policy provides the following benefits:

☒ A. Both disability and paid family leave benefits.

☐ B. Disability benefits only.

☐ C. Paid family leave benefits only.

5. Policy covers:

☒ A. All of the employer's employees eligible under the NYS Disability and Paid Family Leave Benefits Law.

☐ B. Only the following class or classes of employer's employees:

_____

_____

Under penalty of perjury, I certify that I am an authorized representative or licensed agent of the insurance carrier referenced above and that the named insured has NYS Disability and/or Paid Family Leave Benefits insurance coverage as described above.

Marceline E. Reilly

Date Signed January 14, 2020   By _____

(Signature of insurance carrier's authorized representative or NYS Licensed Insurance Agent of that insurance carrier)

Telephone Number 1-866-761-4236   Name and Title _____ Underwriting Director _____

IMPORTANT: If Boxes 4A and 5A are checked, and this form is signed by the insurance carrier's authorized representative or NYS Licensed Insurance Agent of that carrier, this certificate is COMPLETE. Mail it directly to the certificate holder.

If Box 4B, 4C or 5B is checked, this certificate is NOT COMPLETE for purposes of Section 220, Subd. 8 of the NYS Disability and Paid Family Leave Benefits Law. It must be mailed for completion to the Workers' Compensation Board, Plans Acceptance Unit, PO Box 5200, Binghamton, NY 13902-5200.

PART 2. To be completed by the NYS Workers' Compensation Board (Only if Box 4C or 5B of Part 1 has been checked)

State of New York
Workers' Compensation Board

According to information maintained by the NYS Workers' Compensation Board, the above-named employer has complied with the NYS Disability and Paid Family Leave Benefits Law with respect to all of his/her employees.

Date Signed _____   By _____

(Signature of Authorized NYS Workers' Compensation Board Employee)

Telephone Number _____   Name and Title _____

Please Note: Only insurance carriers licensed to write NYS disability and paid family leave benefits insurance policies and NYS licensed insurance agents of those insurance carriers are authorized to issue Form DB-120.1. *Insurance brokers are NOT authorized to issue this form.*

DB-120.1 (10-17)

Additional Instructions for Form DB-120.1

By signing this form, the insurance carrier identified in Box 3 on this form is certifying that it is insuring the business referenced in box "1a" for disability and/or paid family leave benefits under the New York State Disability and Paid Family Leave Benefits Law. The Insurance Carrier or its licensed agent will send this Certificate of Insurance to the entity listed as the certificate holder in Box 2.

The insurance carrier must notify the above certificate holder and the Workers' Compensation Board within 10 days IF a policy is cancelled due to nonpayment of premiums or within 30 days IF there are reasons other than nonpayment of premiums that cancel the policy or eliminate the insured from coverage indicated on this Certificate. (These notices may be sent by regular mail.) Otherwise, this Certificate is valid for one year after this form is approved by the insurance carrier or its licensed agent, or until the policy expiration date listed in Box 3c, whichever is earlier.

This certificate is issued as a matter of information only and confers no rights upon the certificate holder. This certificate does not amend, extend or alter the coverage afforded by the policy listed, nor does it confer any rights or responsibilities beyond those contained in the referenced policy.

This certificate may be used as evidence of a Disability and/or Paid Family Leave Benefits contract of insurance only while the underlying policy is in effect.

Please Note: Upon the cancellation of the disability and/or paid family leave benefits policy indicated on this form, if the business continues to be named on a permit, license or contract issued by a certificate holder, the business must provide that certificate holder with a new Certificate of NYS Disability and/or Paid Family Leave Benefits Coverage or other authorized proof that the business is complying with the mandatory coverage requirements of the New York State Disability and Paid Family Leave Benefits Law.

DISABILITY AND PAID FAMILY LEAVE BENEFITS LAW

§220. Subd. 8

(a) The head of a state or municipal department, board, commission or office authorized or required by law to issue any permit for or in connection with any work involving the employment of employees in employment as defined in this article, and not withstanding any general or special statute requiring or authorizing the issue of such permits, shall not issue such permit unless proof duly subscribed by an insurance carrier is produced in a form satisfactory to the chair, that the payment of disability benefits and after January first, two thousand and twenty-one, the payment of family leave benefits for all employees has been secured as provided by this article. Nothing herein, however, shall be construed as creating any liability on the part of such state or municipal department, board, commission or office to pay any disability benefits to any such employee if so employed.

(b) The head of a state or municipal department, board, commission or office authorized or required by law to enter into any contract for or in connection with any work involving the employment of employees in employment as defined in this article and notwithstanding any general or special statute requiring or authorizing any such contract, shall not enter into any such contract unless proof duly subscribed by an insurance carrier is produced in a form satisfactory to the chair, that the payment of disability benefits and after January first, two thousand eighteen, the payment of family leave benefits for all employees has been secured as provided by this article.

APPENDIX C

ERIE COUNTY WATER AUTHORITY
CONFIDENTIALITY AND COPYRIGHT LICENSING AGREEMENT

<u>**LICENSE:**</u>

Upon execution of this Agreement, the Consultant acquires from the Authority a license to use the proprietary and intellectual property of the Authority for the purpose of completing the work under this Agreement.

The Authority reserves the right to incorporate any Consultant-created data into the Authority's database.

<u>**OWNERSHIP:**</u>

This License Agreement does not constitute a transfer of title or interest in the data. Any portion of the data that is modified or merged into another computer file or program by the Consultant or is integrated with other programs or data to form derivative products, shall continue to be subject to the provisions of this License Agreement. The Authority retains ownership of the data and all such portions.

<u>**CONFIDENTIALITY CLAUSE:**</u>

The Consultant agrees that all digital data and hard copy from the ECWA GIS Basemap Features provided to the Consultant are copyrighted by the Authority, are protected by the copyright laws of the United States and are furnished to the Consultant with all rights reserved. Therefore, the Consultant is hereby permitted to use the digital data and hard copies thereof only for the purposes allowed under this Agreement. The Consultant agrees not to otherwise copy, reproduce or use the digital data, hard copy, or the information contained therein for any other purpose whatsoever.

<u>**COPYRIGHT NOTICE:**</u>

The copyright notice included in each of the files is not only to be retained in those files but is also to be included in any copies made of those files. No part of the files may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photographing and recording, or by any information storage or retrieval system, except as expressly permitted in writing by the Erie County Water Authority.

Upon notification by the Authority of any changes in copyright requirements, the Consultant will make said changes to all subsequent maps or reports, as required.

LIMITATION OF LIABILITY:

ECWA GIS Basemap Features are compiled to National Map Accuracy Standards for 1"=100' scale mapping by Woolpert, Dayton, Ohio, using Stereo photogrammetric methods from aerial photography dated April, May, and/or November, 1990. The control grid is based on New York State Plane Coordinates and North American Datum 1983. The parcels are from Erie County Tax Maps which were available in the County Finance office in June of 1993.

The Authority makes no claims as to the accuracy of the ECWA GIS Basemap Features and assumes no responsibility for their positional or content accuracy. The Authority makes no claims as to the ability of the ECWA GIS Basemap Features to fulfill Consultant application requirements. In providing data, the Authority assumes no obligation to assist the Consultant in the use of the data, or in the development, use, or maintenance of any applications applied to the data.

Consultant recognizes and agrees that the Authority makes NO REPRESENTATIONS OF ANY KIND INCLUDING, BUT NOT LIMITED TO, THE WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE, NOR ARE ANY SUCH WARRANTIES TO BE IMPLIED, WITH RESPECT TO THE DATA OR INFORMATION FURNISHED.

TERMINATION:

The License to use data terminates upon completion of the work under this Agreement.

LIQUIDATION OF DAMAGES FOR BREACH OF AGREEMENT:

The parties agree that if Consultant breaches the Agreement and uses or discloses any of the copyrighted information in any way other than that allowed, during or subsequent to the terms of this Agreement for any purpose whatsoever, the damages of the Authority shall be deemed liquidated at three times the amount of the total value of the data as determined by the Erie County Water Authority.

In addition to treble damages for breach of Agreement, Consultant will additionally forfeit the license acquired to use copyrighted property of the Authority.

SPECIFIC TERMS OF ACCEPTANCE:

This Agreement constitutes the entire agreement between the parties.