

City of Flint, Michigan

*Third Floor, City Hall
1101 S. Saginaw Street
Flint, Michigan 48502
www.cityofflint.com*



Meeting Agenda - Final

Tuesday, September 28, 2021

6:00 PM

ELECTRONIC PUBLIC MEETING

SPECIAL CITY COUNCIL

*Kate Fields, President, Ward 4
Maurice D. Davis, Vice President, Ward 2*

*Eric Mays, Ward 1
Jerri Winfrey-Carter, Ward 5
Monica Galloway, Ward 7*

*Santino J. Guerra, Ward 3
Herbert J. Winfrey, Ward 6
Allan Griggs, Ward 8*

Eva L. Worthing, Ward 9

Inez M. Brown, City Clerk

Davina Donahue, Deputy Clerk

SPECIAL PUBLIC NOTICE -- ELECTRONIC PUBLIC MEETING**PUBLIC NOTICE
FLINT CITY COUNCIL ELECTRONIC PUBLIC MEETING**

On Friday, October 5, 2020, the Michigan Supreme Court (MSC) issued an order declaring that the Emergency Powers of Governor (EPG) Act as an unconstitutional delegation of legislative authority, which was the primary authority relied on by Governor Whitmer for her COVID-19 related executive orders. Subsequently, Governor Whitmer requested that the MSC clarify that their order does not go into effect until October 30, 2020. On Monday October 12, 2020, the Michigan Supreme Court rejected Governor Whitmer's request to delay the effect of its decision to strike down the EPG. On, Tuesday, October 13, 2020, Senate Bill 1108 passed, amending the Open Meetings Act to allow municipalities to hold electronic meetings. On Friday, October 16, 2020, Governor Whitmer signed into law Senate Bill 1108 amending the Open Meetings Act. Subsequently, on December 22, 2020, Public Act 267 of 1976 was amended through Senate Bill 1246 extending the electronic meetings with no reason through March 31, 2021. The act also allows that after March 31, 2021, electronic meetings may be held if a local state of emergency was declared. On March 23, 2020, the Flint City Council extended Mayor Neeley's declaration of emergency indefinitely due to the COVID-19 pandemic. Therefore, the following meeting will be held electronically:

Special Flint City Council Meeting

Pursuant to the newly revised Open Meetings Act and Flint City Charter Section 3-202, notice is hereby given that City Council members Monica Galloway and Eric Mays call for a Special City Council Meeting, scheduled to be held:

Date: Tuesday, September 28, 2021

Time: 6 p.m.

Location: Via Electronic Public Meeting

The meeting is being held for the following purpose(s):

- To complete agenda items from the 9-27-21 City Council meeting; and
- Other General City Business.

1. The public and media may listen to the meeting online by live stream at <https://www.youtube.com/c/FlintCityCouncilMeetings> or through Start Meeting Solution by dialing (617) 944-8177. (If unable to call in, please dial (206) 451-6011.)
 2. In order to speak during the PUBLIC SPEAKING PERIOD of the meeting by telephone, participants will also call (617) 944-8177. (If unable to call in, please dial (206) 451-6011.)
 - a. All callers will be queued and muted until the Public Speaking portion of the agenda;
 - b. Public speakers will be unmuted in order and asked if they wish to address the City Council ON ANY SUBJECT;
 - c. Public speakers should state and spell their name for the record and will be allowed three (3) minutes for public speaking;
 - d. The speaker will be returned to mute after the 3 minutes have expired;
 - e. After the telephonic public speakers are completed, emailed public comments will be read by the City Clerk. All emailed public comments will be timed for 3 minutes;
 - f. Per Rules Governing Meetings of the Council (Rule 7.1 VII), there will only be one speaking opportunity per speaker. Consequently, public participants who call in and speak during the public speaking period of the meeting WILL NOT have written comments as submitted read by the City Clerk.
 3. The public may send public comments by email to CouncilPublicComment@cityofflint.com no later than 10 minutes prior to the meeting start time of 6 p.m.
 4. Persons with disabilities may participate in the meeting by the above-mentioned means or by emailing a request for an accommodation to CouncilPublicComment@cityofflint.com, with the subject line Request for Accommodation, or by contacting the City Clerk at (810) 766-7418 to request accommodation - including but not limited to interpreters.
- If there are any questions concerning this notice, please direct them to City Council office at (810) 766-7418.

This Special City Council meeting was called by Councilpersons Monica Galloway and Eric Mays

- ***To complete agenda items from the September 27, 2021, City Council meeting; and***
- ***Other general city business.***

CALL TO ORDER

ROLL CALL

MEMBER REMOTE ANNOUNCEMENT

Pursuant to the newly revised Open Meetings Act, each Council member shall state that they are attending the meeting remotely and shall state where he or she is physically located (county or city and state).

MEMBER CONTACT INFORMATION

Eric Mays - (810) 922-4860; Maurice Davis - mdavis@cityofflint.com; Santino Guerra - sguerra@cityofflint.com; Kate Fields - kfields@cityofflint.com; Jerri Winfrey-Carter - jwinfrey-carter@cityofflint.com; Herbert Winfrey - (810) 691-7463; Monica Galloway - mgalloway@cityofflint.com; Allan Griggs - agriggs@cityofflint.com; Eva Worthing - eworthing@cityofflint.com.

PROCEDURES ON CONDUCTING ELECTRONIC MEETINGS

All boards and commissions must adhere to all laws established under the Michigan Compiled Laws and in accordance with the revisions to the Open Meetings Act adopted in Senate Bill 1108, as passed on October 13, 2020, and signed into law on October 16, 2020.

READING OF DISORDERLY PERSONS CITY CODE SUBSECTION

Any person that persists in disrupting this meeting will be in violation of Flint City Code Section 31-10, Disorderly Conduct, Assault and Battery, and Disorderly Persons, and will be subject to arrest for a misdemeanor. Any person who prevents the peaceful and orderly conduct of any meeting will be given one warning. If they persist in disrupting the meeting, that individual will be subject to arrest. Violators shall be removed from meetings.

PLEDGE OF ALLEGIANCE

PRAYER OR BLESSING

REQUEST FOR CHANGES AND/OR ADDITIONS TO AGENDA

Council shall vote to adopt any amended agenda.

PUBLIC SPEAKING

Per the amended Rules Governing Meetings of the Council (as adopted by the City Council on Monday, June 12, 2017), three (3) minutes per speaker. Only one speaking opportunity per speaker.

COUNCIL RESPONSE

Per the amended Rules Governing Meetings of the Council (as adopted by the City Council on Monday, June 12, 2017), Councilpersons may respond to any public speaker, but only one response and only when all public speakers have been heard. Individual council response is limited to two minutes.

PETITIONS AND UNOFFICIAL COMMUNICATIONS

210483 Press Release/Office of Gov. Gretchen Whitmer/Michigan's New Economy

Email dated September 22, 2021, from the office of Gov. Gretchen Whitmer, re: Michigan's economy is poised for a once-in-a-generation recovery.

210484 Press Release/Office of Gov. Gretchen Whitmer/Gov. Whitmer/Legislature/Agreement on Bipartisan Budget

Email dated September 22, 2021, from the office of Gov. Gretchen Whitmer, re: Gov. Whitmer and the State Legislature have come together on a bipartisan budget agreement that does not raise taxes on Michiganders.

210485 Press Release/Office of Gov. Gretchen Whitmer/New Economy Plan

Email dated September 22, 2021, from the office of Gov. Gretchen Whitmer, re: Gov. Whitmer detailed her economic agenda, a \$2.1 billion MI New Economy Plan, at the Mackinac Policy Conference.

COMMUNICATIONS (from Mayor and other City Officials)

210481 City of Flint/Press Release/Update on Water Connections for Commercial Property Owners

Press Release dated September 22, 2021, from the City of Flint, re: The City of Flint Treasury Department will resume water shut-offs at commercial properties considered "extreme(ly) delinquent."

210482 Traffic Engineering/Closure Permits

Sidewalk, Lane and Street Closure permits (4) dated August and September 2021, for requested activities/events, with noted responsibility for the placement of the required traffic control devices, and/or personnel, for the protection of traffic and event participants.

ADDITIONAL COMMUNICATIONS

APPOINTMENTS

210157 Appointment/Water System Advisory Council/Nancy Love

Resolution resolving that Mayor Neeley hereby appoints Nancy Love (1351 Beal Avenue, Ann Arbor, MI 48109) to serve on the Water System Advisory Council. [NOTE: Pursuant to the State of Michigan's administrative rules, water suppliers serving a population of 50,000 or more, shall create a Water System Advisory Council. The purpose of the Council is to improve transparency in the City of Flint community by developing materials and advising the water system on public awareness and education efforts.]

210229 Appointment/Water System Advisory Council/Shawn P. McElmurry

Resolution resolving that Mayor Neeley hereby appoints Shawn P. McElmurry (2153 Engineering Building, 5050 Anthony Wayne Drive, Detroit, MI 48202) to serve on the Water System Advisory Council. [NOTE: Pursuant to the State of Michigan's administrative rules, water suppliers serving a population of 50,000 or more, shall create a Water System Advisory Council. The purpose of the Council is to improve transparency in the City of Flint community by developing materials and advising the water system on public awareness and education efforts.]

210454 Appointment/Water System Advisory Council/Laura Sullivan

Resolution resolving that Mayor Neeley hereby appoints Laura Sullivan (3101 Hawthorne Drive, Flint, MI 48503) to serve on the Water System Advisory Council. [NOTE: Pursuant to the State of Michigan's administrative rules, water suppliers serving a population of 50,000 or more, shall create a Water System Advisory Council. The purpose of the Council is to improve transparency in the City of Flint community by developing materials and advising the water system on public awareness and education efforts.]

210455 Appointment/Water System Advisory Council/Nayyirah Shariff

Resolution resolving that Mayor Neeley hereby appoints Nayyirah Shariff (3628 Beecher Road, Flint, MI 48503) to serve on the Water System Advisory Council. [NOTE: Pursuant to the State of Michigan's administrative rules, water suppliers serving a population of 50,000 or more, shall create a Water System Advisory Council. The purpose of the Council is to improve transparency in the City of Flint community by developing materials and advising the water system on public awareness and education efforts.]

210456 Appointment/Water System Advisory Council/Diana Phillips

Resolution resolving that Mayor Neeley hereby appoints Diana Phillips (510 Dougherty Place, Flint, MI 48504) to serve on the Water System Advisory Council. [NOTE: Pursuant to the State of Michigan's administrative rules, water suppliers serving a population of 50,000 or more, shall create a Water System Advisory Council. The purpose of the Council is to improve transparency in the City of Flint community by developing materials and advising the water system on public awareness and education efforts.]

210457 Appointment/Water System Advisory Council/Wendy Braun

Resolution resolving that Mayor Neeley hereby appoints Wendy Braun (2015 Crooked Lane, Flint, MI 48503) to serve on the Water System Advisory Council. [NOTE: Pursuant to the State of Michigan's administrative rules, water suppliers serving a population of 50,000 or more, shall create a Water System Advisory Council. The purpose of the Council is to improve transparency in the City of Flint community by developing materials and advising the water system on public awareness and education efforts.]

RESOLUTIONS**210429** Contract/Rehmann Robson, LLC/City of Flint/Audit/FY2021

Resolution resolving that the appropriate city officials, upon City Council's approval, are authorized to do all things necessary to engage the services of Rehmann Robson, LLC, for FY2021 auditing services, in the amount of \$236,000.00, for a total contract price of \$711,000.00, plus out-of-pocket expenses [General Fund City Council Acct. No. 101-101.100-801.000.] [NOTE: The City Council adopted Resolution No. 200258 on June 22, 2020, to enter into a three-year contract with Rehmann Robson for a total contract amount of \$701,000.00. On November 23, 2020, the City Council adopted Resolution No. 200479 authorizing an additional \$7,500.00 to cover single audit services. The \$236,000.00 requested this year represents an increase of \$2,500.00 to conform with the Government Financial Officers Association criteria, plus out-of-pocket expenses.]

210448 Ace-Saginaw Paving Co./Asphalt Paving Materials

Resolution resolving that the appropriate city officials, upon City Council's approval, are to do all things necessary to continue the current contract with Ace-Saginaw Paving Co. for asphalt paving materials, as requested by DPW, in an amount NOT-TO-EXCEED \$560,000.00 [Major Street Fund Acct. No. 202-449.201-782.000 = \$95,000.00; Acct. No. 202-449.201-782.000 = \$358,500.00; and Acct. No. 202-449.203-782.000 = \$13,500.00; and Local Street Fund Acct. No. 203-449.203-782.000 = \$12,000.00; Acct. No. 203-449.211-782.000 = \$9,000.00; and Acct. No. 203-449.211-782.000 = \$12,000.00, and Sewer Fund Acct. No. 590-540.208-782.000 = \$30,000.00 and Water Fund Acct. No. 591-540.202-782.000 = \$30,000.00.] [NOTE: This is the second year of a two-year contract.]

210449 Contract Extension/Duke's Root Control, Inc./Root Control Services

Resolution resolving that the appropriate city officials are to do all things necessary to extend the contract with Duke's Root Control, Inc. for sewer line chemical root control services, in an amount NOT-TO-EXCEED \$350,000.00, as requested by DPW [Sewer Fund Capital Improvement Fund Acct. No. 590-540.300-801.000.] [NOTE: The company agreed to extend its bid pricing for the next two years.]

- 210450** Contract/Ferguson Waterworks/Water Main & Service Connection Parts
- Resolution resolving that the proper city officials, upon City Council's approval, are authorized to enter into year two of the two-year contract with Ferguson Waterworks, as requested by the Water Service Center, for water main and service connection parts, in an amount NOT-TO-EXCEED \$110,000.00 [Water Fund Supplies Acct. No. 591-540.202-752.000.]
- 210451** CO#1/DLZ Michigan, Inc./Additional Engineering Oversight/Northwest Pump Station Bypass Diversion
- Resolution resolving that the proper city officials, upon City Council's approval, are authorized to enter into change order #1 with DLZ Michigan, Inc. for engineering services for the additional engineering oversight required to complete the WPC Northwest Pumping Station bypass diversion project, as requested by Water Pollution Control, in an amount NOT-TO-EXCEED \$5,100.00, and a revised contract amount NOT-TO-EXCEED \$174,853.00 [Sewer Fund Acct. No. 590-550.300-801.000.]
- 210452** CO#1/Contract/Z Contractors, Inc./Northwest Pump Station Bypass Diversion
- Resolution resolving that the proper city officials, upon City Council's approval, are authorized to enter into change order #1 with Z Contractors, Inc. for the additional work required to complete the Northwest Pump Station bypass diversion project, as requested by Water Pollution Control, in an amount NOT-TO-EXCEED \$135,902.99, and a revised contract amount NOT-TO-EXCEED \$3,155,091.99 [Sewer Fund Acct. No. 590-550.413-801.075.] [NOTE: This project is part of Phase 1 of the Publicly Owned Treatment Works, DPW-WPC Improvements SRF Project Plan.]
- 210453** Approval/Resolution of Complaint/Public Nuisance/Cheers Market
- Resolution resolving that the Mayor and Flint City Council stand with the residents of Flint, in making this declaration of Cheers Market as a public nuisance, AND, resolving that the Mayor and the Flint City Council do all things necessary to promote good, honest, hardworking, legitimate and law-abiding businesses throughout the City of Flint, AND, resolving that the Mayor and Flint City Council do all things necessary to submit this resolution to the Michigan Liquor Control Commission declaring Cheers Market as a public nuisance in the City of Flint and request that a complaint be opened against Cheers Market to revoke its licensure under the Michigan Liquor Control Code.
- 210458** Agreement/Genesee County Health Department/Genesee Healthy Start Grant
- Resolution resolving that the appropriate city officials, upon City Council's approval, are authorized to do all things necessary to enter into an agreement with the Genesee County Health Department, in an amount NOT-TO-EXCEED \$454,795.00, over the final 12-month grant period, July 1, 2021, until June 30, 2022. [NOTE: The City of Flint was awarded a grant to identify and provide health services to determined cohort children and families, and continued coordination of

parent advisory groups of those impacted by the Flint Water Emergency by promoting the recovery of various health barriers.]

- 210477** Settlement/Joshua Klier v City of Flint, et al/Genesee County Circuit Court Case No. 20-114721

Resolution resolving that the Flint City Council approves and consents to the city settling Joshua Klier v City of Flint, et al, Genesee County Circuit Court Case No. 20-114721, for an amount NOT-TO-EXCEED \$75,000.00, with payment drawn from appropriated funds in the Litigation and Suits Line Item No. 677-266.200-956.300. [NOTE: An Executive Session was requested on this matter on September 27, 2021.]

LIQUOR LICENSES

INTRODUCTION AND FIRST READING OF ORDINANCES

- 210332** Amendment/Ordinance/Chapter 9 (Animals and Fowl)/Article I (In General)/Section 9.1 (Cruelty to Animals Prohibited)/Addition of Sections 9-1.1 through 9-1.6

Ordinance to amend the Code of the City of Flint by amending Chapter 9 (Animals & Fowl), Article 1 (In General) by amending 9-1 (Cruelty to Animals Prohibited) by adding Sections 9-1.1 through 9-1.6.

- 210397** Amendment/Ordinance/Chapter 18 (Taxation; Funds; Purchasing)/Article I (In General)/Section 18-4.1 (Service Charge in Lieu of Taxes for Housing Facilities for Certain Persons)

The provisions of Chapter 18, (Taxation; Funds; Purchasing); Article I, (In General); Section 18-4.1, (Service Charge in Lieu of Taxes for Housing Facilities for Certain Persons) shall be amended by adding subsection (CC). [NOTE: The PILOT is for the Grand Flint Limited Dividend Housing Association, LP, a Michigan Limited Partnership (The Grand on University). The annual service charge for the class of persons of low and moderate income shall be equal to four (4) percent of the annual shelter rents, exclusive of charges for gas, electricity, heat or other utilities furnished to the occupants.]

OTHER GENERAL CITY BUSINESS

ADDITIONAL DISCUSSION ITEMS

FINAL COUNCIL COMMENTS

ADJOURNMENT



RESOLUTION NO.:

210157

PRESENTED:

APR - 7 2021

ADOPTED:

**RESOLUTION FOR THE APPOINTMENT OF DR. NANCY LOVE TO THE WATER
SYSTEM ADVISORY COUNCIL**

BY THE MAYOR:

WHEREAS, pursuant to the State of Michigan's administrative rules section 325.10410(7), water supplies serving a population of 50,000 or more, and consecutive systems serving a population of 50,000 or more, shall create a water system advisory council;

WHEREAS, the council shall consist of at least five members, appointed by the community supply;

WHEREAS, the purpose of this council is to improve transparency in the City of Flint community by developing materials and advising the water system on public awareness and education efforts.

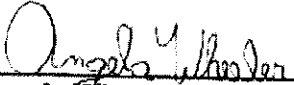
WHEREAS, to be eligible for appointment to the council, an individual shall have a demonstrated interest in or knowledge about lead in drinking water and its effects.;

WHEREAS, the council will develop plans for continuing public awareness about lead in drinking water, even when the action level is not exceeded; review public awareness campaign materials provided by the statewide drinking water advisory council to ensure the needs and interest of the community, considering the economic and cultural diversity of its residents, are addressed; advise and consult with the water supply on the development of appropriate plans for remediation and public education to be implemented if a lead action level is exceeded; advise and consult with the water supply on efforts to replace private lead service lines at locations where the owner declined service line replacement; assist in promoting transparency of all data and documents related to lead in drinking water within the water supply service area

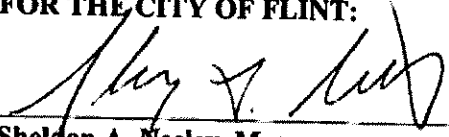
WHEREAS, Mayor Neeley desires to appoint Dr. Nancy Love to the Water System Advisory Council (See Attached Resume).

NOW THEREFORE BE IT RESOLVED, that Mayor Neeley hereby appoints Dr. Nancy Love address 1351 Beal Avenue, Ann Arbor, MI 48109 to serve on the Water System Advisory Council.

APPROVED AS TO FORM:


Angela Wheeler, City Attorney

FOR THE CITY OF FLINT:


Sheldon A. Neeley, Mayor

APPROVED BY CITY COUNCIL:

Kate Fields, City Council President

S:\AWO\Water System Advisory Council\Revised Documents\J.Gaskin (Clean Copy) Resolution to Appoint to the Water System Advisory Council (1).doc

NANCY G. LOVE, Ph.D., P.E., BCEE

Borchardt and Glysson Collegiate Professor

3BUniversity of Michigan, 4B183 EWRE, 1351 Beal Avenue, Ann Arbor, MI 48109-2125

0BVoice: (734) 763-9664; 2BE-mail: nglove@umich.edu; N-E-Wcycles.org (*under construction*)**RESEARCH OVERVIEW**

In collaboration with my students, I work at the interface of water, infrastructure, and public health in both domestic and global settings. My group advances public and environmental health using chemical, biological, and computational approaches applied to water systems, and co-design methods in partnership with communities. Specific project areas include: evaluating the fate of chemicals, pathogens and contaminants of emerging concern in water with relevance to public health and the environment; using technologies to sense and remove these constituents; advancing technologies that recover useful resources from water, and developing approaches that enable local decision-making around water quality, resource efficiency, and equity.

EDUCATION

Doctor of Philosophy Environmental Systems Engineering, Clemson University Advisor: C. P. Leslie Grady Jr.	1994
Masters of Science Civil Engineering, University of Illinois at Urbana-Champaign Advisor: John T. Pfeffer	1986
Bachelors of Science Civil Engineering, University of Illinois at Urbana-Champaign	1984

PROFESSIONAL EXPERIENCE AND LICENSURE

Professor Department of Civil & Environmental Engineering, University of Michigan (U-M) Co-Founder and Co-PI, Environmental Biotechnology Lab, U-M	2008-present
U-M Faculty Affiliate Graham Sustainability Institute (http://graham.umich.edu/); Energy Institute (https://energy.umich.edu/); Poverty Solutions Institute (https://poverty.umich.edu/); African Studies Center (https://li.umich.edu/asc)	Present
Licensed Professional Engineer Environmental Engineering, State of Michigan, License No. 6201057483.	2010 - present
Adjunct Professor Institute of Biotechnology, Addis Ababa University, Ethiopia	2016 - 2019
Staff UNESCO-IHE (United Nations Water Education Institute), sabbatical	Feb – July 2014
Associate Dean for Academic Programs and Initiatives Horace H. Rackham School for Graduate Studies	2011 - 2012
Board Certified Environmental Engineer (BCEE) Certified by Eminence, American Academy of Environmental Engineers	2011-present
Department Chair Department of Civil and Environmental Engineering, University of Michigan	2008 – 2011
Professor Department of Civil and Environmental Engineering, Virginia Tech	2005 – 2007
Adjunct Professor Department of Biological Sciences, Virginia Tech	2002 – 2007

Associate Professor Department of Civil and Environmental Engineering, Virginia Tech	2000 – 2005
Assistant Professor Department of Civil and Environmental Engineering, Virginia Tech	1994 – 2000
Co-Founder and Co-Principal Investigator at Virginia Tech Environmental BioNanoTechnology Laboratory, Virginia Tech Fralin Environmental Biotechnology Laboratory, Virginia Tech	2005 – 2007 1995 – 1999
Project Engineer CH2M Hill, Inc. (now Jacobs Engineering Group), Dallas, Texas	1986 – 1989

ADMINISTRATIVE ACCOMPLISHMENTS

- | | |
|--|----------------------|
| <ul style="list-style-type: none"> Became Diversity, Equity, and Inclusion (DEI) chair in the summer of 2020 to re-envision leadership around DEI and lead a collaborative team to develop an actionable roadmap for change. The committee was transformed to include voting members from across the department (students, staff, post-docs and faculty), all member categories were given equally visible leading positions in the committee, and structured the committee operating practices toward transparency and inclusion to serve as a model. A roadmap to drive systemic change was drafted, vetted, modified and is being finalized for publication. The roadmap includes efforts and goals across six pillars (recruiting a diverse community; building and valuing DEI skills; fostering a strong, connected, and successful community; developing a healthy and safe environment for mentoring, sponsorship, and advocacy; enabling an honest and transparent dialogue; and transforming our curriculum). In anticipation of an upcoming sabbatical and to ensure leadership continuity, I stepped down as lead once the roadmap was entering final production. This allows a new leader to be established in time for the public launch. | July 2020 - current |
| <ul style="list-style-type: none"> As a member of the board of the Association of Environmental Engineering and Science Professors (a position elected by the organization's membership), I was elected onto the Vice-President, President-Elect, and President path by the board. As president, I engaged international members by hosting the first AEESP-International Water Association (IWA) joint reception at the IWA World Congress in Quebec City, and appointed international members to key committee leadership positions. I also initiated the movement of the organization from being self-run to using a management company that continues to oversee the board's functions. This has allowed the board to act more as a visionary and less as a managing body. All these changes remain today. | 2007-2011 |
| <ul style="list-style-type: none"> As department chair of Civil and Environmental Engineering at the University of Michigan, I lead or oversaw: a significant transition in administrative staff; centralization of departmental operating management to enhance efficiencies; the development of procedures to achieve a balanced budget; the development of standard operating procedures and a governing document for the first time; the development of new strategic directions for the department; an increase in external funding of 40%; the doubling of student enrollments within a 5 year period; addition of \$8.5 million to the department's endowment; and hiring five faculty. | Jan 2008– Aug 2011 |
| <ul style="list-style-type: none"> As a co-PI of the \$3.5 million Virginia Tech NSF Advance Institutional Transformation Grant focused on women's leadership in academia, I lead activities associated with graduate student and post-doctoral engagement toward the professoriate. | July 2003– June 2008 |

MAJOR HONORS AND NOTABLE RECOGNITIONS

• American Society of Civil Engineers Wesley W. Horner Award for Daigger et al., Progress and Promise Transitioning to the One Water/Resource Recovery Integrated Urban Water Management Systems. <i>J Env Eng</i> , 2019.	2021
• American Academy of Environmental Engineers & Scientists Science Award	2020
• University of Illinois Urbana-Champaign Civil & Environmental Engineering Alumni Assoc. Distinguished Alumna Award	2020
• Kappe Lecture, American Academy of Environmental Engineers & Scientists	2019 - 2020
• AEESP/WEF Master Lecture: An Academic Perspective on Rethinking Urban Water Infrastructure Across the Classroom, Lab and Field. WEFTEC 2017, Chicago IL. October 2, 2017.	2017
• Distinguished Faculty Fellow in Sustainability, University of Michigan	2017-present
• Named Borchardt and Glysson Collegiate Professor, University of Michigan	2016
• Elected Fellow, Association of Environmental Engineering & Science Professors.	2015
• <i>Environmental Science and Technology Letters</i> , Best of the Best Paper Award for Delgado Vela et al. 2015 (see publications list).	2015
• Selected AEESP Distinguished Lecturer.	2015-2016
• Elected Fellow of the International Water Association.	2014
• Alec Gallimore Faculty Award from the Society of Minority Engineers and Scientists - Graduate (SMES-G) for being an effective advocate, ally and advisor to students of color, April 2012.	2012
• Gordon Maskew Fair Distinguished Engineering Educator, Water Environment Federation.	2011
• Elected Fellow of the Water Environment Federation. Inaugural class.	2011
• Certification by Eminence, Board Certified Environmental Engineer (BCEE). American Academy of Environmental Engineers.	2011
• President and Member of the Board, Association of Environmental Engineering and Science Professors. Position on Board of Directors is elected nationally, and position of president is then elected by the Board of Directors.	2007 - 2011
• Rudolfs Industrial Waste Management Medal for noteworthy accomplishments in industrial waste management research, Water Environment Federation. For Henriques et al. 2007. Activated sludge inhibition by chemical stressors – a comprehensive study. <i>Water Environment Research</i> 79(9):940-951.	2008
• CEE Alumni Teaching Excellence Award, Virginia Tech	2006
• Women's Center Advancing Women Award, Virginia Tech	2005
• Excellence in Research Award, College of Engineering, Virginia Tech	2005
• Faculty Fellow, \$15,000 over 3 years, College of Engineering, Virginia Tech	2003 – 2006
• Harrison Prescott Eddy Medal for outstanding contribution to wastewater principles/process research, Water Environment Federation. For Charles B. Bott and Nancy G. Love, for "Investigating a mechanistic cause for activated sludge deflocculation in response to shock loads of toxic electrophilic chemicals." <i>Water Environment Research</i> , 74:306-315 (2002).	2003
• Outstanding Young Alumni, College of Engineering & Science, Clemson Univ.	2002
• Paul L. Busch Award for Innovation in Applied Water Quality Research, Water Environment Research Foundation (\$100,000)	2001

- National Science Foundation CAREER Award Recipient 1995
- American Association of University Women Selected Professions Fellow 1993
- Chi Epsilon Civil Engineering Honor Society initiate 1985

PROFESSIONAL MEMBERSHIPS, ACTIVITIES AND APPOINTMENTS

Editorial Boards

- **ACS ES&T Engineering**, Associate Editor (inaugural) 2020 - present
- **Water Environment Research**
Editorial Board 2019 – present
Editor-in-Chief search committee 2009
Associate Editor 2002 - 2005
- **Environmental Engineering Science**, Editorial Board 2015 - present

Current Memberships and Activities

- **American Association for the Advancement of Science**
Member 2016 - present
- **American Academy of Environmental Engineers and Scientist (AAEES)**
Member 2011 – present
Board Certified Environmental Engineer (by eminence) 2012 – present
Environmental Engineering Science Awards Committee 2020 - present
Environmental Engineering and Science Foundation Board of Directors 2014-2016
- **American Chemical Society**
Member 2012 - present
- **American Society of Civil Engineers (ASCE)**
Member Discontinuous
Active participant: ASCE Department Chair's meetings 1980's – present
EWRE Sustainability subcommittee 2008-2011
2007 - 2009
- **American Society for Engineering Education**
Member Discontinuous
1994 - present
- **Association of Environmental Engineering and Science Professors**
Member and Fellow (2015) 1994 – present
Master's Thesis Awards Subcommittee (Chair, 1999) 1997 – 1999
Awards Committee (Chair, 2006-2007) 2004 – 2007
Board of Directors (Elected by membership; elected by board as Vice-President 2008-2009; President-Elect 2009-2010; President 2010-2011) 2007 – 2011
Co-Chair, AEESP 2017 Biannual Conference 2016-2017
AEESP Fellows Selection Committee 2018
- **International Water Association**
Member and Fellow (2014) 1989 – present
Environmental Engineering Education specialist's group, chair effective 2014 2006 - present
Microbial Ecology in Water Engineering (MEWE, formerly Activated Sludge Population Dynamics) Specialty Group member 1995 – present
MEWE program committee 2005 - 2019
Chair, MEWE2013 conference, Ann Arbor, Michigan USA 2012 - 2013
Leading Edge Technology (LET) Program Committee 2007 – 2009
Instrumentation, Control and Automation Group 2001 – 2007
Organizing Committee, Nutrient Management 2007 Workshop 2005 – 2007

MEGA working group member	2005 – 2008
Biofilms 2010 Conference Program Committee	2009 – 2010
• Water Environment Federation	
Member and Fellow (2011)	1986 – present
Awards Committee	2012 - present
Research Symposium Subcommittee	1999 – 2003
Virginia WEA Student Activities Committee	1997 – 2007
Work Force Task Force – WEF Presidential Appointment	2008 – 2009
Nutrient Specialty Conference Program Committee	2008 - 2009
Chair, Academic Committee	2009 – 2013
• Water Environment Research Foundation	
Leaders Innovation Forum for Technology (LIFT) Steering Committee	2015 – current
Chlorination Control and Monitoring Practices Project Advisory Committee	2000 - 2002
Wastewater Security Project Subcommittee	2003 – 2004
Sensors for Security in WWT Systems Project Advisory Committee	2005 – 2007
Paul L. Busch Award Selection Committee	2005 – 2011
Membrane Aerated Biofilm Reactor Project Advisory Committee, U2R14	2016-2018
Current Board Appointments	
• National Water Research Institute Independent Science Advisory Panel for Metropolitan Water District	2019-present
• ReNUWit Engineering Research Center Science Advisory Board, Stanford, UC-Berkeley, Colorado School of Mines, New Mexico State University	2015-2020
• University of Iowa NSF Sustainable Water Development Graduate Program Advisory Board Member	2017-2019
Prior Memberships, Activities and Board Appointments	
• American Society for Microbiology, Member	1991–2010
• Environmental Protection Agency	2010 - 2012
EPA Science Advisory Board, Drinking Water Subcommittee	
• Appointed Member, Michigan Department of Agriculture/Michigan Department of Environmental Quality Food Processors Working Group	2009 - 2010
• Michigan Economic Development Corporation (MEDC) Water Cluster Committee, establishing water-based technology investment goals for Michigan.	2008 – 2010
• National Society of Professional Engineers	
Member	Discontinuous
• Member, NSF's CLEANER (later, WATERS Network) Initiative as (a) planning phase participant, (b) Co-PI on environmental impacts to coastal margins planning grant and (c) Member, sensor sub-committee.	1987 - 2019
	2002 – 2007
• Appointed by Governors Warner and Kaine (Virginia) to the Scientific and Technical Advisory Committee to the Chesapeake Executive Council	2005 – 2007
Workshop co-chair and author, Establishing a Research Agenda for Assessing the Bioavailability of Wastewater-Derived Organic Nitrogen in Treatment Systems and Receiving Waters, September 27 and 28, 2007, Baltimore, Maryland.	
Hhttp://www.chesapeake.org/stac/Pubs/eonreport.pdf	
• Women in Engineering Leadership Institute (WELI) Strategic Planning Committee	2004 – 2005

MAJOR COMMUNITY SERVICE AND OUTREACH ACTIVITIES

- **N95DECON.org.** A consortium of volunteer researchers from universities across the United States and world who worked to decipher, evaluate, and disseminate technically accurate information about N95 respirators as well as other kinds of masks and face coverings, in response the coronavirus pandemic. A key member of the Heat Treatment sub-team and participant in other subcommittees, as needed. April 2020 - present
- **City of Flint Technical Advisory Committee.** Appointed by Mayors Weaver (2017-2019) and Neeley (2019 – current) to provide guidance on behalf of the city's efforts in response to the Flint Water Crisis and other environmental and public health needs. 2017 – present
- **Train-the-Trainers.** Designed, developed, and delivered a curriculum about faucet-mounted point-of-use filters to Flint residents who became trainers for other Flint residents. Syndicated the curriculum to other communities with input from Flint community and partners. 2018 - present
- **K-12 Drinking Water Filtration.** Working with multiple organizations in the following ways: (a) developing and providing technical guidance on assessing the performance of point-of-use filters and advanced hydration stations used in schools (Flint Community Schools, Ann Arbor Public Schools); (b) provided technical input to the development of a model law by the National Resources Defense Council; (c) serving in a technical advisory role to the FilterFirst grassroots initiative that has successfully introduced bipartisan legislation in the State of Michigan to require point-of-use filtration of drinking water in schools and daycare centers throughout the state. 2018 - present
- **Partnerships around Research and Education in Ethiopia.** Partnering with faculty in various Institutes at Addis Ababa University in Ethiopia to advance graduate education as new Ph.D. programs are implemented. Create opportunities for AAU students to visit U-M for beneficial research experiences and partner those students with U-M Ph.D. students who serve as peer collaborators. Serve on the Ph.D. committees of AAU students. 2017 - 2019
- **Community-Targeted Scholarship**
N. G. Love, R. Jackson, S. P. McElmurry. Water Stays in the Pipes Longer in Shrinking Cities – A Challenge for Public Health. *The Conversation*, May 24, 2019. <http://theconversation.com/water-stays-in-the-pipes-longer-in-shrinking-cities-a-challenge-for-public-health-116119>
N. G. Love. We All Deserve to Have Confidence in Our Water. *Medium*. May 10, 2019. https://medium.com/@nglove/we-all-deserve-to-have-confidence-in-our-water-6994b2f7e00c?source=friends_link&sk=a1703f45b60797717658138319b971b1

MAJOR UNIVERSITY, COLLEGE & DEPARTMENT SERVICE/PROGRAMMATIC RESPONSIBILITIES

University of Michigan

- President's Public Health Advisory Committee on COVID Fall 2020-present
- UM Center for Global Health Equity Leadership Council, and co-chair of Climate Vulnerability and Health group. \$20 million center that is launching in 2021. Aug 2020-present
- University of Michigan Scientific Reviewer, Institutional Biosafety Committee (IBC), appointed by Vice President for Research July 1, 2020 – June 30, 2023
- CEE Diversity, Equity, and Inclusion Chair (through 2020), then committee member Aug 2020–present
- CEE Executive Committee (elected position) 2019-2021
- Undergraduate Recruitment Committee 2019-2020
- Richart Lecture Committee 2017-2018

• Advisory Group on University of Michigan activities in Ethiopia, Provost's office	2019-2020
• Advisory Group: U-M Lead and Copper Rule Project, Graham Institute overseeing Mott Foundation project.	2017-2019
• Civil and Environmental Engineering Strategic Plan Implementation and Development Committee, Revising plan in 2017-2018	2018-2019
• College of Engineering Graduate Recruitment, Retention & Summer Programs Advisory Group	2013-2018
• Internal Advisory Board Member, Center for Socially-Engaged Design	2017-2018
• Administrative Structure Working Group, School of the Environment and Sustainability Transition Subcommittee	2017-2020
• U-M ADVANCE LAUNCH Committee Chair	2017
• College of Engineering Promotion, Tenure and Reappointment Process Review Committee, Chair	2016-2017
• UM Energy Institute Faculty Affiliate (https://energy.umich.edu/)	2017
• College of Engineering Faculty Search Committee for positions in Engineering Education Research (EER)	2018-present
• Ethiopia – Michigan Collaborative Consortium (EMC2) Planning Committee, appointed by Assoc Provost James Holloway	2015-2016
• Provost's Committee on Environment and Sustainability	2015-2018
• Provost's Poverty Visioning Committee	2016
• Integrated Training in Microbial Systems (ITiMS) (Burroughs Wellcome Fund training program) Faculty Affiliate	2015-2016
• President's Advisory Commission on Women's Issues	2015 - present
• President's Postdoctoral Fellowship Advisory Committee	2014-2015
• Rackham Graduate School Dean Search Committee	2014-2015
• Provost's Promotion and Tenure Committee	2014
• Mentoring Others Results in Excellence (MORE) Committee, Rackham Graduate School, Member and Chair	2013
• Alumni Liaison Committee, Civil and Environmental Engineering	2012 - 2013
• Deans Advisory Committee on Female Faculty, College of Engineering	2012-2014
• Faculty Search Committee Co-Chair, Civil and Environmental Engineering	2012-2013
• Center for Molecular and Clinical Epidemiology of Infectious Diseases (MAC-EPID) Faculty Affiliate	2011-2012
• Graham Sustainability Institute Faculty Affiliate	2009 - present
• College of Engineering Alumni Awards Selection Committee	2009 - current
• Graham Environmental Sustainability Institute, Executive Committee	2011
• College of Engineering Dean's Advisory Committee on Faculty Diversity	2009 - 2011
• Provost's Office - Classroom Emergency Training Video Planning Group	2010 - 2012
• College of Engineering <i>ad hoc</i> Committee on Graduate Student Excellence	Fall 2008 – 2009
Virginia Tech	Summer 2008
• Chair, College of Engineering "Think Tank" Committee (6 faculty)	2006 – 2007
• Space/Overhead Return Allocation <i>ad hoc</i> Committee, Provost apptmt	2005

- College of Engineering Dean's Search Committee 2005
- co-Coordinator, Via Academic Preparation Program for graduate student professional development, Dept of Civil and Environmental Engineering 2004 – 2007
- co-Principal Investigator and Advance Professor for \$3.5 million NSF Advance Institutional Transformation grant focused on increasing the participation and advancement of women in academic STEM careers. Chair: Advancing Women into the Profession 2003 – 2006
- Environmental Public Health Committee 2003 – 2004
- Provost's Implementation Committee, Biomedical & Public Health Institute 2002
- Board of Directors, WPI, Inc., a Virginia Tech affiliated company. 2001 – 2003
- Provost's Environmental Health Committee 2002
- Provost's Committee on Biomedical Research 2001 – 2002
- College of Engineering Diversity Committee 2001 – 2005
- Environmental Engineering Laboratory Coordinator & staff supervisor 1997 – 2005
- University Cross Cutting Initiatives Committee, Environment & Energy 1998 – 2000
- Fralin Biotechnology Center 5 Year Review Committee 2000
- Environmental Engineering Graduate Student Recruitment Officer 2000

UNIVERSITY TEACHING RESPONSIBILITIES

Introduction to Environmental Engineering; Models in Environmental Engineering; Water and Wastewater Treatment Design; Applied Biology of Environmental Systems; Biological Treatment Processes: Theory and Design; Environmental Microbiology; Introduction to Civil and Environmental Engineering; Engineering Solutions to Global Water Issues (Freshmen Design-Build-Test course); Decentralized Water Supply, Hygiene and Sanitation (co-produced with faculty at Addis Ababa University, Ethiopia); Urban Environmental Systems: Project-based Experiences for Students (focused on a diverse group of students in Engineering; Urban Planning, Public Health, Environment & Sustainability); Robots, Sensors and Smart Water Systems (co-developed Freshmen Design-Build-Test Course)

ADVISING RESPONSIBILITIES

Currently serving as advisor for 2 undergraduate research students, 1 master's students, and 8 Ph.D. students. Previously advised 44 M.S. students with thesis or significant project, 18 Ph.D. students, 7 post-doctoral research associates, and 36 undergraduate research projects/theses.

Major Undergraduate Research Projects

1. Harrison Suchyta. Summer 2019-current. Developing urine-derived fertilizers for flowering and woody plants at UM's Botanical Garden.
2. Leah Pifer. Fall 2019 – current. Developing an algorithm for a hand-held water quality monitoring strip.
3. Julia Raneses. Fall 2019 – Aug 2020. Building-Scale Urine Separation Systems.
4. Kensey Dahlquist. Spring 2019 – current. Projects in support of building-scale urine separation, collection and processing for nutrient-energy-water cycling.
5. Yen Jee Ooi. Summer 2018 (at Rich Earth Institute), then Fall 2018-2019. Nutrient analysis for NSF INFEWS project.
6. Brittany Brown. Summers 2017 and 2018. Characterization of *Stenotrophomonas maltophilia* from drinking water through culturing and qPCR, and bioavailability of high versus low water age carbon.
7. Myriam Samment. 2018 summer. Bioavailability of high versus low water age carbon in drinking water isolates.
8. Alexi Sinanaj. 2017 – 2018. Pharmaceutical removal from urine through activated carbon adsorption.
9. Brady Nishimiya. 2017-2018. Disinfection residual effectiveness of point-of-use product.
10. Nicholas Lowe. 2017-2018. Automated flushing device to improve water quality through point-of-use drinking water filters.

11. Dylan Raye-Leonard. 2016-2018. Urine-derived fertilizer project.
12. Brittany Brown. 2016. Microbial ecology of novel nitrogen removal systems.
13. Ishi Keenum. 2015 – 2016. Plasma treatment of source-separated urine for fertilizer development (co-mentor with K. Wigginton).
14. Mariah Gnegy. 2015-2016. DNA-based analysis of bacteria and viruses in source separated urine (co-mentor with K. Wigginton).
15. Weitian Wang. 2010-2011. Microaerobic Removal of Pharmaceuticals from Wastewater
16. Celine Saucier. 2010-2011. Nitrate Removal to Enable the Effluent Organic Nitrogen Bioassay
17. Bryan VanDuinen. 2009. Life Cycle Assessment of Various Disposal Methods for Unused Pharmaceuticals.
18. Shayan Sengupta. 2009: Assessing the Toxicity of Pharmaceuticals at Doses Expected from Secondary Infections Experienced During a Pandemic.
19. Genevieve Ho. 2008-2009: First project - Assessing a Thin-Film pH Biosensor. Second project – Abiotic Ammonia release from Effluent Organic Nitrogen Along Salinity Gradients.
20. Brian Harris. 2007: Assessing Oxidative Stress Response Function of Alginate-Immobilized Bacteria
21. Zachary Frye. 2006. Assessing the Feasibility of Nanostructure-Enhanced Nitrifying Microbial Fuel Cells
22. Brian Segal. 2006-2007. Evaluation of Ammonia Oxidizing Bacterial Biofilms.
23. Stephanie Harris. 2005-2006. Development of a Microfluidic Immunomagnetic Separation Biosensor for Detecting Bacterial Pathogens.
24. Beth McConnell. 2003-2004. The Affect of Physiology on Bacterial Responses to Oxidative Uncouplers
25. Suzanne Ayers. 2002. VIA Undergraduate Scholar: Evaluating the Impact of Toxic Shocks on Wastewater Treatment Performance
26. Felicia Glapion. 2001-2002. NEM-Induced Potassium Efflux in *Pseudomonas aeruginosa*
27. Monica Mace. 2000-2001. GE Scholarship: Denitrification of Aquaculture Wastewaters
28. Denise Gillam. 2000. Water Center Undergraduate Fellowship: The Impact of Potassium Efflux on Biofilm Treatment Systems Exposed to Electrophilic Toxins
29. Mike Gatz. 1999-2000. Using Two-Dimensional Gel Electrophoresis to Characterize Stress Proteins (Co-advised with Dr. Ann Stevens)
30. Bethany McRae. 1999-2000. NSF REU: Induction of the Glutathione-Gated Potassium Efflux System in *Sphingomonas capsulata* Exposed to HOCl
31. Jennifer Abrajano. 1999-2000. NSF REU: Assessing the Metabolism of Xenobiotic Compounds by Microaerobically-Grown Magnetotactic Bacteria
32. Scott Phipps. 1998-1999. Dewatering of Oily Wastewater Sludges. (Co-advised with Dr. John Novak)
33. Katya Bilyk. 1998-1999. NSF REU: Nitrite Inhibition and Toluene Degradation Under Denitrifying Conditions
34. Julie Wheeler. 1997-1998. NSF REU: Impact of Xenobiotic Stressors on Activated Sludge System Performance
35. Mary Rust. 1996-1997. Water Center Undergraduate Fellowship and NSF REU: Development and Isolation of Acetaldehyde Oxime and Methylethyl Ketoxime Degrading Cultures
36. Elliott Wheeler. 1995-1996. The Role of Various Cations in Settling and Dewatering of Biological Wastewater Treatment Sludges
37. Jon Treadway. 1995. Determination of Proteins in Activated Sludge Using Commercial Assays
38. Kevin Gilmore. Fall 1995: The Impact of Oximes on the Degree and Rate of Nitrification in Activated Sludge Cultures. Spring 1996: Evaluation of Chemical Oxidation as Pretreatment for Wastewaters Containing Aldicarb Oxime

Masters Students with Theses, Extensive Research Project, or Project Report

1. Julia Raneses. 2019 – current. Nutrient balances at the community scale.
2. Nick J. Lowe. 2018 – 2019. Toxicological monitoring of SWIFT effluent from Hampton Roads Sanitation District.

3. Avery Carlson. 2016 – 2018. Isolating and identifying comma-shaped nuisance bacteria in Traverse City's membrane bioreactor treatment system. (co-advised with Glen Daigger)
4. Enrique Rodriguez. 2016 – 2018. Plasma as a platform for advanced oxidation of urine to generate safe fertilizers (co-advised with Krista Wigginton)
5. Zixu Zhao. 2016-2017. Optimizing flushing to reduce microbial contamination of point-of-use filtered drinking water.
6. Andrea McFarland. 2015 – 2018. NSF Fellowship Recipient. Water quality benefits due to green infrastructure. (Co-advised with Larissa Larsen, Urban Planning). National Achievement: NSF Graduate Research Fellowship.
7. Samayyah Williams. 2014-2015. Modeling, understanding, and assessing technologies for the Detroit Water and Sewerage Department (DWSD) Wastewater Treatment Plant.
8. Nigel Beaton. 2014-2015. Low energy-demanding nitrogen removal from anaerobic effluents using biofilm technologies.
9. Anton Dapcic. 2013 -- 2014. A performance evaluation of the WASACTM energy recovery process.
10. Angelica Perez De La Rosa. 2010-2012. The impact of chlorinated phenols on the microbial ecology of point-of-use drinking water filters.
11. C. Davis Powell. 2011-2014. Evaluating the environmental impacts of urine source separation.
12. Chris Moline. 2010-2011. The fate of pharmaceuticals in microaerobic biological treatment processes.
13. Alexi Ernstoff. 2009 – 2011. The impact of culturing buffer on the ability of *Nitrosomonas europaea* to biotransform 17 α -ethinylestradiol. Current affiliation – Ph.D. student, Technical University of Denmark.
14. Sam Hardin. 2006-2011. The effectiveness of corrective action strategies on chemically stressed biological wastewater treatment systems. Current affiliation – environmental engineering consulting. National Achievement: WEFTEC Best Poster, 1st Place, 2008.
15. Romeo Capuno. 2005-2007. Modeling anaerobic ammonia oxidizing biofilms. Current affiliation – environmental engineering consulting.
16. Jason Beck. 2005-2007. Evaluating deammonification processes to achieve nitrogen removal from dairy waste. Current affiliation – environmental engineering consulting.
17. Jeremy Guest. 2005-2007. Laboratory testing of process controls for the mitigation of toxic shock events at enhanced biological phosphorus removal wastewater treatment plants. Current affiliation – Assistant Professor, University of Illinois.
18. Kaoru Ikuma. 2004-2007. The development of a bacterial biosensor designed to detect oxidative chemicals in water: correlating sensor relevance to mammalian brain cells and assessing bacterial cell immobilization strategies. Current affiliation – Assistant Professor, Iowa State University.
19. Mert Muftugil. 2004-2011. Enhanced Biological Phosphorus Removal of Dairy Manure using Sequencing Batch Reactors: Performance, Kinetics and Model Development. Current affiliation – environmental engineering consulting.
20. Anna Zaklikowski. 2004-2006. Evaluating the Effectiveness of Disinfection Strategies in the Inhibition and Inactivation of Ammonia Oxidizing Bacteria. Current affiliation – environmental engineering consulting.
21. Ka Man Chan. 2004-2005. Feasibility Study of In Situ Bioremediation of Bis(2-Chloroethyl) Ether and 1,2-Dichloroethane. Affiliation upon graduation – water utility.
22. Paul Sweetman. 2004-2005. Evaluating the Fate of Manure Nitrogen in Confined Dairy Waste Operations: A Full-Scale Waste Analysis and Start-up Protocol for an Anammox –Based Treatment Technology Applicable to Dairy Waste Management. Affiliation upon graduation – government position in Ireland.
23. Irina Chakraborty. (Degree from University of Helsinki, Finland) 2002-2005. Characterizing the Adaptation of a Subsurface Microbial Community using Biomolecular Tools (co-advised with Dr. Ann Stevens, Biology). Affiliation upon graduation – Ph.D. student in environmental microbiology.
24. Katharine Linares. 2002-2004. Development of a Biosensor for Detecting Toxic Electrophilic Chemicals in Waters. Current affiliation – environmental engineering consulting.

25. Jennifer Dauphinais. 2002-2003. Effects of Toxic Chemicals on Biological Wastewater Treatment Processes. Current affiliation – US government-based environmental services.
26. Rachelle Rhodes. 2002-2004. Subsurface Microbial Community Adaptation to Xenobiotic Influx. Current affiliation – environmental engineering consulting.
27. Susanna Leung. 2001-2003. Oxygen Transfer Efficiency in a Biological Aerated Filter (co-advised with John Little). Current affiliation – environmental engineering consulting.
28. Giacomo Sonzini. (Degree from Politecnico Di Milano, Italy) 2001. Investigation of K⁺ Efflux as Response to Intoxication for Nitrifying Activated Sludge. Affiliation upon graduating – financial analyst in Italy.
29. Kristina Yanosek (Biological Systems Engineering). 2000-2002. Enhanced Biological Phosphorus Removal from Dairy Manure to Meet Nitrogen and Phosphorus Crop Nutrient Requirements (co-advised with Dr. Mary Leigh Wolfe). Affiliation upon graduation – US Dept of Interior.
30. David Whichard. 2000-2001. Nitrogen Removal from Dairy Manure Wastewater Using Sequencing Batch Reactors. Affiliation upon graduating – environmental services in industry.
31. Kofi Asiedu. 2000-2001. Evaluating Biological Treatment Systems: I. Moving Bed Biofilm Reactor Versus Biological Aerated Filter. II. Sulfide-Induced Corrosion in Anaerobic Digester Gas Piping. Current affiliation – Engineer III, Prince William County, Virginia.
32. Melissa Fouratt (Biological Sciences). 1998-2001. Application of Molecular Techniques to the Characterization of a Nitrifying Bioaugmentation Culture (co-advised with Dr. Ann Stevens). Position upon graduation – pharmaceutical sales.
33. Scott Phipps. 1999-2001. Performance Evaluation and Yield Determination of a Full-Scale Biological Aerated Filter. Current affiliation – environmental engineering consulting.
34. Brian Brazil. 1999-2001. Evaluation of an Effluent Treatment Strategy to Control Nitrogen from a Recirculating Aquaculture Facility. Current affiliation – environmental engineering consulting.
35. Robert Wimmer. 1998-2001. Development of a Biosensor to Predict Activated Sludge Deflocculation and the Link Between Chlorination and Potassium Efflux. Current affiliation – environmental engineering consulting.
36. Arnaud Delahaye. 1997-1998. Distribution and Characteristics of Biomass in an Upflow Biological Aerated Filter. Affiliation upon graduation – Civil servant in France.
37. Karl Husovitz. 1997-1998. The Influence of Hydraulic Loading Rate on Nitrification Performance in a Two-Stage Biological Aerated Filter Pilot System. Current affiliation – environmental engineering consulting.
38. Kevin Gilmore. 1997-1999. Using Oligonucleotide Probes to Characterize Nitrification in a Two-Stage Pilot Plant Scale Biological Aerated Filter System. Current affiliation – Associate Professor, Bucknell University.
39. Jeff McGinnis. 1996-2003. Biodegradation and Dewatering of an Industrial Waste Oil. Current affiliation – environmental engineering consulting.
40. Jennifer Phillips. 1996-1997. Denitrification or Recirculating Aquaculture System Waters Using an Upflow Biofilter and a Fermented Substrate. Current affiliation – environmental engineering consulting.
41. Kristina Perri. 1996-1997. The Effectiveness of Multiple Redox Treatment Strategies on the Treatability of a High Strength Industrial Wastewater. Current affiliation – environmental engineering consulting.
42. James Drew Fettig. 1995-1998. A Study of the Patterns, Stoichiometry, and Kinetics of Microbial BTX Degradation Under Denitrifying Conditions by an Activated Sludge Consortium Receiving a Mixed Waste. Current affiliation – environmental engineering consulting.
43. Michelle Smith. 1995-1996. The Effect of Cation Addition on the Settling and Dewatering Properties of an Industrial Activated Sludge. Affiliation upon graduation – environmental engineering consulting in Canada.
44. Erika Lubkowitz (Bailey). 1995-1996. Biological Treatment Schemes for Preventing Oxime Inhibition of Nitrification. Current affiliation – environmental engineering consulting.

45. Patrick Brooks. 1995-1996. An Investigation of Temperature Effects on Denitrifying Bacterial Populations in a Biological Nutrient Removal System. Current affiliation – environmental engineering consulting.

Ph.D. Dissertations, Student Placement and Nationally Recognized Achievements by Mentees

1. Brittany Brown Hicks. 2019 – 2024 (anticipated). Project being defined. *National Achievement*: Ford Foundation Predoctoral Fellowship.
2. Alyssa Schubert. 2018 – 2023 (anticipated). Crowd-sourced water quality monitoring and community access to water monitoring.
3. Lucinda Li. 2018 – 2023 (anticipated). The impact of urine derived fertilizers on soil health (co-advised with Krista Wigginton).
4. Enrique Rodriguez. 2018 – 2022 (anticipated). Suspect screening, effect directed analysis and chemical risk of resource efficiency processes (co-advised with Krista Wigginton).
5. Hollie Adejumo. 2017 – 2022 (anticipated). The Toxicity and Transformation of Nitrogenated Disinfection Byproducts in the Human Gut (co-advised withi Laura Rozek). *National Achievement*: NSF Graduate Research Fellowship.
6. Avery Carlson. 2018 – 2021 (anticipated). Project topic being developed (co-advised with Glen Daigger)
7. Brett Wagner. 2016 – 2021 (anticipated). Membrane aerated biofilm reactor technology (co-advised with Glen Daigger). *National Achievement*: NSF Graduate Research Fellowship.
8. Sara Troutman. 2015-2020. Integrated urban water infrastructure systems modeling at the green and grey infrastructure interface. (co-advised with Branko Kerkez). *Current Affiliation*: Xylem, Inc. *National Achievement*: NSF Graduate Research Fellowship.
9. Zerihun Bekele Alemayehu. 2015-2020. Use of sensor-mediated controls to achieve enhanced, low energy nitrogen removal during mainstream wastewater treatment. (Co-advised with Charles Bott, Hampton Roads Sanitation District). *Current Affiliation*: Engineer with BASF Corporation.
10. Chia-Chen Wu. 2013- 2018. Bacterial colonization of point-of-use (PoU) drinking water filters, selection of opportunistic pathogens and presence of antibiotic resistance genes. (Co-advised with Terese Olson). *Current Affiliation*: Postdoctoral Research Associate, Wayne State University
11. Heather Goetsch. 2014 –2018. Evaluating the benefits and risks of source separation as a nutrient management strategy. (Co-advised with Krista Wigginton). *Current Affiliation*: Department of Energy. *National Achievement*: AAAS Fellow with the Dept of Energy.
12. Jeseth Delgado-Vela. 2012 –2018. NSF Fellowship Recipient and Ford Foundation Fellow. Nitrogen and Sulfur Cycling During Wastewater Treatment. (Co-advised with Greg Dick). *Current Affiliation*: Assistant Professor, Howard University, Washington D.C. *National Achievements*: NSF Graduate Research Fellowship; Ford Foundation Fellowship; AEESP Conference Best Student Presentation.
13. Lauren Stadler. 2010 – 2015. Fate of trace contaminants in bacterial communities under low dissolved oxygen environments. *Current Affiliation*: Assistant Professor, Rice University, Houston. *National Achievement*: NSF Graduate Research Fellowship; 2016 CH2M/AEESP Best Dissertation Award; AEESP Conference Best Student Presentation.
14. Sherri M. Cook. 2008-2014. Sustainable Waste Management: Modeling and Decision Strategies for Unused Medications and Wastewater Solids (Co-advised with Steve Skerlos). *Current Affiliation*: Assistant Professor, University of Colorado, Boulder. *National Achievement*: NSF Graduate Research Fellowship
15. Jeremy S. Guest. 2007-2012. Sustainable design of wastewater treatment systems: Evaluations of operational flexibility and phototrophs for resource recovery. (Co-advised with Steve Skerlos). *Current Affiliation*: Associate Professor, University of Illinois, Urbana-Champaign. *National Achievements*: 2014 NSF CAREER Award Recipient; 2016 Paul L. Busch Award, Water Research Foundation.
16. Ameet J. Pinto. 2005-2009. Upset Events at Wastewater Treatment Plants: Implications for Mitigative Strategy Development and Bioreactor Microbial Ecology. *Current Affiliation*: Assistant Professor, Northeastern University, Boston. *National Achievements*: 2018 NSF CAREER Award Recipient; 2018 ISME/IWA Rising Star Bio Cluster Award; 2019 Paul L. Busch Award, Water Research Foundation .

17. Wendell Khunjar. 2004-2009. Elucidating Factors that Impact the Removal of Organic Microconstituents by Heterotrophic and Ammonia Oxidizing Bacteria. *Current Affiliation*: Hazen and Sawyer Consultants.
18. Martin Musabyimana. 2005-2008. Deammonification Process Kinetics and Inhibition Evaluation. *Current Affiliation*: East Bay Municipal Utility District, San Francisco, CA.
19. Kevin R. Gilmore. 2005-2008. Treatment of High-Strength Nitrogen Wastewater With a Hollow-Fiber Membrane-Aerated Biofilm Reactor: A Comprehensive Evaluation. *Current Affiliation*: Associate Professor, Bucknell University.
20. Jocelyn Fraga Muller. 2002-2006. The Role of Multidrug Efflux Pumps in the Stress Response of *Pseudomonas aeruginosa* to Organic Contamination. (Co-advised with Ann Stevens) *Current Affiliation*: Community College Instructor.
21. Ines D. S. Henriques. 2001-2006. The Response of Activated Sludge Cultures to Toxic Chemicals: Process Performance Effects, Role of Floc Structure, and Detection of Physiological Changes by Footprinting Methods. *Current Affiliation*: Business CEO, Portugal. National Achievement: WEFTEC Best Poster 1st Place, 2003.
22. Richard T. Kelly II. 2001-2005. Chemical Inhibition of Nitrification: Evaluating Methods to Detect and Characterize Inhibition and the Role of Selected Stress Responses Upon Exposure to Oxidative and Hydrophobic Toxins. *Current Affiliation*: Brown and Caldwell, Seattle, Washington.
23. R. David Holbrook. 2000-2003. The Role of Colloids in Defining the Fate of Endocrine System Disrupting Chemicals in Wastewater Treatment Systems (Co-advised with Dr. John Novak). *Current Affiliation*: Chief, Surface and Microanalysis Sciences Division, National Institute of Standards and Technology. *National Achievement*: 2010 PECASE (Presidential Early Career Award for Scientists and Engineers) recipient.
24. Charles B. Bott. 1997-2001. Elucidating the Role of Toxin-Induced Microbial Stress Responses in Biological Wastewater Treatment Process Upset. Affiliation upon graduation: environmental engineering consulting, then Assistant and Associate Professor at Virginia Military Institute. *Current Affiliation*: Director of Water Technology and Research, Hampton Roads Sanitation District, Virginia. *National Achievements*: Parsons Engineering Science/AEESP Doctoral Thesis Award; AEESP Fred Pohland Medal.
25. Guihua Ma. 1995-1999. The Kinetics, Biochemical Patterns, and Microbial Ecology in Multiredox Activated Sludge Systems Treating BTX Containing Wastewater. *Current Affiliation*: KCI, Inc., Baltimore, MD.

Post-Doctoral Research Associates

1. William Tarpeh, 2017-2018. Pharmaceutical transformation products through urine-derived fertilizer processing technologies. Co-advised with K. R. Wigginton. *Current Affiliation*: Assistant Professor of Chemical Engineering, Stanford University.
2. Rebecca Lahr, 2015-2016. Microbial fate in source-separated urine. Co-advised with K. R. Wigginton. *Prior Affiliation*: Assistant Professor, Michigan State University.
3. Dr. Kelly Martin. 2013 – 2015. Innovative, Low Energy Nitrogen Removal from Anaerobic Effluents. *Current Affiliation*: Black and Veatch, Inc.
4. Dr. Sudeshna Ghosh. 2008-2012. Chemical stressor-induced antibiotic resistance. *Current Affiliation*: Self Employed.
5. Dr. Kartik Chandran. 2004-2005. Chemical stress mechanisms in nitrifying bacteria. *Current Affiliation*: Associate Professor, Columbia University. *National Achievements*: NSF CAREER Award recipient; 2015 MacArthur Fellow; 2010 Paul L. Busch Award, Water Research Foundation.
6. Dr. Jane Duncan. 1998-1999. Heat shock protein expression in response to chemical stress in activated sludge. *Current Affiliation*: Research Scientist, Dept of Biochemistry, Virginia Tech.
7. Dr. Kathy Terlesky. 1996-1997. Heat shock protein expression in response to chemical stress in activated sludge. *Current Affiliation*: Vice President, Division Manager, SAIC, Inc., Charlottesville, Virginia.

PUBLICATIONS

Textbooks

1. Grady, C. P. L. Jr., G. T. Daigger, N. G. Love and C. Filipe. 2011. *Biological Wastewater Treatment*, 3rd Edition, Taylor and Francis Publishers.

Peer-Reviewed Journal Articles (undergraduate students; graduate students; post-doctoral research associates; *corresponding or senior author)

2. Wigginton, K. R., P. J. Arts, H. Clack, W. J. Fitzsimmons, M. Gamba, K. R. Harrison, W. LeBar, A. S. Luring, L. Li, W. W. Roberts, N. Rockey, J. Torreblanca, C. Young, L. G. Anderegg, A. M. Cohn, J. M. Doyle, C. M. Meisenholder, L. Raskin, N. G. Love*, and K. S. Kaye*. 2021. Validation of N95 filtering facepiece respirator decontamination methods available at a large university hospital. *Open Forum Infectious Diseases*. Accepted. DOI: 10.1093/ofid/ofaa610.
3. Delgado-Vela, J., L. A. Bristow, H. K. Marchant, N. G. Love and G. J. Dick*. 2021. Sulfide alters microbial functional potential in a methane and nitrogen cycling biofilm reactor. *Environmental Microbiology*. Accepted.
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Refereed Conference Presentations (presenter in bold)

145. Hicks, B., C. C. Wu, M. B. Perri, Z. Zhao, M. Zervos, S. P. McElmurry, N. G. Love. Isolating and characterizing *Stenotrophomonas maltophilia* from drinking water point-of-use filters in an aged distribution system. Poster presentation. International Water Association Microbial Ecology of Water Engineering (MEWE) Biannual Conference, Hiroshima, Japan, November 17-20, 2019.
146. **Love, N. G.** The International Water Association Specialists Group on Environmental Engineering Education: History and Background. Podium Presentation for pre-conference workshop. International Water Association Microbial Ecology of Water Engineering (MEWE) Biannual Conference, Hiroshima, Japan, November 17-20, 2019
147. Love, N.G., A. Noe-Hays, D. Aga, J. Arvai, A. Cohen, G. Daigger, A. Davis, R. Dickman, R. Hardin, S. Hilton, G. Keoleian, L. Li, N. Lowe, R. Mullen, K. Nace, E. Rodriguez, T. Schreiber, S. Skerlos, W. Tarpeh, K. Wigginton. Achieving Nutrient Resource Efficiency through Urine Separation, Processing and Reuse: A Comprehensive Study. Podium Presentation. 3rd IWA Resource Recovery Conference, Venice, Italy, September 2019.
148. **Carma Lewis***, Elizabeth Burtch*, Nick J. Lowe, Audrey Rose Zarb, **Alyssa Schubert**, Janée Rankin*, Lydia Starrs*, Rochelle Kelly*, Richard Kelley*, Alyssa Schubert, Enrique Rodriguez, Lucinda Li, Audrey Pallmeyer, Shawn P. McElmurry, Nancy G. Love (*community collaborators from Flint, Ms. Lewis and Ms. Schubert gave the talk). Community-driven Train-the-Trainers program for point-of-use

- filter maintenance in communities affected by drinking water lead contamination. Podium Presentation. Association of Environmental Engineering and Science Professors Biannual Conference, Arizona State University, Tempe, Arizona. May 15-16, 2019.
149. **Tarpeh, W., Y. Du, C. Carpenter, D. Helbling, N. G. Love, K. R. Wigginton.** Suspect screening of pharmaceuticals during urine treatment processes. Podium Presentation. Association of Environmental Engineering and Science Professors Biannual Conference, Arizona State University, Tempe, Arizona. May 15-16, 2019.
 150. **Goetsch, H., L. Li, N. G. Love and K. R. Wigginton.** Understanding microbial agents in source-separated urine for the production of urine-derived fertilizers. Podium Presentation. Association of Environmental Engineering and Science Professors Biannual Conference, Arizona State University, Tempe, Arizona. May 15-16, 2019.
 151. **A. Noe-Hays, A. Davis, N. J. Lowe, J. Eraci, Y. J. Ooi, A. Sabido, K. Nace, E. Rodriguez, K. Wigginton, N. Love.** Onsite production of concentrated urine-derived fertilizer in building-scale systems using remote process monitoring and control. Poster Presentation. Association of Environmental Engineering and Science Professors Biannual Conference, Arizona State University, Tempe, Arizona. May 15-16, 2019.
 152. **Kerkez, B., N. G. Love, R. L. McCaffery, M. Bartos, J. Montgomery, E. TerBeek.** A First Year College Course on Smart Water Systems. Poster Presentation. Association of Environmental Engineering and Science Professors Biannual Conference, Arizona State University, Tempe, Arizona. May 15-16, 2019.
 153. **Cohen, A. S., N. G. Love, J. Árvai.** Consumers' preferences and perceptions regarding the use of urine-derived fertilizer for domestic agriculture. Poster Presentation. Association of Environmental Engineering and Science Professors Biannual Conference, Arizona State University, Tempe, Arizona. May 15-16, 2019.
 154. **Pallmeyer, A. and N. G. Love.** Achieving Resource Efficiency with Resource Recovery: Introduction the NSF INFEWS Project on Urine-Derived Fertilizers. Podium Presentation. 91st Annual Water Environment Federation Technical Exhibition and Conference, New Orleans, LA, October 1-3, 2018.
 155. **Bekele, Z., J. Delgado Vela, C. B. Bott, N. G. Love.** Sensor-mediated Control for Aerobic Granular Sludge Process Treating Mainstream Anaerobic Effluent. Podium presentation. 91st Annual Water Environment Federation Technical Exhibition and Conference, New Orleans, LA, October 1-3, 2018.
 156. **Troutman, S.C., N. G. Love and B. Kerkez.** Evaluating market-based algorithms for system-level TSS control. 13th International Conference on Hydroinformatics. Palermo, Italy, July 1-6, 2018.
 157. **Troutman, S. C., N. G. Love and B. Kerkez.** Market-based real-time control of TSS across large sewer systems. World Environmental & Water Resources Congress, EWRI. Minneapolis, MN, USA. June 3-7, 2018.
 158. **Tarpeh, W., D. S. Aga, N. G. Love, K. Wigginton.** Assessing Risks from Pharmaceuticals and Transformation Products in Urine-Derived Fertilizers. Podium presentation. American Chemical Society Annual Meeting. New Orleans, LA. March 2018.
 159. **Troutman, S.C., N. G. Love and B. Kerkez.** Evaluating market-based algorithms for system-level TSS control. Podium presentation. 13th International Conference on Hydroinformatics. Palermo, Italy, July 1-6, 2018.
 160. **Wagner, B., G. T. Daigger, N. G. Love.** Partial nitrification/anammox membrane aerated biofilm reactor for nitrogen removal from aerobic secondary effluent. Podium presentation. Water Environment Federation Nutrient Removal and Recovery Conference, Raleigh North Carolina, June 18-21, 2018. Presentation with associated conference paper.
 161. **Love, N. G., A. Noe-Hays, K. R. Wigginton, L. Macpherson, D. S. Aga, C. B. Bott, G. T. Daigger, A. P. Davis, J. Eisenberg, A. Gagnon, Z. Getaneh, H. Goetsch, P. Gooding, R. Hardin, S. Hilton, J. Jimenez, G. Keoleian, N. J. Lowe, W. Mui, R. Mullen, K. Nace, A. Pallmeyer, N. Patel, D. Raye-Leonard, E. E. Rodriguez, T. Schreiber, A. Sinanaj, W. Tarpeh, R. Wombacher, B. Zhou.** Advancing Nutrient Recovery through Urine-Derived Fertilizers (UDF) in the United States. Podium presentation. Water

- Environment Federation Nutrient Removal and Recovery Conference, Raleigh North Carolina, June 18-21, 2018. Presentation with associated conference paper.
162. **Troutman, S. C., N. G. Love and B. Kerkez.** Market-based real-time control of TSS across large sewer systems. Podium presentation. World Environmental & Water Resources Congress, EWRI. Minneapolis, MN, USA. June 3-7, 2018.
 163. **Rodriguez, E., W. Tarpeh, H. Clack, N. G. Love, K. Wigginton.** 2018. Degradation of pharmaceuticals in synthetic urine treated with plasma. Poster Presentation. American Chemical Society Meeting, New Orleans, LA, March 18-22, 2018.
 164. **Zerihun A. Bekele, Imre Takacs, Charles B. Bott, and Nancy G. Love.** Harnessing biofilm models to advance nitrogen removal from mainstream anaerobic wastewater treatment processes. Poster presentation. WRRMod2018 conference, Quebec, Canada, March 2018.
 165. **Tarpeh, W., D. S. Aga, N. G. Love, K. Wigginton.** Assessing Risks from Pharmaceuticals and Transformation Products in Urine-Derived Fertilizers. Podium presentation. American Chemical Society Annual Meeting. New Orleans, LA. March 2018.
 166. **Carlson, A., N. G. Love, G. T. Daigger and E. Hart.** Trouble-shooting long-term biofouling in full-scale membrane bioreactor. International Water Association Young Water Professionals Conference, South Africa. December 10-14, 2017.
 167. **Goetsch, H.E., Love, N.G., Imperiale, M.J., Wigginton, K.** Fate of Human BK polyomavirus through urine diverted for fertilizer. 2nd International Resource Recovery Conference: New York City, NY, USA August 5-9, 2017.
 168. **Delgado Vela, J., Dick, Gregory J., Love, N.G.** The Impact of Sulfide on Nitrification: Implications for Nitrification Processes. Fifth International Conference on Nitrification and Related Processes (ICoN5): Early Career and Graduate Student Workshop. Vienna, Austria, July 23-27, 2017.
 169. **Zerihun A. Bekele, Jeseth Delgado Vela, Kelly J. Martin, Charles B. Bott, and Nancy G. Love.** Using sensor-mediated control and modeling to develop an aerobic granular sludge technology for low energy nitrogen. Podium presentation. AEESP Biannual Conference, Ann Arbor, Michigan, June 20-22, 2017.
 170. **Troutman, S. C., N. G. Love, B. Kerkez.** 2017. Controlling a Sewer Network as an Extension of the Wastewater Treatment Plant. Podium presentation. AEESP Biannual Conference, Ann Arbor, Michigan, June 20-22, 2017
 171. **Chia-Chen Wu, Katie Stroh, Shawn P. McElmurry, Terese M. Olson, and Nancy G. Love.** Understanding the transmission of planktonic and sessile bacteria across point-of-use (PoU) filters. Podium presentation. AEESP Biannual Conference, Ann Arbor, Michigan, June 20-22, 2017
 172. **Delgado Vela, J., Dick, Gregory J., Love, N.G.** Managing Healthy Activated Sludge Communities: Understanding the Impact of Sulfide on Nitrogen Removal. Podium presentation. AEESP Biannual Conference, Ann Arbor, Michigan, June 20-22, 2017
 173. **Bekele, Z. A., Jeseth Delgado Vela, Kelly J. Martin, Charles B. Bott, and Nancy G. Love.** Aerobic granular sludge process optimization and modeling for mainstream anaerobically treated wastewater. Poster presented at IWA Biofilm Reactors Conference, Dublin. Ireland, May 2017
 174. **Troutman, S. C., N. G. Love, B. Kerkez.** 2017. Understanding Combined Sewer Flow Dynamics through Data-Driven Modeling. World Environmental & Water Resources Congress, EWRI. Sacramento, CA, USA. May 21-25 2017.
 175. **Zerihun A. Bekele, Jeseth Delgado Vela, Kelly J. Martin, Charles B. Bott, and Nancy G. Love.** Aerobic granular sludge process optimization and modeling for mainstream anaerobically treated wastewater. Poster presented at IWA Biofilm Reactors Conference, Dublin. Ireland, May 2017
 176. **Goetsch, H., M. Imperiale, N. G. Love, K. R. Wigginton.** 2017. Fate of human polyomavirus in urine diverted for fertilizer use. American Chemical Society 253rd National Meeting, San Francisco, CA, April 2017.

177. **Goetsch, H., M. Imperiale, N. G. Love, K. R. Wigginton.** Refining liquid gold: Fate of human polyomavirus in urine diverted for fertilizer use. Oral presentation. Borchardt conference, Ann Arbor, Michigan, February 2017.
178. **Troutman, S., N. G. Love, B. Kerkez.** Use of Real-Time Sensor Data in City-Scale Water Modeling. Poster presentation presented at two different conferences: Borchardt conference, Ann Arbor, Michigan, February 2017; and CUAHSI Biennial Symposium
179. **Zhao, Z., M. P. Runho, C.-C. Wu, A. Zarb, T. M. Olson, S. P. McElmurry, and Nancy G. Love.** 2017 Effect of flushing on microbiological quality of water effluent from point-of-use filters. Poster presentation, Borchardt conference, Ann Arbor, Michigan, February 2017.
180. **Alemayehu, Z., C. B. Bott and N. G. Love.** 2017. Achieving nitrogen removal from mainstream anaerobically treated wastewater using aerobic granular sludge with low aeration rate. Poster presentation, Borchardt conference, Ann Arbor, Michigan, February 2017.
181. **Delgado Vela, J., Z. A. Bekele, A. McFarland, A. Arcelay, K. J. Martin, C. B. Bott, G. J. Dick and N. G. Love.** 2016. The membrane aerated biofilm reactor for nitrogen removal from mainstream anaerobic processes. 89th Annual Water Environment Federation Technical Exhibition and Conference (WEFTEC), New Orleans, LA, Sept 25-28, 2016.
182. **Desta, A. F., N. G. Love, K. R. Wigginton, H. Goetsch and R. Lahr.** 2016. Keynote lecture: Metagenomic analysis of biological contaminants in source-separated urine undergoing sanitization.: A way towards sustainable development in low-income countries. Microbial Ecology and Biofilm Specialists Conference, Copenhagen, Denmark, Sept 3-5, 2016.
183. **Stadler, L. and N. G. Love.** 2016. Associations between microbial community activity, pharmaceutical biotransformation rates, and DO concentration in wastewater treatment. Microbial Ecology and Biofilm Specialists Conference, Copenhagen, Denmark, Sept 3-5, 2016.
184. **Goetsch, H., M. Imperiale, N. G. Love and K. R. Wigginton.** 2016. Refining liquid gold: Fate of human polyomavirus in urine diverted for fertilizer use. Microbial Ecology and Biofilm Specialists Conference, Copenhagen, Denmark, Sept 3-5, 2016.
185. **Wu, C.-C., T. M. Olson and N. G. Love.** 2016. Prevalence of Antibiotic Resistance Genes (ARGs) in Point-of-Use (PoU) Drinking Water Filters. Microbial Ecology and Biofilm Specialists Conference, Copenhagen, Denmark, Sept 3-5, 2016.
186. **Troutman, S., N. G. Love, B. Kerkez.** 2016. Predicting combined sewer flow through use of real-time, city-scale sensor data. Oral presentation, World Environmental and Water Resources Congress, ASCE, West Palm Beach, Florida, May 2016.
187. **Goetsch, H., R. Mullen, R. Lahr, A. Noe-Hays, D. Aga, C. Bott, B. Foxman, J. Jimenez, N. Love, T. Luo, K. Nace, K. Ramadugu, K. Wigginton.** 2015. Fate of pharmaceutical and biological contaminants through the preparation and application of urine derived fertilizers. International Water Association First Resource Recovery Conference. Ghent, Belgium, Aug 30-Sept 2, 2015.
188. **Delgado Vela, J., Martin, K. J., McFarland, A., Beaton, N., Stadler, L.B., Skerlos, S.J., Raskin, L., Bott, C. B., Love, N.G.** Removing nitrogen from effluents of anaerobic wastewater treatment processes: Understanding control and operation through biofilm modeling. 250th American Chemical Society National Meeting and Exhibition. Boston, MA, August 16-20, 2015. (podium).
189. **Delgado Vela, J., K. J. Martin, A. R. McFarland, N. L. Beaton, L. B. Stadler, C. B. Bott, L. Raskin, S. J. Skerlos, N. G. Love, A. Salveson, T. Rauch-Williams.** 2015. Advancing energy neutral wastewater treatment: removing nitrogen and dissolved methane from dilute anaerobic effluents. AEESP Biannual Conference, Yale University, June 14-16 (poster presentation).
190. **Stadler, L. B., J. Delgado Vela and N. G. Love.** 2015. Elucidating the relationship between wastewater treatment plant microbial diversity and pharmaceutical fate. AEESP Biannual Conference, Yale University, June 14-16 (podium presentation), *winner of best student paper award*.
191. **Goetsch, H., R. Lahr, R. Mullen, A. Noe-Hays, D. Aga, C. B. Bott, J. Jimenez, N. G. Love, K. Nace and K. Wigginton.** 2015. Fate or organic contaminants in urine-derived fertilizers. AEESP Biannual Conference, Yale University, June 14-16 (poster presentation).

192. **Lahr, R., H., Goetsch, A. Noe-Hays, D. Aga, C. B. Bott, B. Foxman, J. Jimenez, N. G. Love, T. Luo, R. Mullen, K. Nace, K. Ramadugu and K. Wigginton.** 2015. Microbial communities in urine separated for nutrient recovery. AEESP Biannual Conference, Yale University, June 14-16 (poster presentation).
193. **Stadler, L. B., J. Delgado Vela and N. G. Love.** 2015. Elucidating the relationship between wastewater treatment plant microbial diversity and pharmaceutical fate. American Society for Microbiology, New Orleans, LA, May 30-June 2 (Poster Presentation).
194. **Goetsch, H., R. Lahr, A. Desta, N. G. Love, C. Bott, A. Gagnon, K. Nace, A. Noe-Hays, D. S. Aga, R. Mullen, J. Jimenez, K. Wigginton,** 2015. Fate of pharmaceutical and biological contaminants through the preparation and application of urine-derived fertilizers. 88th Annual Water Environment Federation Technical Exhibition and Conference (WEFTEC), Chicago, IL, Sept 27-30, 2015.
195. **Stadler, L., J. Delgado Vela and N. G. Love.** 2015. Impact of low dissolved oxygen and microbial community on pharmaceutical biotransformations during wastewater treatment. 88th Annual Water Environment Federation Technical Exhibition and Conference (WEFTEC), Chicago, IL, Sept 27-30, 2015.
196. **Delgado-Vela, J., K. J. Martin, N. Beaton, A. McFarland, L. B. Stadler, C. B. Bott, S. J. Skerlos, L. Raskin, N. G. Love.** 2015. Nutrient removal from mainstream anaerobic processes using a membrane aerated biofilm reactor and a granular sludge sequencing batch reactor. 88th Annual Water Environment Federation Technical Exhibition and Conference (WEFTEC), Chicago, IL, Sept 27-30, 2015.
197. **Delgado Vela J., Martin, K. J., Beaton, N., McFarland, A., Stadler, L., Bott, C. B., Raskin, L., Skerlos, S.J., and Love, N.G.** 2014. Nitrogen Removal Downstream of an Anaerobic Membrane Bioreactor for Domestic Wastewater Treatment. IWA Global Challenges: Sustainable Wastewater Treatment and Resource Recovery. Kathmandu, Nepal, October 26-30.
198. **Delgado Vela, J., Martin, K.J., Stadler, L.B., Bott, C. Skerlos, S.J., Raskin, L., Love, N.G.,** 2014. Nutrient Removal from Mainstream Anaerobic Effluents: Linking Biofilm Modeling to Experimental Design. 87th Annual Water Environment Federation Technical Exhibition and Conference (WEFTEC), New Orleans, LA, September 28-October 1. (poster presentation)
199. **Stadler, L. B., Su, L., Aga, D. S., and Love, N. G.** 2014. Understanding the impact of low dissolved oxygen treatment on nitrifier community characteristics and micropollutant fate. 4th International Conference on Occurrence, Fate, Effects, and Analysis of Emerging Contaminants in the Environment. Iowa City, IA, August 19 – 22, 2014.
200. **Love, N. G.** 2014. Achieving resilience and sustainability in the global urban water sector – a role for environmental chemistry. Special Seminar Series: Women in Environmental Chemistry and Engineering, Abstract 312-ENVR, 248th American Chemical Society National Meeting. San Francisco, CA, August 10-14. (podium presentation)
201. **Stadler, L. B., Su, L., Aga, D. S., and Love, N. G.** 2014. Understanding the impact of low dissolved oxygen treatment on nitrifier community characteristics and micropollutant fate. Abstract 415-ENVR, 248th American Chemical Society National Meeting. San Francisco, CA, August 10 – 14, 2014. (podium presentation)
202. **Wu, C.-C., K. J. Martin, A. Perez De La Rosa, G. Ryskamp, N. G. Love and T. M. Olson.** 2014. Effect of disinfection by-products on antibiotic resistance in the bacterial communities of point-of-use (PoU) drinking water filters. Abstract 473-ENVR, 248th American Chemical Society National Meeting. San Francisco, CA, August 10 – 14, 2014. (podium presentation)
203. **Lester, Y., N. G. Love, D. S. Aga, R. Singh and K. G. Linden.** 2014. Demonstrating advanced oxidation/biofiltration to remove emerging contaminants from wastewater: A pilot study. Abstract 130-ENVR, 248th American Chemical Society National Meeting. San Francisco, CA, August 10 – 14, 2014. (podium presentation)
204. **Aga, D. S., K. G. Linden, N. G. Love, R. Singh, Y. Lester, O. S. Keen and S. Baik.** 2014. Identification of degradation products of carbamazepine and iopromide after UV/H₂O₂ advanced oxidation and

- biodegradation. 283-ENVR, 248th American Chemical Society National Meeting. San Francisco, CA, August 10 – 14, 2014. (podium presentation)
205. **Stadler, L. B., Smith, A. L., Jain, A. K., Martin, K. J., Delgado Vela, J., Puente, P., Cao, L., Frenette, S., Bott, C. B., Rauch-Williams, T., Shimada, T., Salveson, A., Love, N. G., Raskin, L., and Skerlos, S. J.** 2014. Integrating Life Cycle Assessment and Experimental Research: Evaluating Anaerobic Membrane Bioreactors in Domestic Wastewater Treatment for Energy Recovery. Borchardt Conference. Ann Arbor, MI, February 25 – 26, 2014. (podium presentation)
 206. **Stadler, L. B., Su, L., Aga, D. S., and Love, N. G.** 2014. Understanding the impact of low dissolved oxygen treatment on nitrifier community characteristics and micropollutant fate. 4th International Conference on Occurrence, Fate, Effects, and Analysis of Emerging Contaminants in the Environment. Iowa City, IA, August 19 – 22. (podium presentation)
 207. **Stadler, L. B., Smith, A. L., Cao, L., Love, N. G., Raskin, L., and Skerlos, S. J.** 2013. Life Cycle Comparison of Emerging and Established Wastewater Energy Recovery Systems. In Mainstream Anaerobic Treatment Systems for Energy Neutral Wastewater Management Workshop at the 86th Annual Water Environment Federation Technical Exhibition and Conference (WEFTEC), Chicago, IL, October 5 – 9.
 208. **Stadler, L.B., A.L. Smith, L. Cao, N.G. Love, L. Raskin, and S.J. Skerlos,** 2013. Energy Recovery from Wastewater: Life Cycle Comparison of Carbon Removal Technologies Upstream of Autotrophic Nitrogen Removal. *WEF/IWA Nutrient Removal and Recovery 2013: Trends in Resource Recovery and Use*, July 28-31, Vancouver, British Columbia, Canada.
 209. **Smith, A.L., T. Shimada, and L. Raskin,** 2013. Syntrophic interactions in full-scale two-phase anaerobic digesters determined by pyrosequencing. *5th International Conference on Microbial Ecology and Water Engineering Conference*, July 7-10, Ann Arbor, Michigan.
 210. **Stadler, L.B., A.L. Smith, L. Cao, N.G. Love, L. Raskin, and S.J. Skerlos,** 2013. Life cycle comparison of emerging and established wastewater energy recovery systems. Poster presentation. *2013 AEESP Education & Research Conference*, July 14-16, Denver, Colorado.
 211. **Delgado-Vela, J., Stadler, L.B., and Love, N. G.** 2013. Elucidating Biotransformation of Pharmaceuticals by Methanotrophic Bacteria. Association of Environmental Engineering & Science Professors 50th Anniversary Conference. Golden, CO, July 14 – 16.
 212. **Moline, C. J., Stadler, L. B., Su, L., Ernstoff, A. S., Dapcic, A. D., Vela, J. D., Aga, D., and Love, N. G.** 2012. Pharmaceutical Fate Under Varying Redox Treatment Environments. Proceedings of the 85th Annual Water Environment Federation Technical Exhibition and Conference (WEFTEC), New Orleans, LA, September 29 - October 3.
 213. **Smith, A. L., Stadler, L. B., Cao, L., Love, N. G., Raskin, L., and Skerlos, S. J.** 2012. Performance and environmental impacts of anaerobic membrane bioreactor for low-strength wastewater treatment, Proceedings of the 85th Annual Water Environment Federation Technical Exhibition and Conference (WEFTEC), New Orleans, LA, September 29-October 3.
 214. **Jimenez, J., C. B. Bott, N. G. Love and J. Bratby.** 2012. Source separation of urine as an alternative solution to nutrient management in wastewater treatment plants: a model-based analysis. Water Environment Federation Technical Exhibition and Conference. New Orleans, LA. Sept 30-Oct 3, 2012. Podium presentation.
 215. **Love, N.G.** 2012. Challenges in predicting micropollutant fate in biological processes. WWTMod2012 workshop on modelling micropollutant fate in biological processes, Mont-Sainte-Anne, Québec, Canada, Feb 26-28, 2012. Podium presentation
 216. **Colby, A., Khunjar, W., Pinto, A., Ghosh, S., Raskin, L., Love, N.** Impact of Copper Stress on Nitrification Performance and the Ammonia Oxidizer Community Structure in Activated Sludge. *2011 AEESP Education & Research Conference*, Tampa, Florida, July 10-12, 2011.

217. **Smith, A.L., H.J. Dorer, N.G. Love, S.J. Skerlos, and L. Raskin.** 2011. Psychrophilic anaerobic membrane bioreactor for domestic wastewater treatment. *2011 AEESP Education & Research Conference*, Tampa, Florida, July 10-12, 2011.
218. **Smith, A.L., N.G. Love, S. Skerlos, and L. Raskin,** 2012. Effects of changes in temperature and hydraulic retention time on performance and environmental impacts of anaerobic membrane bioreactors for domestic wastewater treatment. *Leading-Edge Conference on Water and Wastewater Technologies*, June 3-7, Brisbane, Australia.
219. **Smith, A.L., Z. Li, H. Dorer, N.G. Love, S. Skerlos, and L. Raskin,** 2011. Energy recovery from domestic wastewater using anaerobic membrane bioreactors. *2011 Borchardt Conference*, February 23-24, Ann Arbor, Michigan.
220. **Guest, J. S., N. G. Love, S. Snowling, C. B. Bott, G. T. Daigger and S. J. Skerlos.** Quantitative sustainable design of wastewater treatment plants. *Water Environment Federation Technical Exhibition and Conference*. Los Angeles, CA. October 15-19, 2011. Podium presentation.
221. **Keen, O., S. Baik, K. Linden, D. Aga and N. G. Love.** 2011. Degradation of carbamazepine during UV/H₂O₂ treatment of wastewater. *Water Environment Federation Technical Exhibition and Conference*. Los Angeles, CA. October 15-19, 2011. Podium presentation.
222. **Smith, A., N. G. Love, S. J. Skerlos, and L. Raskin.** Role of membrane biofilm in psychrophilic anaerobic membrane bioreactor for domestic wastewater treatment. *Water Environment Federation Technical Exhibition and Conference*. Los Angeles, CA. October 15-19, 2011. Podium presentation.
223. **Colby, A., Khunjar, W., Pinto, A., Ghosh, S., Raskin, L., Love, N.** Impact of Copper Stress on Ammonia Oxidizer Activity and Community Structure in Nitrifying Activated Sludge. *Water Environment Federation Technical Exhibition and Conference*. Los Angeles, CA. October 15-19, 2011. Podium presentation.
224. **Smith, A.L., N.G. Love, S. Skerlos, and L. Raskin,** 2011. Analysis of microbial communities in an anaerobic membrane bioreactor for domestic wastewater treatment at psychrophilic conditions. *2011 Biogas Microbiology Conference*, September 14-16, Leipzig, Germany.
225. **Colby, A., Khunjar, W., Pinto, A., Ghosh, S., Raskin, L., Love, N.** 2011. Effect of Copper Stress on Ammonia Oxidizer Community Structure and Nitrification Performance in a Nitrifying Activated Sludge Wastewater Treatment Process. *2nd International Conference on Nitrification*. Nijmegen, the Netherlands. July 1-7.
226. **Guest, J.S., S.J. Skerlos, N.G. Love.** 2011. Quantitative sustainable design of wastewater treatment plants. *Engineering Sustainability 2011*, Pittsburgh, PA, March 10-12, 2011, Podium presentation.
227. **Cook, S. M., B.J. VanDuinen, S.J. Skerlos, N.G. Love.** Life cycle comparison of environmental impacts from alternative pharmaceutical disposal methods. *Engineering Sustainability 2011 Conference*, Pittsburgh, PA, April 11, 2011
228. **Smith, A.L., N.G. Love, S.J. Skerlos, and L. Raskin.** 2010. Anaerobic membrane bioreactors for sustainable domestic wastewater treatment at psychrophilic temperatures. *Proceedings of the 12th World Congress on Anaerobic Digestion*, Guadalajara, Mexico, November 1-4, 2010
229. **Smith, A.L., H.J. Dorer, N.G. Love, S.J. Skerlos, and L. Raskin.** 2011. Role of membrane biofilm in psychrophilic anaerobic membrane bioreactor for domestic wastewater treatment. *Proceedings of the 84th Annual Water Environment Federation Technical Exhibition and Conference*, Los Angeles, California, October 15-19, 2011.
230. **Pinto, A.J. and N.G. Love.** Impact of chemical perturbation on trophic interactions and its implications for ecosystem function in an engineered environment. *13th International Symposium on Microbial Ecology 2010*, Seattle, Washington. August 22-27, 2010
231. **Love, N.G., W. O. Khunjar, S. Mackintosh, S. Baik, and D. Aga.** The Relative Roles of Ammonia Oxidizing and Heterotrophic Activated Sludge Bacteria in Biotransforming 17 α -Ethinylestradiol and Trimethoprim. Podium presentation, *AEESP Special Session. 83rd Water Environment Federation Technical Exposition and Conference 2010*, New Orleans, LA, October 3-6, 2010.

232. **Smith, A.L., N.G. Love, S. Skerlos, and L. Raskin, 2010.** Anaerobic membrane bioreactors for sustainable domestic wastewater treatment at psychrophilic temperatures. *12th World Congress on Anaerobic Digestion*, October 31 - November 4, Guadalajara, Mexico. International Water Association.
233. **N. G. Love, W. O. Khunjar, J. Skotnicka-Pitak, S. Mackintosh, S. Baik, D. S. Aga, T. Yi, and W. F. Harper Jr. 2010.** Elucidating the role of ammonia oxidizing bacteria versus heterotrophic bacteria during the biotransformation of 17 α -ethinylestradiol and trimethoprim. Podium presentation. International Water Association World Water Congress and Exposition, Montreal, Quebec, Canada, Sept 20-24, 2010.
234. **W.O. Khunjar, J. Skotnicka-Pitak, S. Mackintosh, S. Baik, N. G. Love, D.S. Aga, W.F. Harper Jr. 2010.** Elucidating factors that influence the biotransformation of 17 α -ethinylestradiol and trimethoprim. Poster presentation. International Water Association Leading Edge Technology Conference, Phoenix, AZ, June 1-4, 2010.
235. **Guest, J. S., S. J. Skerlos and N. G. Love. 2010.** An optimization methodology for elucidating locality-specific sustainability trade-offs in wastewater treatment plant process selection. Poster presentation. International Water Association Leading Edge Technology Conference, Phoenix, AZ, June 1-4, 2010.
236. **Pinto, A.J., Hardin, S.C., Love, N.G., Fairey, A., Earle, J., Washington, P., Iler, P., Doane-Weideman, T., and Lagrange, R.** Remedial Intervention Strategies for Wastewater Treatment Plant Exposed to Heavy Metal Stress: Laboratory and Pilot Scale Evaluations. Podium presentation. *Proceedings of the 82nd Water Environment Federation Technical Exposition and Conference 2009*, Orlando, Florida, October 10-14, 2009.
237. **Khunjar, W. O., Skotnicka-Pitak, J., Celiz, M.D., Baik, S., Love, N.G., Aga, D.S., Harper Jr., W.F.** The Impact of Physiological State and Residual Organic Carbon on the Biotransformation of 17 α -Ethinylestradiol and Trimethoprim by Heterotrophic Bacteria. Podium Presentation. *82nd Annual Water Environment Federation Technical Exposition and Conference*, Orlando, Florida, October 10-14, 2009.
238. **Guest, J. S.; Cook, S. M.; Skerlos, S. J.; Love, N. G. 2009.** A methodology to assess the environmental impacts of upgrading wastewater infrastructure: A case study to evaluate energy recovery from black water. Podium presentation. *Proceedings of the 82nd Annual Water Environment Federation Technical Exhibition and Conference (WEFTEC)*, Orlando, Florida, October 10-14, 2009.
239. **Thomas, W.A., Bott, C.B., Regmi, P., Schafran, G., Pinto, A., Love, N.G., McQuarrie, J., Rutherford, B., Baulmer, R., Waltrip, D.** Evaluation of Nitrification Kinetics for a 2.0 MGD IFAS demonstration project. Podium presentation. *Proceedings of the 82nd Water Environment Federation Technical Exposition and Conference 2009*, Orlando, Florida, October 10-14, 2009.
240. **Cook, S. M., J. S. Guest, S. J. Skerlos, N. G. Love. 2009.** Environmental characteristics of different energy recovery systems from the management of sewage sludge and food waste. Podium presentation, *IWA Sustainable Management & Technologies of Sludges Conference*, Harbin, China, August 8-11, 2009.
241. **Pinto, A.J., N. G. Love, A. Fairey, J. Earle, P. Washington, P. Iler, T. Doane-Weideman, and R. Lagrange. 2009.** Integration of online sensors with corrective action strategies to detect, monitor, and mitigate toxic shock events at nutrient removal wastewater treatment plants. *Water Environment Federation: Nutrient Removal Conference*. Washington, DC. June 28-July 1, 2009.
242. **Pinto, A.J. and N. G. Love.** Post-stress recovery of a complex ammonia oxidizing bacterial community following heavy metal cadmium stress. Short podium presentation and poster presentation. *International Conference on Nitrification 1*. Louisville, KY, July 5-9, 2009.
243. **Guest, J. S.; Skerlos, S. J.; Daigger, G. T.; Corbett, J. R. E.; Love, N. G. 2009.** The use of qualitative system dynamics to identify sustainability characteristics of decentralised wastewater management alternatives. *Proceedings of 6th IWA Leading Edge Conference on Water and Wastewater Technologies*, Singapore, June 22-25, 2009. *Invited for consideration in Water Science and Technology*.
244. **Pinto, A.J., S. C. Hardin, and N. G. Love. 2009.** Cadmium-induced short-term structural and functional changes in ammonia oxidizing community in conventional laboratory and pilot scale activated sludge

- systems. Podium presentation. *Proceedings of the ASPD5 (Activated Sludge Population Dynamics) Specialised Conference: Microbial Population Dynamics in Biological Wastewater Treatment*. International Water Association. Aalborg, Denmark, May 24-27, 2009.
245. Gilmore, K. R., B. F. Smets, A. Terada, S. Lackner, J. L. Garland, N. G. Love. 2009. Microbial community analysis in an autotrophic hollow-fiber membrane-aerated biofilm reactor (HFMBR) treating a high-strength nitrogen wastewater. Podium presentation. *Proceedings of the ASPD5 (Activated Sludge Population Dynamics) Specialised Conference: Microbial Population Dynamics in Biological Wastewater Treatment*. International Water Association. Aalborg, Denmark, May 24-27, 2009, pp 146-148.
 246. Khunjar, W. O., Skotnicka-Pitak, J., Celiz, M.D., Mackintosh, S., Love, N.G., Aga, D.S., Harper Jr., W.F. Elucidating the Role of Ammonia Oxidizing Bacteria versus Heterotrophic Bacteria in the biotransformation of 17 α -ethinylestradiol. Poster presentation. *Proceedings of the Activated Sludge Population Dynamics 5 (ASPD5): Microbial Population Dynamics in Biological Wastewater Treatment*. International Water Association. Aalborg, Denmark, May 24-27, 2009.
 247. Loh, K. J., J. S. Guest, G. Ho, J. P. Lynch, and N. G. Love. 2009. Layer-by-layer carbon nanotube bio-templates for in situ monitoring of the metabolic activity of nitrifying bacteria. *SPIE Smart Structures and Materials*, San Diego, CA.
 248. Ghosh, S. and N. G. Love. MexAB-OprM efflux pump mediated changes in antibiotic susceptibilities of *Pseudomonas aeruginosa*. ASM General Meeting, Philadelphia. May 19, 2009.
 249. Love, N. G., D. Bronk, E. Canuel, M. Poteat, Q. Roberts, K. C. Filippino, P. Hatcher, R. Mesfioui, M. M. Mulholland, and G. Ho. The importance of effluent organic nitrogen fate and its contribution to N management in N-limited regions. Podium presentation. *Association of Environmental Engineering and Science Professors Conference*, July 26-29, 2009, Iowa City, IA.
 250. Khunjar, W. O., Skotnicka-Pitak, J., Celiz, M.D., Mackintosh, S., Love, N.G., Aga, D.S., Harper Jr., W.F. 2009. Elucidating the role of ammonia oxidizing bacteria versus heterotrophic bacteria in the biotransformation of 17 α -ethinylestradiol. Poster Presentation. *Association of Environmental Engineering and Science Professors Conference*, July 26-29, 2009, Iowa City, IA.
 251. Pinto, A.J., J. S. Guest, R. Roots, N. G. Love, and S. Skerlos. 2009. A project-based active learning framework to introduce freshman engineering students to sustainable waste management and waste-to-energy technologies. Podium presentation. *Association of Environmental Engineering and Science Professors 2009 Conference*. Iowa City, IA, July 26-29, 2009.
 252. Pinto, A.J. and N. G. Love. 2009. Structural and Functional Response of the Ammonia Oxidizing Bacterial Community to Acute Cadmium Stress in Laboratory and Pilot Scale Activated Sludge Systems. Poster presentation. *Association of Environmental Engineering and Science Professors 2009 Conference*. Iowa City, IA, July 26-29, 2009.
 253. Khunjar, W. O., Skotnicka-Pitak, J., Celiz, M.D., Mackintosh, S., Love, N.G., Aga, D.S., Harper Jr., W.F. 2009. Elucidating the Role of Ammonia Oxidizing Bacteria versus Heterotrophic Bacteria in the biotransformation of 17 α -ethinylestradiol. Poster presentation. *Micropol and Ecohazard 2009, 6th IWA/GRA Specialized Conference on Assessment and Control of Micropollutants/Hazardous Substances in Water* June 2009, San Francisco, CA.
 254. Cook, S. M., J. S. Guest, M. G. Christianson, N. G. Love, S. J. Skerlos. 2009. Energy Recovery from Wastewater: Evaluation of Resource Management Alternatives for Appropriate and Environmentally Sustainable Energy Production. Podium presentation, *Engineering Sustainability 2009 Conference*, Pittsburgh, PA, April 21, 2009.
 255. H.A. Tucker, K.F. Knowlton, and N.G. Love. 2009. Fecal and urinary estrogens in dairy heifers during the estrous cycle. *J. Dairy Sci.* 92 (Suppl. 1).
 256. Hardin, S., A. Pinto, N. G. Love, and A. Shaw. 2008. Impact of Contaminant-Specific Corrective Action Strategies on Wastewater Treatment Plant Performance and Recovery. Poster presentation. *Water*

- Environment Federation 81st Annual Conference and Exposition*, Chicago, IL, October 19-22, 2008. 1st Place - Best Poster Award.
257. **Khunjar, W. O., Skotnicka-Pitak, J., Yi, T., Love, N.G., Aga, D.S., Harper Jr., W.F.** 2008. Biotransformation of pharmaceutical, personal care products during nitrification – the role of nitrifiers vs. heterotrophs. Podium presentation. *ASCE World Environmental & Water Resources Congress 2008*. Honolulu, HI.
 258. **Aga, D., N. G. Love, W. Harper, W. O. Khunjar, J. Slotnicka-Pitak, T. Yi.** 2008. Biotransformation of pharmaceuticals by nitrifying and heterotrophic cultures: Investigation of degradation kinetics and metabolite identification. Keynote Address - International Water Association Leading Edge Technology Conference, Zurich, Switzerland, June 1-4, 2008.
 259. **Shaw, A., deBarbadillo, C., Pinto, A. J., Guest, J. S., Love, N. G., Fairey, A. W., Iler, P. L., Earle, J. K., Shellenbarger, D., and Barker D.** 2008. Dynamic whole plant modeling to investigate mitigation strategies for toxic shocks. 1st *IWA/WEF Wastewater Treatment Modeling Seminar*. Mont-Sainte-Anne, Quebec, Canada. June-1-3, 2008.
 260. **Love, N. G. and Skerlos, S. J.** 2008. Global Sustainable Water Systems – Acknowledging Wastewater as a Resource. *Graham Environmental Sustainability Institute Water, Health + Environment Workshop*, University of Michigan, March 26-27, 2008.
 261. **Musabyimana, M., N. G. Love, C. B. Bott and S. Murthy.** 2008. Evaluation of nitrite inhibition and toxicity in the deammonification process. Podium presentation alternate. *Proceedings of the Water Environment Federation 81st Annual Conference and Exposition*, Chicago, IL, October 19-22, 2008.
 262. **O'Shaughnessy, M. M. Musabyimana, J. Sizemore, S. Murthy, B. Wett, I. Takacs, D. Houweling, P. Sanjines, N. Love, K. Pallansch,** 2008. Operations and process control of the deammonification process as a sidestream option for nutrient removal. Podium presentation. *Proceedings of the Water Environment Federation 81st Annual Conference and Exposition*, Chicago, IL, October 19-22, 2008.
 263. **Khunjar, W. O., J. Skotnicka-Pitak, N. G. Love, D. Aga, W. F. Harper Jr.** 2008. Elucidating the role of nitrifiers versus heterotrophic bacteria in the biotransformation of 17 α -ethinylestradiol during wastewater treatment. Podium presentation. *Proceedings of the Water Environment Federation 81st Annual Conference and Exposition*, Chicago, IL, October 19-22, 2008.
 264. **Gilmore, K. R., N. G. Love, B. F. Smets, A. Terada, J. Garland.** 2008. Nitrifier and anammox population dynamics in an autotrophic nitrogen removal membrane biofilm reactor. Podium presentation. *Proceedings of the Water Environment Federation 81st Annual Conference and Exposition*, Chicago, IL, October 19-22, 2008.
 265. **Pinto, A., S. Hardin and N. G. Love.** 2008. Structural and functional responses of the ammonia oxidizing community in activated sludge exposed to cadmium stress. Podium presentation. *Proceedings of the Water Environment Federation 81st Annual Conference and Exposition*, Chicago, IL, October 19-22, 2008.
 266. **Gilmore, K. R., B. F. Smets, J. L. Garland, A. Terada, and N. G. Love.** 2008. Controlling gaseous nitrogen oxide emissions and nitrogen removal performance in hollow fiber membrane aerated biofilm reactors. *Proceedings of the WEF Membrane Technology 2008 Conference*, Atlanta, Georgia, January 27-30, 2008.
 267. **DeBusk, J. A., J. Arogo Ogejo, N. G. Love, K. F. Knowlton.** 2007. Adjusting nitrogen to phosphorus ratios in liquid dairy manure through nitrification and chemical phosphorus removal to match crop fertilizer requirements. Podium presentation. *Proceedings of the American Society of Agricultural and Biological Engineers (ASABE)*, Paper No. 074048, June 17-20, 2007.
 268. **Guest, J. S., A. J. Pinto, N. G. Love and A. Shaw.** 2007. Corrective action strategies for enhanced biological phosphorus removal WWTPs during short-term and prolonged toxic shock events. Podium presentation. *Proceedings of the Water Environment Federation 80th Annual Conference and Exposition*, San Diego, CA, Oct 14-17, 2007.

269. **Khunjar, W. O., C. Klein, T. Yi, N. G. Love, D. Aga, and W. F. Harper Jr.** 2007. Cometabolism of pharmaceutical, personal care products (PPCPs) by the ammonia oxidizing bacterium *Nitrosomonas europaea*. Podium presentation. *Proceedings of the Water Environment Federation 80th Annual Conference and Exposition*, San Diego, CA, Oct 14-17, 2007.
270. **Ikuma, K., I. D. S. Henriques, B. J. Love and N. G. Love.** 2007. Immobilization of *Pseudomonas aeruginosa* in alginate microbeads for use in a biosensor designed to detect oxidative toxins. Podium presentation. *Proceedings of the Water Environment Federation 80th Annual Conference and Exposition*, San Diego, CA, Oct 14-17, 2007.
271. **Gilmore, K. R., N. G. Love and B. F. Smets.** 2007. Oxygen mass transfer in a flow-through hollow fiber membrane aeration reactor. Poster presentation. *Proceedings of the Water Environment Federation 80th Annual Conference and Exposition*, San Diego, CA, Oct 14-17, 2007.
272. **Beck, J. L., K. R. Gilmore, N. G. Love, K. F. Knowlton and J. Arogo Ogejo.** 2007. Nitrogen removal from dairy waste using deammonification fueled by fermented dairy manure. Podium presentation. *Proceedings of the Water Environment Federation 80th Annual Conference and Exposition*, San Diego, CA, Oct 14-17, 2007.
273. **Pinto, A. J., Guest, J.S., Love, N.G., and Shaw, A.** 2007. Elucidating the importance of contaminant specific corrective action strategies for wastewater treatment plants during toxic shocks. *Proceedings of the Water Environment Federation 80th Annual Conference and Exposition (WEFTEC)*, San Diego, CA, October 14-17, 2007.
274. **Khunjar, W. O., Klein, C., Skotnicka-Pitak, J., Yi, T., Love, N. G., Aga, D. Harper, W. F. Jr.** 2007. Biotransformation of pharmaceuticals and personal care products (PPCPs) during nitrification: the role of ammonia oxidizing bacteria versus heterotrophic bacteria. WEF Specialty Conference - Compounds of Emerging Concern: What's on the Horizon? Providence, Rhode Island, July 29-30, 2007, Podium presentation.
275. **Fang, Y., Zhao, Z., Love, N. G., Knowlton, K. F., Novak, J. T.** 2007. Detecting endocrine disrupting compounds in various waste matrices using a bioassay. WEF Specialty Conference - Compounds of Emerging Concern: What's on the Horizon? Providence, Rhode Island, July 29-30, 2007, Podium presentation.
276. **Ikuma, K. Fraga Muller, J., Stevens, A. M., Hagedorn III, C., Love, N. G.** 2007. Evaluating the extent of pollution-induced antibiotic resistance in environmental bacterial strains. *American Water Resources Association Summer Specialty Conference – Emerging Contaminants of Concern in the Environment: Issues, Investigations and Solutions*. Vail, Colorado, June 25-27, 2007, Podium presentation.
277. **Khunjar, W. O., Klein, C., Yi, T., Henriques, I. D. S., Love, N. G., Aga, D. S., Harper Jr., W. F.** 2007. The relative roles of ammonia oxidizing bacteria versus heterotrophic bacteria in biotransforming 17 α -ethinylestradiol under low growth rate conditions. *American Water Resources Association Summer Specialty Conference – Emerging Contaminants of Concern in the Environment: Issues, Investigations and Solutions*. Vail, Colorado, June 25-27, 2007, Podium presentation.
278. **Zhao, Z., K. F. Knowlton, N. G. Love and Y. Fang.** 2007. Advanced treatment to reduce the estrogen content of dairy manure. *American Society of Civil Engineers World Environmental & Water Resources Congress*, Tampa Bay, FL., May 15-19, 2007. Podium presentation.
279. **Zhao, Z., Knowlton, K.F., Love, N. G., and Fang, Y.** 2007. Dairy manure estrogens with advanced treatments. *Journal of Dairy Science*, **90**:332, Supplement 1.
280. **Pinto, A. J., Love, N. G.** 2007. Elucidating the importance of contaminant specific corrective action strategies for wastewater treatment plants during toxic shocks. Poster presentation. *Water Environment Federation 80th Annual Conference and Exposition*, San Diego, CA, Oct 14-17, 2007.
281. **Beck, J. L., N. G. Love, K. F. Knowlton and J. Arogo Ogejo.** 2007. Nitrogen removal from dairy waste using deammonification fueled by fermented dairy manure. Poster presentation. *Proceedings of the American Society of Agricultural and Biological Engineers (ASABE)*, June 17-20, 2007.

282. **Khunjar, W. O., Baik, S., Celiz, D., Yi, T., Henriques, I.D.S., Love, N. G., Aga, D. S., Harper Jr., W. F.** 2007. Evaluation of the fate of environmentally relevant micropollutants. Podium presentation. *American Society of Civil Engineers World Environmental & Water Resources Congress*, Tampa Bay, FL., May 15-19, 2007.
283. **Aga, D. S., Harper Jr., W. F., Love, N. G. Khunjar, W. O., Klein, C., Celiz, D. M., Baik, S., Yi, T.** 2007. Investigating the connection between nitrification and the removal of pharmaceuticals using engineered bioreactors. Micropol and Ecohazard 2007, Frankfurt, Germany. Podium Presentation.
284. **Pinto, A. J., Guest, J. S., Love, N. G., Shaw, A., Fairey, A. W., Iler, P. L., Earle, J. K., Shellenbarger, D., Barker, D.** 2007. Process control at nutrient removal wastewater treatment plants during toxic shock events. State of the Art Nutrient Removal Design, Water Environment Federation and International Water Association, March 3-7, 2007, Baltimore, Maryland.
285. **Klein, C., Aga, D. S., Love, N. G., Khunjar, W. O., and Harper Jr., W. F.** 2007. Characterizing the degradation products of 17 alpha-ethinylestradiol in activated sludge systems by LC/MS. 58th Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy. Chicago, IL, Feb 25-March 2, 2007. Podium presentation.
286. **Harper Jr. W.F., Love, N.G., Aga, D.S., Yi, T., Khunjar, W.O., Klein, C., O'Connor, S.** Evaluating the link between nitrification and the removal of 17 α -ethinylestradiol. Poster presentation. *Nutrient Removal 2007: The State of the Art. Water Environment Federation Specialty Conference*, Baltimore, MD.
287. **Ikuma, K., Rzigalinski, B. A. and Love, N. G.** 2007. Predicting the public health impact of oxidative toxins using a bacterial glutathione-gated potassium efflux stress response biosensor. 233rd American Chemical Society National Meeting, Chicago, Illinois, March 25-29, 2007.
288. **Chandran, K. and Love, N. G.** 2006. Cd(II) mediated inhibition of *Nitrosomonas europaea* is linked to oxidative stress and is impacted by physiological state and growth mode. *Proceedings of the Water Environment Federation 79th Annual Conference and Exposition*, Dallas, TX Oct 22-25, 2006. (Number 1 Abstract out of 120+ submissions for Research Symposium)
289. **Kelly, R. T. Jr. and Love, N. G.** 2006. The role of glutathione mediated stress response mechanisms in nitrifying bacteria. *Proceedings of the Water Environment Federation 79th Annual Conference and Exposition*, Dallas, TX Oct 22-25, 2006.
290. **Capuno, R. E., Love, N. G., and Smets, B. F.** 2006. Mathematical modeling of start-up scenarios for nitrogen removal via a nitrification:anaerobic ammonia oxidation-coupled biofilm in a hollow fiber membrane bioreactor. *International Water Association Biofilm Systems VI*, Amsterdam, The Netherlands, September 24-27, 2006.
291. **Gilmore, K. R., R. E. Capuno, Jr., N. G. Love, and B. F. Smets.** 2006. Anaerobic stabilization of early planetary base ersatz wastewater formulation. Society of Automotive Engineers (SAE) Technical Paper Series 2006-01-2255. 36th International Conference on Environmental Systems, SAE, Norfolk, VA.
292. **Zaklikowski, A., Love, N. G., Vikesland, P. and Chandran, K.** 2006. The effect of breakpoint chlorination practices on the activity, viability and recovery of nitrifying bacteria in chloraminated water. *American Water Works Association Annual Meeting, Universities Forum*. June 12, 2006.
293. **Rushing, J. C., Vikesland, P., Love, N. G., Mutuc, M., Chan, K. M., Casselberry, R. and Cichy, P.** 2006. Evaluating in situ chemical and biological treatment approaches for two chlorinated aliphatic ethers: BCEE and BCEM. The Fifth International Conference on Remediation of Chlorinated and Recalcitrant Compounds. Battelle, May 22-25, 2006, Monterey, California.
294. **Xu, Y., Lei, G., Linares, K. A., Fleming, D. L., Meehan, K., Lu, G. Q., Love, N. G. and Love, B. J.** 2005. Maximizing dye fluorescence via incorporation of metallic nanoparticles in solution. *SPIE (The International Society for Optical Engineering)*, 5591:175-183.
295. **Henriques, I. D. S., Aga, D., Mendes, P. and Love, N. G.** 2005. Metabolic footprinting: A new approach to identify changes in activated sludge physiology upon exposure to toxic compounds.

- Proceedings of the Water Environment Federation 78th Annual Conference and Exposition*, Washington DC, Oct 31-Nov 2, 2005, 12 pages.
296. Muftugil, M., Knowlton, K. F., and Love, N. G. 2005. Using enhanced biological phosphorus removal to minimize nutrient delivery from dairy farms to receiving waters. Poster presentation at Water Environment Federation 78th Annual Conference and Exposition, Washington DC, Oct 31-Nov 2, 2005.
 297. Henriques, I. D. S., Aga, D., Mendes, P. and Love, N. G. 2005. Metabolic footprinting: A new approach to identify changes in activated sludge physiology upon exposure to toxic compounds. *Proceedings of the 4th International Water Association Activated Sludge Population Dynamics Specialist Conference*, Gold Coast, Australia, 12 pages.
 298. Henriques, I. D. S., Aga, D., Mendes, P., and Love, N. G. 2005. Metabolic Footprinting: A New Approach to identify Changes in Activated Sludge Physiology upon Exposure to Toxic Compounds. Association of Environmental Engineering and Science Professors Conference, July 24-26, Clarkson University, Potsdam, New York.
 299. Fraga Muller, J., Craig, J., Stevens, A. M., and Love, N. G. 2005. Using Whole Genome Arrays to Investigate Functional Response to Contaminant Stress: the Response of *Pseudomonas aeruginosa* to Pentachlorophenol. Association of Environmental Engineering and Science Professors Conference, July 24-26, Clarkson University, Potsdam, New York.
 300. Fraga Muller, J., Craig, J., Stevens, A. M., and Love, N. G. 2005. The Stress Response of *Pseudomonas aeruginosa* to Pentachlorophenol. *Abstracts of the 105th General Meeting of the American Society for Microbiology*, Atlanta Georgia.
 301. Kelly II, R. T. and Love, N. G. 2004. Investigating the role of oxidative stress mechanisms in chemically-inhibited nitrifiers. *Proceedings of the Water Environment Federation 77th Annual Conference and Exposition*, New Orleans, LA, October 2004, 22 pages.
 302. Kelly II, R. T. and Love, N. G. 2004. A critical comparison of methods used to determine nitrification inhibition. *Proceedings of the Water Environment Federation 77th Annual Conference and Exposition*, New Orleans, LA, October 2004, 15 pages.
 303. Henriques, I. D. S., Stevens, A. M. and Love, N. G. 2004. Is biomass concentration a factor determining the sensitivity of activated sludge to toxic shocks? *Proceedings of the Water Environment Federation 77th Annual Conference and Exposition*, New Orleans, LA, October 2004, 22 pages.
 304. Linares, K., Fleming, D., Xu, Y., Love, N. G., Love, B. J. and Meehan, K. 2004. Evaluating strategies for integrating bacterial cells into a biosensor designed to detect electrophilic toxins. *Proceedings of the Water Environment Federation 77th Annual Conference and Exposition*, New Orleans, LA, October 2004, 17 pages.
 305. Henriques, I. D. S., Kelly II, R. T. and Love, N. G. 2004. Deflocculation Effects Due to Chemical Perturbations in Sequencing Batch Reactors. 3rd International Symposium on Sequencing Batch Reactors, International Water Association, Brisbane, Australia.
 306. Leung, S.M., Little, J. C., Holst, T., and Love, N. G. 2003. Oxygen transfer and consumption in a biological aerated filter. *Proceedings of the Water Environment Federation 76th Annual Conference and Exposition*, Los Angeles, CA October 2003.
 307. Dauphinais, J. L. and Love, N. G. 2003. Determination of toxic inhibition potential from industrial dischargers to a POTW using a respirometric assay. *Proceedings of the Water Environment Federation 76th Annual Conference and Exposition*, Los Angeles, CA October 2003.
 308. Yanosek, K.A., Wolfe, M. L. and Love, N. G. 2003. Assessment of enhanced biological phosphorus removal for dairy manure treatment. In the *Animal, Agricultural and Food Processing Wastes*, *Proceedings of the Ninth International Symposium*, 11-14 October 2003 (Raleigh, North Carolina, USA), ed. Robert Burns. ASAE Pub #701P1203. pp. 212-220.
 309. Henriques, I. D. S. and Love, N. G. 2003. The role of floc morphology and composition on susceptibility of biomass to shock loads of chemical toxins. Poster presentation at Water Environment

- Federation 76th Annual Conference and Exposition, Los Angeles, CA October 2003. 1st Place - Best Poster Award.
310. **Holbrook, R.D., Novak, J. T. and Love, N. G.** 2002. The role of particulate and colloidal material in the fate and transport of endocrine disrupting compounds. *Proceedings of the Water Environment Federation 75th Annual Conference and Exposition*, Chicago, IL October 2002.
 311. **Leung, S., Holst, T., Love, N. G. and Little, J. C.** 2002. A fundamental investigation of oxygen utilization in a biological aerated filter. *Proceedings of the Water Environment Federation 75th Annual Conference and Exposition*, Chicago, IL October 2002.
 312. **Kelly, R. T. II, Henriques, I. D. S., Dauphinais, J. and Love, N. G.** 2002. Evaluation of source-effect relationships for activated sludge response to shock loads of disruptive chemical toxins. *Proceedings of the Water Environment Federation 75th Annual Conference and Exposition*, Chicago, IL October 2002.
 313. **Wimmer, R. F. and Love, N. G.** 2002. Activated sludge deflocculation in response to chlorine addition: the potassium connection. *Proceedings of the Water Environment Federation 75th Annual Conference and Exposition*, Chicago, IL October 2002.
 314. **Love, N. G., Wimmer, R. F., Barker, S., Travis, J., Love, B. J., and Locascio, L.** 2002. Developing sensing technologies to enable proactive operations in biological wastewater treatment. Association of Environmental Engineering and Science Professors/American Academy of Environmental Engineers Conference, August 10-14, University of Toronto, Toronto, Canada, p. 24.
 315. **Love, N. G.** 2002. Invited keynote speaker. Status and Potential for Biosensors in Wastewater Treatment. European Union COST meeting, *Biosensors in Wastewater*, Milan Italy.
 316. **Holbrook, R. D., Novak, J. T. and Love, N. G.** 2001. Process considerations for the reduction of endocrine disruption potential in wastewater effluents. *Proceedings of the Water Environment Federation 74th Annual Conference and Exposition*, Atlanta, GA, October 2001.
 317. **Wimmer, R. F., Waddell, E., Barker, S. L. R., Suggs, A., Locascio, L., Love, B. J. and Love, N. G.** 2001. Development of an upset early warning device to predict deflocculation events. *Proceedings of the Water Environment Federation 74th Annual Conference and Exposition*, Atlanta, GA, October 2001.
 318. **Phipps, S. D. and Love, N. G.** 2001. Quantifying observed biomass yield in a biological aerated filter. *Proceedings of the Water Environment Federation 74th Annual Conference and Exposition*, Atlanta, GA, October 2001.
 319. **Love, N. G. and Bott, C. B.** 2001. Evaluating the Role of Microbial Stress Response Mechanisms in Causing Biological Treatment System Upset. *Microorganisms in Activated Sludge and Biofilm Processes*, Rome, Italy [see associated *Water Science and Technology* publication above].
 320. **Love, N. G., C. B. Bott, K. C. Terlesky.** 2001. Proteomic approach to assessing environmental stress in complex microbial communities." Oral presentation at the 221st American Chemical Society National Meeting, San Diego, CA. April 2, 2001.
 321. **Bott, C. B., Abrajano, J. and Love, N. G.** 2000. A physiological mechanism for activated sludge deflocculation caused by shock loads of toxic chemicals. *Proceedings of the Water Environment Federation 73rd Annual Conference and Exposition*, Anaheim, CA, October 14-18, 2000.
 322. **Bott, C. B., Duncan, A. J. and Love, N. G.** 2000. Stress Protein Expression in Domestic Activated Sludge in Response to Xenobiotic Shock Loading. First World Congress of the International Water Association, Paris France [see associated *Water Science and Technology* publication above].
 323. **Ma, G. and Love, N. G.** 2000. Creating Anoxic and Microaerobic Conditions in Sequencing Batch Reactors Treating Volatile BTX Compounds. 2nd International Symposium on Sequencing Batch Reactor Technologies, Narbonne, France [see associated *Water Science and Technology* publication above].
 324. **Fouratt, M., Smithers, C., Love, N. G., and Stevens, A. M.** 2000. The characterization of nitrifying bioaugmentation cultures. Poster presentation. *Abstracts of the 100th General Meeting of the American Society for Microbiology*, Los Angeles, CA. p. 491.

325. **Fouratt, M., Smithers, C., Love, N. G., and Stevens, A. M.** 2000. The characterization of nitrifying bioaugmentation cultures. Poster presentation. *Abstracts of the 100th General Meeting of the American Society for Microbiology*, Los Angeles, CA. p. 491.
326. **Delahaye, A., Gilmore, K. R., Husovitz, K. J., Love, N. G., Holst, T., Novak, J. T.** 1999. Distribution and characteristics of biomass in pilot-scale upflow biological aerated filters treating domestic wastewater. Podium presentation. *Proceedings of the International Association on Water Quality Conference on Biofilm Systems*, New York, NY, October 17-21.
327. **Love, N. G., Gilmore, K. G., Husovitz, K. J., Delahaye, A. P., Novak, J. T. and Little, J. C.** 1999. Performance of a Biological Aerated Filter System Treating Domestic Wastewater for BOD, Ammonia and TSS Removal: Pilot Plant Results. Podium presentation. *Proceedings of the Water Environment Federation 72nd Annual Conference and Exposition*, New Orleans, LA, October 9-13, 1999.
328. **Husovitz, K. L., Gilmore, K. R., Delahaye, A. P., Love, N. G., and Little, J. C.** 1999. The influence of upflow liquid velocity on nitrification in a biological aerated filter. Podium presentation. *Proceedings of the Water Environment Federation 72nd Annual Conference and Exposition*, New Orleans, LA, October 9-13, 1999.
329. **Love, N. G., Bott, C. B., Duncan, A. J., Terlesky, K. C.** 1999. Using the molecular stress response as an indicator of system stress in complex environmental systems. Selected Podium Presentation, Association of Environmental Engineering and Science Professors Research Frontiers Conference, Pennsylvania State University, University Park, PA.
330. **Bott, C. B., Terlesky, K. C., Duncan, A. Jane, Wheeler, J., and Love, N. G.** 1998. The immunochemical detection of stress proteins as an indicator of toxic discharges to activated sludge systems. Podium presentation. *Proceedings of the Water Environment Federation 71st Annual Conference and Exposition*, Orlando, FL, October 3-7, 1998. 1:203-214.
331. **Phillips, J. B., and Love, N. G.** 1998. Biological denitrification using upflow biofiltration in recirculating aquaculture systems: pilot-scale experience and implications for full-scale. Podium presentation. *Proceedings of the Second International Conference on Successes and Failures in Commercial Recirculating Aquaculture*, Roanoke, VA. pp 171-178.
332. **Gilmore, K. R., K. J. Husovitz, T. Holst, and N. G. Love.** 1998. Influent of organic and ammonia loading on nitrifier activity and nitrification performance for a two-stage biological aerated filter system. 1998. *Proceedings of the International Specialty Conference on Microbial Ecology of Biofilms: Concepts, Tools, and Applications*, International Association on Water Quality, Lake Bluff, Illinois, October 8-10, 1998. 309-316.
333. **Terlesky, K. C. and Love, N. G.** 1998. Detection of Hsp60 in activated sludge following exposure to xenobiotic compounds. Poster Presentation, *Abstracts of the 98th General Meeting of the American Society for Microbiology*, Atlanta, Georgia, p. 444.
334. **Terlesky, K. C., and Love, N. G.** 1998. Photoheterotrophy in activated sludge, Poster Presentation, *Abstracts of the 98th General Meeting of the American Society for Microbiology*, Atlanta, Georgia, p. 423.
335. **Fettig, J. D., and Love, N. G.** 1997. BTX degradation in activated sludge culture under denitrifying conditions. Podium presentation. *Proceedings from the 2nd International Conference on Microorganisms in Activated Sludge and Biofilm Processes*, International Association on Water Quality, Berkeley, CA, pp 579-582.
336. **Lubkowitz, E. M. and Love, N. G.** 1997. Development of a single sludge biological treatment scheme that incorporates nitrogen removal for a wastewater containing compounds inhibitory to nitrification. Podium presentation. *Proceedings of the Water Environment Federation 70th Annual Conference and Exposition*, Chicago, IL, October 18-22, 1997. 3(2):577-588.
337. **Rasnake, W. J., Love, N. G., Black, W. L., and Gruber, D.** 1997. Application of a toxicity reduction evaluation at a seafood processing facility which emphasized source reduction and treatment

- efficiency to minimize environmental risk. Podium presentation. *Proceedings of the 29th Annual Mid-Atlantic Industrial and Hazardous Waste Conference*, Roanoke, VA, pp 263-269.
338. **Terlesky, K. C.** and Love, N. G. 1997. Analysis of total protein present in activated sludge: applicability to monitoring the induction of indicator proteins in a microbial consortium. Poster presentation. *Abstracts of the 97th General Meeting of the American Society for Microbiology*, Miami Beach, Florida, p. 469.
 339. **Novak, J. T., Smith, M. L., and Love, N. G.** 1996. The impact of cationic salt addition on the settleability and dewaterability of an industrial activated sludge. Podium presentation. *Proceedings of the Water Environment Federation 69th Annual Conference and Exposition*, 2:211-222.
 340. **Love, N. G.** and Grady, C. P. L. Jr., 1995. Impact of glucose and m-toluate on the rate and extent of benzoate-mediated TOL plasmid instability. Poster presentation. *Abstracts of the 95th General Meeting of the American Society for Microbiology*, Washington, D.C.
 341. **Lu, Y.-T., Love, N. G., and Grady, C. P. L. Jr.** 1993. A microscopic technique to detect plasmid-free cells in a background of plasmid-containing cells. Poster presentation. *Abstracts of the 93rd General Meeting of the American Society for Microbiology*, Atlanta, Georgia.

Published Reports (not peer reviewed)

342. Margaret R. Mulholland*, Nancy G. Love*, Deborah A. Bronk, Vikram Pattarkine, Amit Pramanik, H. David Stensel. 2009. Establishing a research agenda for assessing the bioavailability of wastewater treatment plant-derived effluent organic nitrogen in treatment systems and receiving waters. Chesapeake Bay Scientific and Technical Advisory Committee Publication 09-002, <http://www.chesapeake.org/stac/Pubs/eonreport.pdf>. (*co-chairs)
343. Mulholland, M. R., Love, N. G., Pattarkine, V. M., Bronk, D. A. and Canuel, E. 2007. Bioavailability of Organic Nitrogen from Treated Wastewater. Chesapeake Bay Scientific and Technical Advisory Committee Publication 07-001.

Conference Presentations (not listed elsewhere; presenter in bold, student designations as defined previously)

344. Several posters to be presented at the Association of Environmental Engineering and Science Professors Biannual Conference, Arizona State University, Tempe, Arizona. May 15-16, 2019.
 - A. Noe-Hays, A. Davis, **N. J. Lowe**, **J. Eraci**, **Y. J. Qoi**, A. Sabido, K. Nace, **E. Rodriguez**, K. Wigginton, **N. Love**. Onsite production of concentrated urine-derived fertilizer in building-scale systems using remote process monitoring and control.
 - **E. Rodriguez**, **W. Tazeh**, K. Wigginton, **N. G. Love**. Comparative Examination of Pharmaceutical Degradation in Synthetic Urine by a Dielectric Barrier Discharge Plasma Jet and UV/H₂O₂ Reactor.
 - Kerkez, B., N. G. Love, R. L. McCaffery, **M. Bartos**, J. Montgomery, **E. TerBeek**. A First Year College Course on Smart Water Systems.
345. Several talks were given by invitation at the Rich Earth Institute's Urine Summit, August 16-17, 2017 in Brattleboro, VT. As PI, Nancy Love was involved with developing content for all these slides and overseeing their presentations.
 - Malavika Sahai. Social Research for the UM INFEWS Project.
 - Heather Goetsch. Microbial risks in source-separated urine.
 - Enrique Rodriguez. Urine-derived fertilizer tool.
 - Dylan Raye-Leonard. Pilot-scale urine diversion and processing @ UMICH
346. **Enrique Rodriguez**, **Dylan Raye-Leonard** and **Heather Goetsch**. 2017. Overview and tour of the urine-diversion and urine processing @Michigan. AEESP Biannual Conference, June 21, 2017.
347. **McFarland, A.**, Larsen, L., Love, N.G. Stormwater Management in Low-Resource Settings Using Green Infrastructure. Fall 2017. Dow Sustainability Symposium, Poster Presentation, Ann Arbor, MI.

348. **Delgado Vela, J.**, Stadler, L., Love, N.G. 2014. Elucidating Biotransformation of Pharmaceuticals by the Methanotroph *Methylosinus trichosporium* Ob3b. Gordon Research Conference Environmental Sciences: Water, Plymouth, NH, June 22-27. (poster presentation)
349. **Stadler, L. B.**, Su, L., Stevens, L., Delgado Vela, J., Aga, D. S., and Love, N. G. 2013. Impact of Redox Environment and Microbial Populations on Pharmaceutical Biotransformation. Poster presentation. IWA 5th International Conference on Microbial Ecology and Water Engineering, Ann Arbor, MI, July 7 – 10. (poster presentation)
350. **Stadler, L. B.**, Su, L., Aga, D. S., and Love, N. G. 2013. Impact of Dissolved Oxygen Concentration on Pharmaceutical Biotransformations during Wastewater Treatment. Poster presentation. Engineering Graduate Symposium, University of Michigan, Ann Arbor, MI, November 15. (*1st place in Civil & Environmental Engineering track poster competition*).
351. **Stadler, L. B.**, Su, L., Aga, D. S., and Love, N. G. 2013. Impact of Redox Environment and Microbial Populations on Pharmaceutical Biotransformation during Wastewater Treatment. Poster presentation. 86th Annual Water Environment Federation Technical Exhibition and Conference (WEFTEC), Chicago, IL, October 5 – 9.
352. **Delgado Vela, J.**, Stadler, L., Love, N.G. 2013. Elucidating Biotransformation of Pharmaceuticals by Methanotrophic Bacteria. Association of Environmental Engineering & Science Professors (AEESP) 50th Anniversary Conference, Golden CO, July 14-16.
353. **Stadler, L. B.**, Moline, C. J., Ernstoff, A. S., Su, L., Dapcic, A. D., Aga, D., and Love, N. G. 2012. Pharmaceutical Fate in Biological Treatment Reactors Across Varying Redox Environments. Poster presentation. Gordon Research Conference, Environmental Science: Water. Holderness, NH, June 25 - 29.
354. **Love, N.G.** Challenges in Predicting Micropollutant Fate in Biological Processes. WWTMod2012 Workshop on Modelling Micropollutant Fate in Biological Processes, Mont-Sainte-Anne, Québec, Canada, Feb 26-28, 2012.
355. **Keen, O., Baik, S., Stadler, L. B.**, Linden, K. G., Aga, D. S., and Love, N.G. 2011. Assessing the Use of Advanced Oxidation and Biofiltration to Remove Recalcitrant Pharmaceuticals Downstream of Biological Treatment. Borchardt Conference, University of Michigan, Ann Arbor, MI, February 23.
356. **Cook, S. M.** and N.G. Love. A Regional Strategy for Managing Food Processing and Septage Waste: The Grand Traverse Region Collaboration. Oral presentation at *Biogas Summit*. Flint, MI, October 29, 2010.
357. **Smith, A.L.**, H.J. Dorer, N.G. Love, S.J. Skerlos, and L. Raskin. Methane Production from Domestic Wastewater using Anaerobic Membrane Bioreactors. Oral presentation at *Biogas Summit*, Flint, Michigan, October 29, 2010.
358. **Cook, S. M.** and N.G. Love. A Regional Strategy for Managing Food Processing and Septage Waste: The Grand Traverse Region Collaboration. *Michigan Food Processors Summit*. Mt. Pleasant, MI, October 20, 2010
359. **S. Ghosh**, C. M. Cremers, U. Jakob, and N. G. Love. Chlorophenols modulate expression of the multidrug resistance efflux pump MexAB-OprM in *Pseudomonas aeruginosa*. Gordon Research Conference on Environmental Sciences: Water. Holderness, New Hampshire. June 20-25, 2010
360. **Guest, J.S.**, S. J. Skerlos, N. G. Love. 2011. Quantitative sustainable design of wastewater treatment plants. Borchardt 2011 Conference: A Seminar on Advancements in Water and Wastewater, Ann Arbor, MI. February 24, 2011. Podium presentation.
361. **Cook, S. M.** and N.G. Love. 2011. Two-phase anaerobic codigestion of septage and food processing waste: designing a reliable, regional waste management strategy. *Borchardt 2011 Conference*, Ann Arbor, MI, February 23-24, 2011. Poster presentation.
362. **S. Ghosh, J. F. Muller, A. M. Stevens and N. G. Love.** Chlorinated phenols and multidrug resistance in *Pseudomonas aeruginosa*. *Borchardt 2011 Conference*, Ann Arbor, Michigan. February 23-34, 2011. Poster presentation

363. Smith, A.L., Z. Li, H.J. Dorer, N.G. Love, S.J. Skerlos, and L. Raskin. 2011. Energy recovery from domestic wastewater using anaerobic membrane bioreactors. Presented at *Borchardt 2011 Conference*, Ann Arbor, Michigan, February 23-24, 2011. Podium presentation.
364. Guest, J.S., S.J. Skerlos, N.G. Love. 2010. An optimization methodology for elucidating locality-specific sustainability trade-offs in wastewater treatment plant process selection. *IWA Leading Edge Conference on Water and Wastewater Technologies*, Phoenix, AZ, June 2, 2010. Poster presentation.
365. Knowlton, K. F., Love, N. G., Thames, T. H., and Z. Zhao. 2010. Is manure turning boy fish into girl fish? An emerging environmental challenge for livestock producers. In *Proceedings of the Virginia State Feed Association Conference*, Roanoke, VA February 19, 2010, pp 83-89.
366. Guest, J. S., Love, N. G., Lamp, J., Ellis, M. W., Naha, S., and Puri, I. K. 2008. Development of a Nitrifying Microbial Fuel Cell for Sustainable Wastewater Treatment. Podium presentation. The Borchardt Conference, Ann Arbor, MI, Feb 27, 2008.
367. Khunjar, W. O., Love, N. G., Skotnicka-Pitak, J., Aga, D. S., Yi, T., and Harper, W. F. Jr. 2008. Biotransformation of pharmaceuticals and personal care products during nitrification: the role of ammonia oxidizing bacteria. Podium presentation. The Borchardt Conference, Ann Arbor, MI, Feb. 27, 2008.
368. Aruguete, D.M., Guest, J.S., Shrout, J. D., Love, N. G., Hochella, Jr., M. F. 2008. Bacteria quantum dot interactions and their environmental implications. Poster presentation. *Environmental Nanoparticles: Science, Ethics and Policy*, University of Delaware, Newark, DE, November 10, 2008.
369. Skotnicka-Pitak, J., Aga, D. S., Khunjar, W. O., Love, N. G., Yi, T., Harper Jr., W. F. 2007. Characterization of EE2 metabolite in bioreactors with pure cultures of *Nitrosomonas europaea* and in activated sludge using LC/ITMS. *56th ASMS Conference on Mass Spectrometry*.
370. Aruguete, D.M., J.S. Guest, J.D. Shrout, N.G. Love, and M.F. Hochella, Jr. 2007. Bacterial physiology and viability in the presence of quantum dot nanoparticles: towards an environmental perspective. American Geophysical Union Fall Meeting, San Francisco, California, December 10, 2007.
371. Pinto, A.J., Hardin, S.C., Guest, J.S., Love, N.G., Shaw, A. 2007. Comparing toxic shock event response protocols for wastewater treatment plants. Podium Presentation. Virginia American Water Works Association and Virginia Water Environment Association Joint Annual Meeting (WaterJAM), Hampton, VA, September 16-20, 2007.
372. Guest, J.S., A.J. Pinto, N.G. Love, and A. Shaw. Corrective action strategies for enhanced biological phosphorus removal wastewater treatment plants during short-term and prolonged toxic shock events. Podium Presentation. Virginia American Water Works Association and Virginia Water Environment Association Water Joint Annual Meeting 2007 (Water JAM), Hampton, Virginia, September 16-20, 2007. *Winner 2007 Best Student Paper Award*.
373. Kelly, R. T. and Love, N. G. 2007. Detecting nitrification problems: A comparison of methods. Podium presentation at the Pacific Northwest Clean Water Association Annual Conference, September 9-12, 2007, Vancouver, British Columbia.
374. Guest, J. S., Naha, S., Frey, S., Sole, J.D., Love, N.G., Puri, I.K., Ellis, M. W. 2007. Development of a Nitrifying Microbial Fuel Cell for Sustainable Wastewater Treatment. Virginia Tech's Deans' Forum on the Environment. Blacksburg, VA. February 26, 2007, poster presentation. *First Place Student Poster – Environmental Technologies Category*.
375. Zhao, Z., Knowlton, K. F., Love, N. G. 2007. Can we remove estrogens in dairy manure during storage? Virginia Tech's Deans' Forum on the Environment. Blacksburg, VA. February 26, 2007, poster presentation. *First Place Student Poster - Natural Environment Category*.
376. Pinto, A.J., Guest, J.S., Love, N.G., Shaw, A. 2007. Process controls at nutrient removal wastewater treatment plants during toxic shock events. Virginia Tech's Deans' Forum on the Environment. Blacksburg, VA. February 26, 2007, poster presentation.

377. Khunjar, W. O., Baik, S., Celiz, D., Yi, T., Henriques, I. D. S., Love, N. G., Aga, D. S., and Harper Jr., W. F. 2007. Evaluation of the fate of environmentally relevant micropollutants. Virginia Tech's Deans' Forum on the Environment. Blacksburg, VA. February 26, 2007, poster presentation.
378. Gilmore, K. R., Love, N. G. and Smets, B. F. 2007. Nitrification and autotrophic nitrogen removal in a hollow-fiber membrane-aerated biofilm reactor. Virginia Tech's Deans' Forum on the Environment. Blacksburg, VA. February 26, 2007, poster presentation.
379. Ikuma, K., Henriques, I. D. S., Rzigalinski, B. A., Love, B. J., and Love, N. G. 2007. Predicting the public health impact of oxidative toxins using a bacterial glutathione-gated potassium efflux stress response biosensor. Virginia Tech's Deans' Forum on the Environment. Blacksburg, VA. February 26, 2007, poster presentation.
380. Fraga-Muller, J., Ikuma, K., Stevens, A. M., and Love, N. G. 2007. Organic contaminants cause increased antibiotic resistance in *Pseudomonas aeruginosa*. Virginia Tech's Deans' Forum on the Environment. Blacksburg, VA. February 26, 2007, poster presentation.
381. Gungor, K., Arogo Ogejo, J. Knowlton, K. F., Love, N. G. 2007. Biological phosphorus removal to produce "Designer Manures" for dairy farms. Virginia Tech's Deans' Forum on the Environment. Blacksburg, VA. February 26, 2007, poster presentation.
382. Arogo Ogejo, J., Gungor, K., Wen, Z., Hu, Z., Yao, T., Love, N. G., Knowlton, K. F. 2007. Recovery of phosphorus from dairy manure as struvite. Virginia Tech's Deans' Forum on the Environment. Blacksburg, VA. February 26, 2007, poster presentation.
383. DeBusk, J., Arogo Ogejo, J., Love, N. G., Knowlton, K. F. 2007. Adjusting N:P ratios in liquid dairy manure through nitrification and chemical phosphorus removal to match crop fertilizer requirements. Virginia Tech's Deans' Forum on the Environment. Blacksburg, VA. February 26, 2007, poster presentation.
384. Beck, J., Gilmore, K. R., Knowlton, K. F., Arogo Ogejo, J., Love, N. G. 2007. Nitrogen removal from dairy waste using deammonification fueled by fermented dairy manure. Virginia Tech's Deans' Forum on the Environment. Blacksburg, VA. February 26, 2007, poster presentation.
385. Muller, J. F., Stevens, A. M. and Love, N. G. 2006. Organic contaminants cause increased antibiotic resistance in *Pseudomonas aeruginosa*. Poster presentation. Environmental Science – Water Gordon Research Conference, June 25-30, 2006, Holderness School, Plymouth, New Hampshire.
386. Zhao, Z., Knowlton, K. F., Love, N. G., and Fang, Y. 2006. Estrogen content of treated dairy manure. Virginia Water Science and Technology Symposium, November 1-3, 2006, Blacksburg, VA. 2006 Best Student Presentation Award.
387. Capuno, R. E., Love, N. G. and Smets, B. F. 2006. Mathematical modeling of nitrogen removal via a coupled nitrification:anaerobic ammonia oxidation biofilm in a hollow fiber membrane bioreactor. Virginia Water Environment Association Annual Meeting, May 1-3, 2006, Roanoke, VA. 2006 Best Student Paper Award.
388. Muftugil, M., Knowlton, K. F., and Love, N. G. 2005. Using enhanced biological phosphorus removal to minimize nutrient delivery from dairy farms to receiving waters. Presentation at AWWA/WWEA Joint Annual Meeting, Virginia Beach, Virginia, September 26-28, 2005.
389. Khunjar, W., Sweetman, P., Knowlton, K. F., Smets, B. F. and Love, N. G. 2005. Treatment of anaerobically stabilized dairy waste with an oxygen limited autotrophic nitrification plus denitrification (OLAND) fixed film reactor: startup and maintenance issues. Presentation at AWWA/WWEA Joint Annual Meeting, Virginia Beach, Virginia, September 26-28, 2005.
390. Haley, M., Grandstaff, J. and Love, N. G. 2005. Solving a mystery: a case study using root cause analysis to decipher a toxic upset event. Presentation at AWWA/WWEA Joint Annual Meeting, Virginia Beach, Virginia, September 26-28, 2005.
391. Muftugil, M. B., Love, N. G. and Knowlton, K. F. 2005. Using Enhanced Biological Phosphorus Removal (EBPR) to Alter the Nitrogen:Phosphorus Ratio of Dairy Manure and to Minimize Nutrient

- Delivery to Receiving Waters, Water Environment Federation Innovative Uses of Agricultural Wastes Conference, Chicago, IL, July 1-3, 2005.
392. Xu, Y., Linares, K., Meehan, K. A., Love, N. G. and Love, B. J. 2004. pH dependent optical properties of surface modified gold nanoparticles using bovine serum albumin coating. NSTI Nanotechnology Conference and Trade Show, Boston, MA, March 2004.
 393. Kelly II, R. T. and Love, N. G. 2004. Investigating the role of oxidative stress mechanisms in chemically inhibited nitrifiers. Poster presentation. Environmental Science – Water Gordon Research Conference, June 27-July 1, 2004, Holderness School, Plymouth, New Hampshire.
 394. Sandu, S., Hallemann, E. and Love, N. G. 2004. Ozone treatability and pilot-scale treatment for aquaculture effluent recovery and reuse. Presented at the International Conference on Successes and Failures in Commercial Recirculating Aquaculture, Roanoke, VA, July 2004.
 395. Fleming, D., Linares, K., Xu, Y., Love, B., Love, N. and Meehan, K. 2004. Use of immobilized bacterial elements in an environmental biosensor. The Eighth World Conference on Biosensors, Granada, Spain. May 24-26, 2004.
 396. Chakraborty, I., Rhodes, R.R., Stevens, A.M., and Love, N. G. 2004. Monitoring the adaptation of an enriched bacterial consortium in response to chemical stressors using DGGE and sequencing. Poster Presentation, 10th International Symposium on Microbial Ecology, Cancun, Mexico, August 22-27, 2004.
 397. Kelly, R. T. and Love, N. G. Mechanisms of chemical inhibition of nitrification in wastewater treatment. Virginia Water Environment Association, Roanoke, VA, May 2003. 2003 Best Student Paper Award.
 398. Leung, S.M., Little, J. C., Holst, T., and Love, N. G. 2003. Oxygen transfer and consumption in a biological aerated filter. Virginia Water Environment Association, Roanoke, VA, May 2003.
 399. Dauphinais, J. L. and Love, N. G. 2003. Determination of toxic inhibition potential from industrial dischargers to a POTW using a respirometric assay. Virginia Water Environment Association, Roanoke, VA, May 2003.
 400. Bott, C.B., Henriques, I. D. S., Kelly, R. T., Dauphinais, J. L., and Love, N. G. 2002. WERF - Upset early warning systems for biological wastewater treatment. *Proceedings of the Water Environment Federation 8th Annual Industrial Wastes Technical and Regulatory Conference*, Atlantic City, New Jersey, August 11-14, 2002.
 401. Holbrook, R.D., Novak, J. T. and Love, N. G. 2002. The role of particulate and colloidal material in the fate and transport of endocrine disrupting compounds. Joint Annual Meeting of the Virginia Water Environment Association and Virginia American Water Works Association, September 2002, Virginia Beach, VA.
 402. Leung, S., Holst, T., Love, N. G. and Little, J. C. 2002. A fundamental investigation of oxygen utilization in a biological aerated filter. Joint Annual Meeting of the Virginia Water Environment Association and Virginia American Water Works Association, September 2002, Virginia Beach, VA.
 403. Kelly, R. T. II, Henriques, I. D. S., Dauphinais, J. and Love, N. G. 2002. Evaluation of source-effect relationships for activated sludge response to shock loads of disruptive chemical toxins. Joint Annual Meeting of the Virginia Water Environment Association and Virginia American Water Works Association, September 2002, Virginia Beach, VA.
 404. Wimmer, R. F. and Love, N. G. 2002. Activated sludge deflocculation in response to chlorine addition: the potassium connection. Joint Annual Meeting of the Virginia Water Environment Association and Virginia American Water Works Association, September 2002, Virginia Beach, VA.
 405. Love, N. G. and Bott, C. B. 2002. In search of physiological mechanisms linked to wastewater treatment malfunctions caused by toxic chemicals. Oral presentation. Gordon Research Conference on Microbial Stress Responses. July 14-19, Salve Regina University, Newport, Rhode Island.

406. **Brazil, B. L.** and Love, N. G. 2002. Design and implementation of a pilot-scale nitrogen removal system employing fermentation of endogenous carbon sources to treat an aquaculture waste stream. *Aquaculture America* 2002, Jan. 27-30, San Diego, CA.
407. **Wimmer, R. F.** and Love, N. G. 2001. Potassium efflux as a bacterial defense mechanism against chlorinated disinfectants. *Virginia Water Environment Association Annual Meeting*, May 2001. Williamsburg, VA. *2001 Best Student Research Paper Award*.
408. **Brazil, B. L.** and Love, N. G. 2001. Design and implementation of a pilot-scale nitrogen removal system employing fermentation and endogenous carbon sources to treat an aquaculture waste stream. *Virginia Water Environment Association Annual Meeting*, May 2001. Williamsburg, VA.
409. **Bott, C. B.** and Love, N. G. 2000. Mechanistic evaluation of activated sludge deflocculation in response to shock loads of electrophilic xenobiotic chemicals. *Virginia Water Environment Association Annual Meeting*, May 2000, Roanoke, VA. *2000 Best Student Research Paper Award*.
410. **Ma, G.** and Love, N. G. 1999. BTX biodegradation under anoxic, microaerobic, and aerobic conditions in activated sludge sequencing batch reactors. Podium presentation. *Virginia Water Environment Association Annual Meeting*, May 1999, Tyson's Corner, VA. *1999 Best Student Research Paper Award*.
411. **Love, N.G., Delahave, A., Gilmore, K. R., Holst, T., Husovitz, K. J., Little, J. C., and Novak, J. T.** 1999. Performance of a two-stage biological aerated filter system treating domestic wastewater for BOD and ammonia removal – pilot-scale results. Podium presentation. *Virginia Water Environment Association Annual Meeting*, May 1999, Tyson's Corner, VA.
412. **Love, N. G.** 1999. The Applicability of the Microbial Stress Response as an Indicator for In Situ and Up-Stream Wastewater Treatment Monitoring. Invited podium presentation. *Virginia Water Environment Association Industrial Waste and Pretreatment Seminar*, Charlottesville, VA.
413. **Ma, G., Bilyk, K.** and Love, N. G. 1999. Nitrite accumulation and inhibition during denitrification. Poster presentation. *Virginia Water Environment Association Industrial Waste and Pretreatment Seminar*, Charlottesville, VA. *2nd Place Best Student Research Award*.
414. **Phipps, S.**, Love, N. G., and Novak, J. T. 1999. Dewatering of oily wastewater sludge. Poster presentation. *Virginia Water Environment Association Industrial Waste and Pretreatment Seminar*, Charlottesville, VA. *3rd Place Best Student Research Award*.
415. **Love, N. G., Duncan, A. J., and Bott, C. B.** 1998. Detection of Hsp60 in activated sludge following heat shock and exposure to xenobiotic compounds. Poster presentation. *Gordon Research Conference on the Microbial Stress Response*, New England College, Henniker, NH.
416. **McInnis, J.**, Love, N. G., and Novak, J. T. 1998. Pilot Study of Aerobic Treatment of Waste Oily Sludge. Podium presentation. *Virginia Water Environment Association Annual Meeting*, Norfolk, Virginia.
417. **Fallon, A.**, Novak, J. T., and Love, N. G. 1998. Biological Treatment of Oily Sludge: Laboratory Studies. Podium presentation. *Virginia Water Environment Association Annual Meeting*, Norfolk, Virginia. *1998 Best Student Research Paper Award*.
418. **Phillips, J.**, and Love, N. G. 1997. Denitrification of recirculating aquaculture system waters using an upflow fixed film bioreactor. Podium presentation. *Virginia Water Environment Association Annual Meeting*, Roanoke, Virginia. *1997 Best Student Research Paper Award*.
419. **Perri, K. L.**, and Love, N. G. 1997. The effectiveness of sequential treatment strategies on the treatability of a high strength industrial wastewater. Podium presentation. *Virginia Water Environment Association Annual Meeting*, Roanoke, Virginia.
420. **Love, N. G.** and Grady, C. P. L. Jr. 1994. The impact of second substrates on the expression of a TOL plasmid. Poster presentation. *Gordon Research Conference on Environmental Sciences: Water*, New Hampton, New Hampshire.

421. Hegan (Love), N. G. and Pfeffer, J. T. 1987. Using oxidation-reduction potential as a monitoring device for biological phosphorus removal systems. Podium presentation. Texas Water Pollution Control Association Annual Meeting, Corpus Christi, Texas.

FUNDED PROJECTS

(Total Value: \$29.3 million; Share Value: \$7.4 million)

Research Support Received – External Programs

(Total Value: \$21.6 million; Share Value: \$5.8 million)

- | | |
|---|--|
| 1. Love, N. G. An effect-directed monitoring program for SWIFT effluent-Yr 2. Hampton Roads Sanitation District | \$130,000
3/1/17-continuing
100% share |
| 2. Love, N. G., J. P. Newell, M. Arabi, T. Bradley and S. P. McElmurry. Planning Grant: Engineering Research Center for Regenerative, Restorative and Resilient Community Infrastructure Systems (R3CIS). National Science Foundation. | \$100,000
09/18 – 08/20
100% share |
| 3. McElmurry, S. P., M. Seeger, N. G. Love, B. Kerkez, J. A. MacDonald Gibson. COLLABORATIVE PROPOSAL: CRISP 2.0 Type 2 – Water and Health Infrastructure Resilience and Learning (WHIRL). National Science Foundation. | \$2 million
09/18 – 08/22
5% share |
| 4. Love, N. G., V. Bertacco, B. Kerkez, L. Larsen. IRES: Advancing Cyber-Enabled, Decentralized Water Systems in Rapidly Developing Cities. National Science Foundation. | \$249,989
09/17 – 08/20
25% share |
| 5. Lastoskie, C. and N. G. Love. Workshop: Advancing Healthy Communities – the 2017 AEESP Meeting. National Science Foundation. | \$49,999
01/17 – 12/17
50% share |
| 6. Kerkez, B. and N. G. Love. Dynamic collection system reconfiguration through real-time modeling and control. Great Lakes Water Authority | \$131,864
5/22/17-11/21/18
10% share |
| 7. Daigger, G. T. and N. G. Love. Characterizing the performance and operational characteristics of the bioreactors at the Detroit, MI wastewater treatment plant. Great Lakes Water Authority. | \$100,000
5/1/17-4/30/17
10% share |
| 8. Daigger, G. T. and N. G. Love. Traverse City regional wastewater treatment plant's comma-shaped Gram positive bacteria study. Traverse City Regional Wastewater Treatment Plant. | \$120,000
9/1/16-12/31/17
25% share |
| 9. Love, N.G., D. S. Aga, R. Hardin, A. Noe-Hays, and K. R. Wigginton. INFEWS/T3: Advancing technologies and improving communication of urine-derived fertilizers for food production within a risk-based framework. National Science Foundation. | \$3 million
9/1/16-8/31/20
23% share |
| 10. McElmurry, S. (PI, Wayne State University), multiple co-PIs, N. G. Love is co-PI for project and PI for UM. Flint Area Community Health and Environment Partnership (FACHEP) Phase II Study-Enhanced disease surveillance and environmental monitoring in Flint, Michigan. State of Michigan Department of Health and Human Services. | \$2 million
8/1/16-12/31/17
~4% share |
| 11. Xu, M., J. Johnson, N. G. Love, S. Miller and J. Newell. UNS: U.S.-China: Integrated systems modeling of food-energy-water (FEW) nexus for urban sustainability. National Science Foundation. | \$499,990
6/1/16-5/31/20
10% share |
| 12. Love, N.G. and T. M. Olson. RAPID: Assessing microbiological quality across point-of-use filters deployed in Flint, MI. (\$30,250 cost share from College of Engineering). National Science Foundation. | \$49,999
4/1/16 – 3/31/2017
50% share |
| 13. Newell, J. P., G. T. Daigger, N. McClintock, A. Ramswami, J. Vandermeer. N.G. Love Senior Personnel and one of three proposal authors (with Newell and | \$69,242
7/01/15 – 12/31/15 |

	Daigger). FEW Workshop: "Scaling Up" Urban Agriculture to Mitigate Food-Energy-Water Impacts. National Science Foundation.	30% share
14.	Love, N.G. and C. B. Bott. GOALI: Developing Sensor-Mediated Control Strategies that Allow Innovative Treatment of Nitrogen in Wastewater. National Science Foundation.	\$330,000 9/1/14 – 8/31/18 100% share
15.	Wigginton, K. R., N. G. Love, J. Jimenez, A. Noe Hayes, D. S. Aga, C. B. Bott. Nutrient Recovery Through Urine Separation. Water Environment Research Foundation EPA Water Center.	\$554,034 5/1/14 – 12/31/15 10% share
16.	Raskin, L. and N. G. Love. Evaluation of Waste Activated Sludge Anaerobic Contactor (WASAC™) as a Process for Energy Conservation at Domestic Wastewater Treatment Plants. Carollo Engineering.	\$104,481 3/1/2013-4/30/2014 50% share
17.	Love, N.G., L. Raskin, C. Bott, S. Skerlos and A. Salvesson. Low Energy Alternatives for Activated Sludge-Advancing Anaerobic Membrane Bioreactor Technology. Water Environment Research Foundation.	\$527,000 1/1/2013-12/31/2014 33% share
18.	Burns, M. A. and N. G. Love. Point-of-Use Water Quality Assessment (Sensors for Faucets). MASCO Inc.	\$583,868 9/1/12-8/31/15 10% share
19.	Linden, K., D. S. Aga and N. G. Love. Demonstrating Advanced Oxidation/Biofiltration for Pharmaceutical Removal in Wastewater. Water Environment Research Foundation.	\$150,000 3/1/2012-8/31/2013 10% share
20.	Raskin, L., S. J. Skerlos and N. G. Love. Low-temperature Anaerobic Membrane Bioreactors for Sustainable Domestic Wastewater Treatment. National Science Foundation (CBET-1133793)	\$404,365 9/1/11 – 8/31/14 10% share
21.	Olson, T. and N. G. Love. Point-of-Use Devices as Incubators of Halogenated Phenol-Mediated Antibiotic Resistant Bacteria. National Science Foundation (CBET-1067450) (includes \$55,669 supplement to support dissertation work of Mr. Bayable Atnafu Kassa of Addis Ababa University)	\$373,556 5/1/11 – 4/30/15 50% share
22.	Love, N. G., J. S. Guest and S. J. Skerlos. Quantitative Sustainable Design of Chesapeake-Elizabeth WWTP Upgrade Alternatives	\$8,500 1/1/11-6/30/11 33% share
23.	Love, N. G. Understanding Microaerobic Metabolism in a Sustainable World. Water Environment Research Foundation	\$149,312 2/1/10-3/31/12 100% share
24.	Savage, P. E., G. Keoleian, A. Matzger, S. Linic, and N. Lin (Senior Personnel = H. Wang and N. G. Love). EFRI HyBi: The Science and Engineering of Microalgae Hydrothermal Processing. National Science Foundation (EFRI 0937992)	\$2,000,000 9/1/09-8/31/13 2% share
25.	Love, N. G., K. Linden and D. S. Aga. Demonstrating Advanced Oxidation Technologies on Pharmaceutical Removal Downstream of Biological Treatment. Water Environment Research Foundation.	\$80,000 1/1/10-5/15/11 34% share
26.	Love, N. G. and L. Raskin. MSB – Investigating the Relationship Between Structural Diversity and Functional Resilience to Stress in Ammonia Oxidizers. National Science Foundation (IOS-0919629)	\$312,560 9/1/09-8/31/11 50% share
27.	Raskin, L., S. J. Skerlos and N. G. Love. Anaerobic Membrane Bioreactors for Sustainable Wastewater Treatment. Water Environment Research Foundation	\$159,938 5/1/09-4/30/11 10% share

28.	Bott, C. B., Schafran, G., Mulholland, M. and Love, N. G. Integrated Fixed-Film Activated Sludge (IFAS) Demonstration Project at the James River Wastewater Treatment Plant (JRWWTP). Hampton Roads Sanitation District	\$100,000 4/1/08–3/31/09 30% share
29.	Bronk, D., Canuel, E., Hatcher, P., Love, N. G. and Mulholland, M. Collaborative Research: Assessing the Bioavailability of Effluent Organic Nitrogen Along a Freshwater to Saltwater Continuum. National Science Foundation (NG Love original PI, shifted to co-PI upon moving to MI)	\$448,073 4/1/08–3/31/10 8% share
30.	Love, N. G., Ellis, M., Puri, I. Development of a Nitrifying Microbial Fuel Cell for Sustainable Wastewater Treatment. Water Environment Research Foundation	\$155,869 3/15/07–3/14/09 50% share
31.	Edwards, M. and Love, N. G. Effects of Nitrification on Distribution System Materials. American Water Works Research Foundation	\$350,000 1/15/07–11/15/09 8% share
32.	Love, N. G. Anammox Studies in Association with DC Water and Sewer Authority. District of Columbia Water and Sewer Authority	\$95,000 9/1/06–8/31/08 100% share
33.	Love, N. G. Development of Response Protocols for Wastewater Treatment Plants Exposed to CBR Contaminants. Water Environment Research Foundation.	\$300,000 1/1/06–8/31/08 100% share
34.	Love, N. G. Preliminary Nitrification Experiments in Support of the Reject Water Treatment Study for The Blue Plains Advanced Wastewater Treatment Facility. District of Columbia Water and Sewage Authority.	\$32,133 12/24/05–6/24/06 100% share
35.	Love, N. G. Planning, Mobilization, Enrichment and Evaluation of Anammox Organisms. District of Columbia Water and Sewage Authority.	\$7,364 11/15/05–9/30/06 100% share
36.	Love, N. G. and Love, B. J. Detection of Toxins in the Water Supply. National Institute of Standards and Technology.	\$75,000 10/1/05–9/29/06 50% share
37.	Love, N. G., Aga, D. S. and Harper, W. J. Collaborative Research: The Biotransformation of Hydrophobic and Hydrophilic Pharmaceuticals and their Metabolites by Nitrifying and Heterotrophic Cultures, National Science Foundation.	\$414,196 6/1/2005–5/31/2009 26% share
38.	Bonner, J. S., Love, N. G., Jones, K. L., Zaslavsky, I., Baru, C. K., Fountain, T., Wentling, T. L., Collaborative Large-Scale Engineering Analysis Network for Environmental Research for the Coastal Margin, National Science Foundation.	\$85,309 8/1/2004–7/31/2005 8% share
39.	Love, N. G., Knowlton, K. F. and Smets, B. F. Wastewater Treatment to Minimize Nitrogen Delivery from Dairy Farms to Receiving Waters. The Cooperative Institute for Coastal and Estuarine Environmental Toxicology.	\$214,200 9/1/2004–8/31/2006 60% share
40.	Love, N. G. and Smets, B. F. Integrated Biotreatment Technology for Nitrogen-Rich Wastewaters in Advanced Life Support Systems. NASA.	\$419,119 10/1/2004–9/30/2007 90% share
41.	Shaw, A. and Love, N. G. Feasibility Testing of Support Systems to Prevent Upsets. Water Environment Research Foundation.	\$175,000 3/1/04–2/28/06 15% share
42.	Vikesland, P. and Love, N. G. Treatability Evaluation of Three Chlorinated Organic Compounds. Parsons Corporation.	\$115,730 12/19/03–12/31/04 50% share

43. Vikesland, P. and Love, N. G. Effects of Dissimilatory Iron Reducing Bacteria on the Longevity of Iron Permeable Reactive Barriers. Virginia Water Resources Research Center. \$18,500
7/1/03–6/30/04
20% share
44. Knowlton, K. F., Love, N. G. and Mullins, G. Wastewater Treatment to Minimize Nutrient Delivery from Dairy Farms to Receiving Waters. The Cooperative Institute for Coastal and Estuarine Environmental Toxicology. \$278,934
9/1/03–8/31/05
40% share
45. Love, N. G., Meehan, K. A., Love, B. J. A Microfluidic Biosensor for Environmental Monitoring. U. S. Environmental Protection Agency Midwest Hazardous Substances Research Center. \$279,022
10/1/03–9/30/06
34% share
46. Love, N. G. Factors Affecting the Performance of Acid Phase Digesters Treating Municipal Sludges: Stage I. District of Columbia Water and Sewer Authority. \$24,382
6/3/02–11/30/02
100% share
47. Vikesland, P., Love, N. G. and DiGiano, F. Assessment of Seasonal Practices and Impacts to Chloraminating Utilities. American Waterworks Association Research Foundation. \$528,362
7/1/02–1/1/05
22% share
48. Little, J. D. and Love, N. G. Optimizing a Biological Aerated Filter. Virginia Center for Innovative Technology. \$30,000
3/1/02–10/31/02
50% share
49. Little, J. C., Filz, G., Berry, D., Eick, M., Hochella, M., Love, N., Schreiber, M., Widdowson, M. GAANN: An Interdisciplinary Program in Environmental Biogeochemistry. US Dept of Education. Phase I: \$432,855
8/16/01–8/15/04
17% share
Phase II: \$373,599
8/16/04–8/15/07
8% share
50. Novak, J. T., Holbrook, D., Love, N. G. Endocrine Disrupting Potential in Wastewater Effluents and Biosolids. Virginia Water Resources Research Center. \$19,200
7/1/01–6/30/02
33% share
51. Love, N. G. and Little, J. C. Development of a Fundamentally-Based Model of a Biological Aerated Filter. Degremont North American Research and Development, Inc. \$55,420
6/11/01–8/10/02
50% share
52. Novak, J. T., Holbrook, D., Love, N. G. Endocrine Disrupting Potential in Wastewater Effluents and Biosolids. Virginia Water Resources Research Center. \$19,200
7/1/01–6/30/02
33% share
53. Bishop, P., Love, N. G., and Stevens, A. M. Adaptation of subsurface microbial biofilm communities in response to chemical stressors. EPA Hazardous Substance Research Center (Purdue University). \$214,000
9/1/01–8/31/03
50% share
54. Love, N. G., Upset early warning systems for biological treatment processes: fundamental studies on source-cause-effect relationships, Water Environment Research Foundation. \$326,646
1/1/01–4/30/04
100% share
55. Novak, J. T., Love, N. G., and Hughes, J. M. Testing of a Package Wastewater Treatment System and Consultation Services for UTD, Inc., UTD, Inc. STTR II. \$150,100
10/1/00–5/1/02
45% share
56. Love, N. G. and Love, B. J. New technologies: integrating microfluidics, materials science and microbiology: biosensors for protecting wastewater treatment systems. National Science Foundation. \$105,050
9/1/00–12/31/02
75% share
57. Love, N. G., Grizzard, T., and Novak, J. T. Virginia Tech's Plan of Study for the Loudoun County Sanitation Authority Broad Run Advanced Wastewater Treatment Pilot Plant Study. CH2M Hill, Inc. \$126,564
8/15/00–5/31/01
30% share

58.	Love, N. G. Monitoring the full-scale Biofor® biological aerated filter system at Roanoke, VA. Inflico Degremont, Inc.	\$30,000 12/24/99–2/15/01 100% share
59.	Love, N. G. and Bott, C. B. Assessment and framing workshop on upset early warning systems. Water Environment Research Foundation.	\$81,064 6/30/99–7/1/00 75% share
60.	Love, N. G. and Stevens, A. M. Characterizing nitrifying bioaugmentation cultures. Sybron Chemical Company and Virginia Center for Innovative Technology.	\$90,000 9/1/98–6/30/00 50% share
61.	Love, N. G. Evaluating protein induction patterns in industrial activated sludge cultures. Eastman Chemical Company.	\$43,294 12/1/97–12/31/98 100% share
62.	Love, N. G., Little, J. C., and Novak, J. T. A Fundamentally-based investigation into the operational potential of the Biofor® biological aerated filter. Degremont North American Research and Development, Inc., with matching from the Virginia Center for Innovative Technology.	\$95,592 9/97–12/98 50% share
63.	Widdowson, M. A. Love, N. G., and Novak, J. T. Evaluation of intrinsic bioremediation at the Douge Creek Subdivision, Ft. Belvoir, VA. Horne Engineering Services, Inc.	\$28,800 9/16/96–9/16/97 10% share
64.	Love, N. G., Widdowson, M. A., and Novak, J. T. An investigation into the use of biologically-based treatment technologies for waste oil volume reduction at Norfolk Southern Corporation. Norfolk Southern Corporation and Virginia Water Resources Research Center.	\$116,835 8/1/96–8/31/98 45% share
65.	Love, N. G. Laboratory studies to assess wastewater treatment strategies for Eastman Chemical Company. Eastman Chemical Company.	\$10,000 11/15/95–3/1/97 100% share
66.	Love, N. G. The distribution and expression of BTX-degrading microorganisms in anoxic/aerobic single sludge biological treatment processes. National Science Foundation CAREER Award.	\$335,618 7/1/95–6/30/99 100% share
67.	Love, N. G. The role of anoxic zones in preventing methylethyl ketoxime inhibition of nitrification. Virginia Water Resources Research Center and AlliedSignal Chemical Company.	\$20,000 4/1/95–4/30/96 100% share
68.	Love, N. G. and Novak, J. T. The impact of industrial wastewater composition on the bioflocculation of biological sludges. Virginia Water Resources Research Center and Eastman Chemical Company.	\$30,000 2/1/95–2/29/96 50% share

Research Support Received – Internal Programs

(Total Value: \$4.0 million Share Value: \$424,850)

69.	Love, N. G., M. Zimmerman. Partnerships that Support Confident Use and Management of Point-of-Use Drinking Water Units in Flint, MI. University of Michigan Poverty Solutions Center.	\$25,000 Jan 2020–present 90% share
70.	Love, N.G., J. Eisenberg, A. Jones. Addressing the Food-WASH Nexus Across the Urban-Rural Gradient and Impacts on Childhood Stunting. University of Michigan MCubed 2.0 Program.	\$60,000 2015–2017 33% share
71.	Schwank, J., M. Bareau, G. Fisher, P. Adriaens, E. Hill, N. G. Love, R. Clarke, J. Diana, K. Wigginton, D. Scavia, A. Hoffman, S. Miller, A. Huang-Saad, J. Trumpey, L. Raskin, S. Skerlos, A. Todd. REFRESH: Researching Fresh	\$2,998,832 7/1/14 – 6/30/17 1 of 17 co-PIs at 6% share each

- Solutions to the Energy/Water/Food Challenge in Resource-Constrained Environments. University of Michigan Third Century Initiative.
72. Newell, J., N. G. Love and R. Norton. Planning for Technological Innovation: Water, Infrastructure and Sustainability. University of Michigan MCubed program. \$60,000
1/13/13 – 12/31/14
33% share
 73. Kolars, J. D., N. G. Love, S. Fisseha, A. Burton, L. Isom, P. Yadav, J. Godfrey, and K. Sienko. A Proposal to Develop the Ethiopia-Michigan Platform for Advancing Collaborative Engagement (EM-PACE). University of Michigan Third Century Initiative. N. Love co-leads the Environmental Initiative within this program. \$297,800
1/1/14 – 8/31/15
1 of 8 co-PIs at 12% each
 74. Love, N. G., Skerlos, S., and Raskin, L. Global Sustainable Water Systems – Acknowledging Wastewater as a Resource. Graham Environmental Sustainability Institute, University of Michigan. \$5,000
1/1/08–8/1/08
34% share
 75. Love, N.G., Muller, J. F., Stevens, A. M. and Hagedorn, C. Evaluating the extent of pollution-induced antibiotic resistance in environmental bacterial strains. Virginia Water Resources Research Center. \$18,000
7/1/06–6/30/07
25% share
 76. Vikesland, P., Love, N. G. and Knocke, W. R. Construction of the Environmental BioNanoTechnology Laboratory (EB/NL), ASPIRES. \$82,030
7/1/05–6/30/06
33% share
 77. Knowlton, K. F., Love, N. G., and Ogejo, J. A. Fate of endocrine disrupting compounds in dairy manure during storage and treatment. Virginia Water Resources Research Center. \$18,000
7/1/05–6/30/06
33% share
 78. Hallerman, E. and Love, N. G. Scale up of water treatment and recovery system at Blue Ridge Aquaculture. Virginia Tech Commercial Fisheries and Shellfish Technologies Program \$26,569
7/1/01–6/30/02
50% share
 79. Love, N. G., Dietrich, A., Edwards, M., Godrej, A., Grizzard, T., Novak, J. T., Schreiber, M. Acquisition of a gas chromatograph with both mass spectrometer and flame photometric detector in support of water quality research. Virginia Tech ASPIRES program. \$88,340
1/1/01–12/31/01
14% share
 80. Gibson, H. W., Bevan, D. R., Love, N. G. A collaborative effort to establish a research program for developing biomimetic sensors using molecularly imprinted polymers (MIPs). Virginia Tech ASPIRES program. \$50,393
1/1/01–12/31/01
33% share
 81. Widdowson, M., Schreiber, M., and Love, N. G. Evaluating processes that control natural attenuation of nitrate in natural waters. Virginia Water Resources Research Center. \$5,000
7/1/00–6/30/01
33% share
 82. Love, N. G. and Knowlton, K. F. Development of a collaborative effort on environmentally responsible management of dairy wastes. Virginia Tech ASPIRES program plus College and Departmental matching support. \$37,944
1/1/00–5/31/01
50% share
 83. Stevens, A. M. and Love, N. G. Development of a *lux* reporter for the anaerobic human pathogen *Bacteroides*. Virginia Tech Optical Sciences and Engineering Research Center. \$50,000
7/1/00–6/30/01
10% share
 84. Love, N. G. and Brazil, B. L. Performance optimization and economic analysis of a fluidized denitrifying unit for treating aquaculture effluents. Virginia Tech Commercial Fisheries and Shellfish Technologies Program. \$57,456
7/1/99–6/30/01
50% share
 85. Popham, D. L., Brewer, K. J., Esen, A., Love, N. G., Rutherford, C. L., Shirley, S. W., Stevens, A. M., and Walker, R. A. Establishment of a phosphor/fluorescent imaging facility in Derring Hall. Virginia Tech ASPIRES program. \$69,200
1/98–12/99
2% share

- | | | |
|-----|--|---|
| 86. | Love, N. G. and Stevens, A. M. Development of a collaborative research effort in environmental biotechnology as applied to biological wastewater treatment systems. Virginia Tech ASPIRES program. | \$32,080
1/98–12/99
50% share |
| 87. | Widdowson, M. A., Love, N. G., Novak, J. T., and Berry, D. F. Intrinsic bioremediation of contaminants in groundwater and soil: A strategy for research and partnerships. Virginia Tech ASPIRES program. | \$37,300
4/97–3/98
25% share |
| 88. | Love, N. G. Denitrification of recirculating aquaculture system waters. Virginia Tech Commercial Fisheries and Shellfish Technologies Program. | \$6,000
3/1/95–6/30/96
100% share |
| 89. | Randall, C. W. and Love, N. G. Identification of bacterial groups in biological nutrient removal systems. Virginia CORE Research Program. | \$4,300
7/1/94–6/30/95
50% share |

Institutional/ Educational Support Received – External Programs

(Total Value: \$3.7 million, Share Value: \$1.2 million)

- | | | |
|-----|---|--|
| 90. | Love, N. G., Thole, K. A. and McCrickard, S. Development and Maintenance of a Portal Website for the NSF Advance Program, National Science Foundation. | \$94,671
9/1/04–8/31/06
12% share |
| 91. | Layne, P., Love, N. G. and Thole, K. A. ADVANCE Engineering Workshop, National Science Foundation. | \$61,381
8/1/04–1/31/05
33% share |
| 92. | McNamee, M., Hyer, P.B, Love, N. G. and Thole, K. A. ADVANCE Institutional Transformation Award for Virginia Tech. NSF. Co-initiated and co-authored proposal. Active participant from 2003-2006. | \$3,460,211
7/1/03–6/30/08
33% share |
| 93. | Oerther, D. and Love, N. G. Workshop to Explore the Value of Applying Molecular Biology Tools in Environmental Engineering, National Science Foundation. | \$21,400
10/1/01–9/30/02
10% share |
| 94. | Love, N. G. Making the Connection Program, Women in Engineering Programs and Advocates Network. | \$5,000
12/1/1999–1/31/2003
100% share |
| 95. | Little, J. C. and Love, N. G. Environmental Engineering: Creation of an electronic textbook. SUCCEED and College of Engineering Green Engineering Program. | \$30,416
1/1/95–5/31/97
50% share |

INVITED SEMINARS AND PRESENTATIONS

1. Invited Speaker – My Career Path: Seminar for CWEA-AWWA Student Chapter, California State Polytechnic University, Pomona. November 19, 2020.
2. Invited Speaker - Water Infrastructure in Resource-Constrained Shrinking and Expanding Cities: The Impact on Water Quality and Public Health. University of Arizona Department of Chemical and Environmental Engineering. September 21, 2020.
3. Invited Speaker: Rethinking America's Urban Water Infrastructure: Resource Efficiency, Access, and Public Health. University of Notre Dame, Civil and Environmental Engineering Challenges and Innovation Seminar Series. Virtual. September 17, 2020.
4. Invited Speaker. Water Infrastructure in Resource-Constrained Shrinking and Expanding Cities: The Impact on Water Quality and Public Health. Department of Environmental Engineering, Technical University of Denmark. January 17, 2020.
5. American Academy of Environmental Engineers and Scientists Kappe Lecturer

(<https://www.aees.org/kaplelectureseries/kaplelecturer.php>). 2019-2020. Offered two talks and presented both at most venues. Talk 1: "Rethinking America's Urban Water Infrastructure: Resource Efficiency, Access and Public Health" or Talk 2: "Environmental Engineering and Science Academic Scholarship in Service to Society: Our Role and Responsibility." Seventeen venues were selected among 20 applicants. Most venues involve more than one host school. Host schools include: Carnegie Mellon University and University of Pittsburgh; Clemson University; Georgia Tech; Michigan State University and Wayne State University; North Carolina State University; Old Dominion University; Rice University; University of Houston and University of Texas-Austin; Wilkes University; University of California-Merced; University of Cincinnati; University of Iowa; University of Minnesota; University of Nebraska-Lincoln; University of Rhode Island; University of Tennessee-Knoxville; University of Washington; University of Wisconsin.

6. Invited Keynote Speaker: The Microbiology of Drinking Water Systems in Shrinking and Expanding Resource-Constrained Cities and the Link to Public Health. International Water Association Microbial Ecology of Water Engineering (MEWE) Biannual Conference, Hiroshima, Japan, November 2019.
7. Invited Keynote Speaker: Achieving Resource Efficiency through Urine Separation and Nutrient Recovery: Advancing Hybrid Solutions for a Sustainable Future. Virginia Water Environment Association Education Seminar, May 8-9, 2019, Richmond, VA.
8. Invited Plenary Speaker: Shrinking and Expanding Urban Water Systems in Resource-Constrained Cities: the Link to Public Health. TransCon2019: Understanding and Managing Microbial Transformation of Environmental Contaminants, Monte Verita, Ascona, Switzerland. April 28 to May 3, 2019.
9. Invited speaker: The Microbial Characteristics of Drinking Water in Flint, MI: The Point-of-Use "Lead" Filter Field Study. Texas A&M University Department of Civil Engineering Environmental and Water Resources Seminar Series. March 4, 2019.
10. Invited speaker: Progress with Source Separation and Conversion to Fertilizer. Water Environment Federation Forum 2019: James Barnard Research Conference on Emerging Themes on Biological Phosphorus Removal and Recovery. January 14-15, 2019, Austin, TX.
11. Invited speaker: A Field Study of Microbial Changes Across Activated Carbon Block Point of Use Filters Deployed During the Flint Water Crisis. University of California-Davis. May 22, 2018.
12. Keynote speaker. "Water Infrastructure in Shrinking and Expanding Cities: The Impact on Water Quality and Public Health". Integrity of Creation Conference, The Global Water Crisis, Duquesne University. September 27-28, 2017, Pittsburgh, PA.
13. Invited speaker: Microbiome at the Global Tap: Understanding Microbial Colonization of Point-of-Use Drinking Water Filters. 14th Annual USEPA Drinking Water Workshop: Small Systems Challenges and Solutions, Cincinnati, OH, August 22-24, 2017.
14. Distinguished Lecture. Borchardt and Glysson Collegiate Professorship Induction. "At the interplay of water and health." Borchardt Conference, University of Michigan, February 22, 2017.
15. Distinguished Lecture. "The interplay between chemicals and microbiomes: an environmental biotechnology perspective." Wayne State "Water at Wayne" Lecture Series, Feb 1, 2017.
16. Invited speaker. "Microbiome at the Global Tap: Understanding microbial colonization of point-of-use drinking water filters." Marquette University, January 25, 2017
17. Invited speaker. "A Balancing Act: Achieving Nutrient Recovery via Urine-Derived Fertilizers while Managing Emerging Contaminants." University of Buffalo, November 11, 2016.
18. Distinguished Lecture. "At the Confluence: Nutrients, Trace Chemicals and Sustainability in the Urban Water Sector." Cornell University, October 24, 2016.
19. AEESP Distinguished Lecturer. 2015-2016 academic year. Presented one of two talks: "The Interplay Between Chemicals and Microbiomes: An Environmental Biotechnology Perspective", or "At the



RESOLUTION NO.:

210229

PRESENTED:

MAY 19 2021

ADOPTED:

**RESOLUTION FOR THE APPOINTMENT OF SHAWN P. MCELMMURY TO THE WATER
SYSTEM ADVISORY COUNCIL**

BY THE MAYOR:

WHEREAS, pursuant to the State of Michigan's administrative rules section 325.10410(7), water supplies serving a population of 50,000 or more, and consecutive systems serving a population of 50,000 or more, shall create a water system advisory council;

WHEREAS, the council shall consist of at least five members, appointed by the community supply;

WHEREAS, the purpose of this council is to improve transparency in the City of Flint community by developing materials and advising the water system on public awareness and education efforts.


WHEREAS, to be eligible for appointment to the council, an individual shall have a demonstrated interest in or knowledge about lead in drinking water and its effects;

WHEREAS, the council will develop plans for continuing public awareness about lead in drinking water, even when the action level is not exceeded,; review public awareness campaign materials provided by the statewide drinking water advisory council to ensure the needs and interest of the community, considering the economic and cultural diversity of its residents, are addressed; advise and consult with the water supply on the development of appropriate plans for remediation and public education to be implemented if a lead action level is exceeded; advise and consult with the water supply on efforts to replace private lead service lines at locations where the owner declined service line replacement; assist in promoting transparency of all data and documents related to lead in drinking water within the water supply service area

WHEREAS, Mayor Neeley desires to appoint Shawn P. McElmurry to the Water System Advisory Council (See Attached Resume).

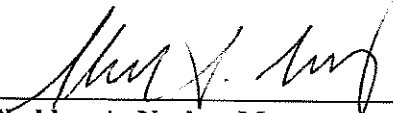
NOW THEREFORE BE IT RESOLVED, that Mayor Neeley hereby appoints Shawn P. McElmurry, address 2153 Engineering Building 5050 Anthony Wayne Drive, Detroit, MI 48202 to serve on the Water System Advisory Council.

APPROVED AS TO FORM:



Angela Wheeler (May 13, 2021 13:09 EDT)

Angela Wheeler, City Attorney

FOR THE CITY OF FLINT:


Sheldon A. Neeley, Mayor

APPROVED BY CITY COUNCIL:


Kate Fields, City Council President



CITY OF FLINT

RESOLUTION STAFF REVIEW FORM

TODAY'S DATE: 05/13/2021

BID/PROPOSAL#

AGENDA ITEM TITLE: RESOLUTION APPOINT MEMBERS TO THE WATER SYSTEM ADVISORY COUNCIL

PREPARED BY: Lottie Ferguson, Chief Resilience Officer
(Please type name and Department)

VENDOR NAME: N/A

BACKGROUND/SUMMARY OF PROPOSED ACTION:

In July 2018, the State of Michigan's Department of Environment, Great Lakes and Energy (EGLE) established the Lead and Copper Rule (LCR) under the Michigan Safe Water Drinking Act 399.

The purpose of the LCR is to minimize lead and copper in drinking water and indicates that a Water System Advisory Council (WSAC) is to be established on behalf of cities with 50,000 or more people served by its municipal water system. The WSAC is responsible for assisting with public awareness to create transparency and consumer confidence through statewide efforts of public education and action steps to ensure water quality through: water sampling, water treatment and lead service line replacement. A Council shall consist of a least five members appointed by the community supply. To be eligible for appointment to Council, an individual must have a demonstrated interest in or knowledge about lead in drinking water and its effects. At least one member must be a local resident who does not formally represent the interest of any incorporated organization.

In June 2019, the City of Flint began to establish a board for the WSAC by sending letters of interest to various community partners and members. The process of establishing the board did not see completion and was then put on hold due to a change in City administration. The open public meeting was also delayed due to the COVID-19 pandemic.

In February 2021, the Office of Public Health (OPH) sent notices of participation to public health community partners and community members and requested resumes of those individuals in order to submit an approval to Flint City Council to officially establish the Water System Advisory Council. The WSAC will be hosted by the City's OPH, who will organize and oversee the annual meeting, according to the Open Meetings Act 267. This annual meeting will inform and include the public on the City's lead and copper status, progress and next steps.

The names of the individuals who are Mayoral appointed to the Water System Advisory Council are: Dr. Lawrence Reynolds, Shawn P. McElmurry, PhD, and Benjamin Pauli, PhD, Environmental. The designated Appointees have either lived or worked within the Flint community during the Flint Water



CITY OF FLINT

BUDGET YEAR 1 \$0

BUDGET YEAR 2 \$0

BUDGET YEAR 3 \$0

OTHER IMPLICATIONS (*i.e., collective bargaining*):

STAFF RECOMMENDATION: (PLEASE SELECT): X ☐ APPROVED ☐ NOT APPROVED

DEPARTMENT HEAD SIGNATURE: Lottie Ferguson, Chief Resilience Officer
(PLEASE TYPE NAME, TITLE)

SHAWN P. MCELMURRY, PhD, PE

2158 Engineering Building
5050 Anthony Wayne Dr
Detroit, MI 48202

Office: (313) 577-3876
E-mail: s.mcelmurry@wayne.edu

EDUCATION

Ph.D. Environmental Engineering, Michigan State University, 2008
Dissertation: *Characterization of Dissolved Organic Carbon: Assessment of Copper Complexation and Export of Carbon from Watersheds as a Function of Land Use*
Co-Advisors: Thomas C. Voice and David T. Long
M.S. Environmental Engineering, Michigan State University, 2002
B.S. Chemistry major, Central Michigan University, 1998

EXPERIENCE

2014-current Associate Professor, Department of Civil & Environmental Engineering, Wayne State University
2008-2014 Assistant Professor, Department of Civil & Environmental Engineering, Wayne State University

RESEARCH PROJECTS IN LAST 5 YEARS (PI listed first, otherwise co-PI unless noted)

2018-2022 McElmurry, S.P.; Seeger, M.; O'Donnovan, K.; Sobeck, J.; Smith, R.; Kilgore, P.; Love, N.G.; Kerkez, B.; MacDonald Gibson, J.A. CRISP 2.0 Type 2: Collaborative Research: Water and Health Infrastructure Resilience and Learning (WHIRL). National Science Foundation. Award #1832692 (\$1,570,000), 9/1/2018-8/31/2022

2020-2021 Harris, A.; Crouch, P.; McElmurry, S.P. Urban Residential Soil Lead Remediation Strategies Project. Erb Family Foundation, subcontract through EcoWorks, Cayuse Award #A17-0555. 1/1/2020-12/31/2021.

2018-2019 Dittrich, T.; Allen, M.; Boukhalfa, H.; Migdissov, A.; Mohanty, S.; McElmurry, S.P. AOI 2 Coupled Hydrothermal Extraction and Ligand-Associated Organosilica Media Recovery of REEs from Coal Fly Ash. U.S. Department of Energy. Award #DE-FE0031565 (\$538,849 total)

2017-2019 Harris, A.; Crouch, P.; McElmurry, S.P. Urban Residential Soil Lead Remediation Strategies Project. Erb Family Foundation, subcontract through EcoWorks, Cayuse Award #A17-0555. 6/1/2017-12/31/2019. (subcontract \$64,646)

2016-2017 McElmurry, S.P.; Kilgore, P.; Sobeck, J.; Seeger, M.; Zervos, M.; Sullivan, L. (+17 other investigators); Flint Area Community Health and Environment Partnership (FACHEP) – PHASE II State of Michigan, Contract #20163753-00. 6/1/2016-12/21/2017 (\$3,350,000 total)

2016-2017 McElmurry, S.P. RAPID: Chemical treatment efficiency of point-of-use filters deployed in Flint, Michigan National Science Foundation, Award #1633013 (\$49,992 total)

2016-2018 McElmurry, S.P.; Miller, C.J.; Pitts, D.K.; Sackey, D.J.; Seeger, M.; Masten, S.J.; Hanna-Attisha, M. Rapid Response to Contaminants in Flint Drinking Water. National Institute of Health; National Institute of Environmental Health Sciences. Award # 1R21ES027199-01 (\$422,110 total)

2016 McElmurry, S.P.; Kilgore, P.; Seeger, M.; Zervos, M.; Sullivan, L. Flint Area Community Health and Environment Partnership (FACHEP) – PHASE I State of Michigan (\$123,091 total)

2015-2018 Nassauer, J., McElmurry, S.P., Sampson, J., Webster, J., Dewar, M., Alvarez, A., Schulz, A., Burton, A., Riseng, C. Providing support for watershed based policy and management decisions: Lake Erie and City of Detroit. Erb Family Foundation, subcontract through The University of Michigan (\$1,116,999 total; 82,392 subcontract)

2015-2018 Zhang, Y., Zhou, K., Lemke, L., McElmurry, S.P. (senior personnel) An Integrated Approach to Ensuring Food Safety and Sustainability in Urban Agriculture in the Greater Detroit Area US Department of Agriculture, grant # 2015-70001-23424 (\$272,532 total)

2015-2016 Zhang, Y., Lemke, L., Zhou, K., McElmurry, S.P. Heavy metals and the development of antibiotic resistance in urban agriculture. Center for Urban Responses to Environmental Stressors (CURES) Pilot Project funded through National Institute of Health Grant P30 ES020957 (\$80,000 total)

- 2015 Miller, C., Zhang, Y., **McElmurry, S.**, Lemke, L., Pothukuchi, K. *A Workshop for Integrative and Sustainable Food, Energy, and Water in Transitioning Urban Landscapes*. National Science Foundation, CBET Award # 1541869 (\$28,840 total)
- 2014-2016 Caruso, J.A.; **McElmurry, S.P.**; Moldenhauer, J.; Reynolds, R.; Sackey, D.; Schroeck, N.; Stemmer, P.; Westrick, J.; Zhang, K.; Giblin, F. *Petcoke in an urban environment: A community-based participatory model*. Center for Urban Responses to Environmental Stressors (CURES) Pilot Project funded through National Institute of Health Grant P30 ES020957 (\$150,000 total)

AWARDS, CERTIFICATES, HONORS, and LICENSURE

- 2014, 2015 *Outstanding Reviewer Award*, Journal of Environmental Engineering, American Society of Civil Engineers
- 2013 *2013 ExCEED New Faculty Excellence in Teaching Award*, American Society of Civil Engineering
- 2012 *Outstanding Faculty Service Award*, Engineering Student and Faculty Board, College of Engineering, Wayne State University
- 2012 *Favorite Professor Award*, Wayne State University
- 2010, 2011 *Assistant Mentor ASCE ExCEED Teaching Workshop*–American Society of Civil Engineering (ASCE) – U.S. Military Academy, West Point, NY
- 2010 *Michigan Professional Engineering License* (#6201057641, date issued 09/24/2010)
- 2009 *ExCEED Fellow* –American Society of Civil Engineering (ASCE)

PEER REVIEWED PUBLICATIONS FROM LAST 5 YEARS

*corresponding author, §graduate student, †undergraduate student

- [48] §Alla, L.N.R.; §Monshi, M.; §Siddiqua, Z.; §Shields, J.; §Alame, K.; §Wahls, A.; §Akemann, C.; §Meyer, D.; §Crofts, E.J.; §Saad, F.; §El-Nachef, J.; §Antoon, M.; §Nakhle, R.; §Hijazi, N.; §Hamid, M.; §Gurdziel, K.; **McElmurry, S.P.**; Kashian, D.R.; Baker, T.R.; *Pitt, D.K. (2021) *Detection of endocrine disrupting chemicals in Danio rerio and Daphnia pulex: Step-one, behavioral screen*. Chemosphere, 271, p.129442. DOI:10.1016/j.chemosphere.2020.129442
- [47] Salim, A.; *Kilgore, P.; Mudall, G.; **McElmurry, S.P.**; Zervos, P.K.; (2020) *Trends in Legionnaires' disease-associated hospitalizations, United States, 2006–2010*. Open Forum Infectious Diseases. DOI: 10.1093/ofid/ofaa296
- [46] *§O'Shay-Wallace, S.; Day, A.M.; §Islam, K.; **McElmurry, S.P.**; Seeger, M.W. (2020) *Boil Water Advisories as Risk Communication: Consistency between CDC Guidelines and Local News Media Articles*. Health Communication. DOI: 10.1080/10410236.2020.1827540
- [45] *Sobeck, J.; Smith-Darden, J.; Hicks, M.; Kernsmith, P.; Kilgore, P.E.; Treemore-Spears, L.; **McElmurry, S.P.** (2020) *Stress, Coping, Resilience and Trust during the Flint Water Crisis*. Behavioral Medicine. 46(3-4) DOI: 10.1080/08964289.2020.1729085 (PMID: 32787730)
- [43] *§Day, A.M.; §O'Shay-Wallace, S.; Seeger, M.W.; **McElmurry, S.P.** (2020) *Gender and Presence of Children: Examining Media Uses, Informational Needs, and Source Preferences during the Flint, Michigan Water Crisis*. Journal of International Crisis & Risk Communication Research DOI: 10.30658/jicrcr.3.2.2.
- [42] *Zahran, S.; Mushinski, D.; **McElmurry, S.P.**; Keyes, C. (2020) *Water Lead Exposure Risk in Flint, Michigan after Switchback in Water Source: Implications for Lead Service Line Replacement Policy*. Environmental Research. 181, 108928. DOI: 10.1016/j.envres.2019.108928 (NIHMSID: 1552950; PMID: 31787215)
- [41] *§Day, A.M.; §O'Shay-Wallace, S.; Seeger, M.W.; **McElmurry, S.P.** (2019) *Informational Sources, Social Media Use, and Race in Flint, Michigan's Water Crisis*. Communication studies. DOI: 10.1080/10510974.2019.1567566 (NIHMS ID: 1518397)
- [40] Zahran, S.; Iverson, T.; **McElmurry, S.P.**; Weiler, S.; & Levitt, R. (2019). *Hidden Costs of Blight and Arson in Detroit: Evidence From a Natural Experiment in Devil's Night*. Ecological Economics, 157, 266-277. DOI: 10.1016/j.ecolecon.2018.11.009
- [39] Zahran, S.; **McElmurry, S.P.**; Kilgore, P.; Mushinski, D.; §Press, D.; Love, N.; Sadler, R.; *Swanson, M.S. (2018) *Assessment of the Legionnaires' Disease outbreak in Flint, Michigan*. Proceedings of the National Academy of Sciences, February 201718679. DOI: 10.1073/pnas.1718679115
- [38] Byrne, B.G.; McColm, S.; **McElmurry, S.P.**; Kilgore, P.E.; Sobeck, J.; Sadler, R.; Love, N.G.; *Swanson, M.S. (2018) *Prevalence of infection-competent serogroup 6 Legionella pneumophila within premise plumbing in Southeast Michigan*. mBio, 9 (1), e00016-18. DOI:10.1128/mBio.00016-18
- [37] Zahran, S.; ***McElmurry, S.P.**; Sadler, R.C. (2017) *Four Phases of the Flint Water Crisis: Evidence from Blood Lead Levels in Children*. Environmental Research. 157, 160–172. DOI: 10.1016/j.envres.2017.05.028 (NIHMSID: 880419)

- [36] Zahran, S., Iverson, T., **McElmurry, S.P.**, Weiler, S. (2017) *The Effect of Leaded Aviation Gasoline on Blood Lead in Children*. Journal of the Association of Environmental and Resource Economists. 4:2, 575-610 DOI: 10.1086/691686
- [35] *Masten, S.J.; Davies, S.H.; **McElmurry, S.P.** (2016) Flint Water Crisis: What happened and why? *Journal of American Water Works Association*. 108:12, 22-34. DOI: 10.5942/jawwa.2016.108.0195 (NIHMSID: 845813)
- [34] [§]Pathirathna, P., [§]Siriwardhane, T., **McElmurry, S.P.**, Morgan, S.L., *Hashemi, P. (2016) *Fast voltammetry of metals at carbon-fiber microelectrodes: towards an online speciation sensor*. Analyst. 141, 6432 – 6437 DOI: 10.1039/C6AN01807F
- [33] [§]Siriwardhane, T., [§]Sulkanen, A., [§]Pathirathna, P., [§]Tremonti, A., **McElmurry, S.P.**, *Hashemi, P. (2016) *Voltammetric Characterization of Cu(II) Complexation in Real Time*. Analytical Chemistry. 88 (15), 7603–7608. DOI: 10.1021/acs.analchem.6b01312
- [32] Watson, S., Miller, C.J., Wilhelm, S.W., Steffen, M., Depew, D., Carmichael, W., Boyer, G.L., Murray, M., **McElmurry, S.P.**, Confesor, R., Richards, R.P., Charlton, C., Matisoff, G., Arhonditsis, G., Yerubandi, R. (2016) *Lake Erie: Sentinel of Impairment and SOS for action*. Harmful Algae. 253-219-4514. DOI: 10.1016/j.hal.2016.04.010 (PMID: 28073496)
- [31] Song, L. Li, L.; Yang, S.; Lan, J.; He, H.; **McElmurry, S.P.**; Zhao, Y. *Sulfamethoxazole, Tetracycline and Oxytetracycline and Related Antibiotic Resistance Genes in a Large-scale Landfill, China*. (2016) Science of the Total Environment, 551, 9-15. DOI:10.1016/j.scitotenv.2016.02.007
- [30] Chambers, L.G.; Chin, Y.-P.; Filippelli, G.M.; Gardner, C.B.; Herndon, E.M.; Long, D.T.; Lyons, W.B.; Macpherson, G.L.; **McElmurry, S.P.**; McLean, C.E.; Moore, J.; Moyer, R.P.; Nezat, C.A.; Soderberg, K.; Teutsch, N.; Widom, E. (2016) *Developing the scientific framework for urban geochemistry*. Applied Geochemistry. 67,1-20 DOI: 10.1016/j.apgeochem.2016.01.005
- [29] [§]Faust, K.M., *Abraham, D.D., **McElmurry, S.P.** (2015) *Sustainability of Water and Wastewater Infrastructure in Shrinking Cities*. Public Works Management & Policy, 1-29. DOI: 10.1177/1087724X15606737
- [28] *Harris, A., [§]Rogers, M.M., Miller, C.J., Wang, C., **McElmurry, S.P.** (2015) *Residential emissions reductions through variable timing of electricity consumption* Applied Energy. 158, 484-489 DOI:10.1016/j.apenergy.2015.08.042
- [27] Caruso, J.A., Zhang, K., Schroeck, N.J., **McElmurry, S.P.** (2015) *Petroleum Coke in the Urban Environment: A Review of Potential Health Effects*. International Journal of Environmental Research and Public Health. 12, 6218-6231; DOI:10.3390/ijerph120606218
- [26] [§]Zein, M., ***McElmurry, S.P.**, Kashian, D., Savolainen, P.T., Pitts, D. (2015) *Toxic effects of combined stressors on Daphnia pulex: Interactions between diazinon, 4-nonylphenol, and wastewater*. Environmental Toxicology and Chemistry. 34(5), 1145-1153. DOI: 10.1002/etc.2908
- [25] *Wang, C., Miller, C.J., Nehrir, M.H., Sheppard, J.W., **McElmurry, S.P.** (2015) *A Load Profile Management Integrated Power Dispatch Using a Newton-Like Particle Swarm Optimization Method*. Water and Energy of Sustainable Computing. 8, 8-17. DOI: 10.1016/j.suscom.2014.10.001
- [24] [§]Alighalehabakhani, F., [§]Abkenar, S.M.S., Jin, S.X., *Miller, C.J., Fracasso, P.T., **McElmurry, S.P.** (2015) *Comparative evaluation of three distinct energy optimization tools applied to real water network (Monroe)*. Sustainable Computing: Informatics and Systems. 8, 29-35. DOI:10.1016/j.suscom.2014.11.001
- [23] [§]Abkenar, S.M.S., [§]Stanely, S.D., Chase, D.V., Miller, C.J., **McElmurry, S.P.** (2015) *Evaluation of genetic algorithms using discrete and continuous methods for pump optimization of water distribution systems*. Sustainable Computing: Informatics and Systems. 8, 18-23. DOI: 10.1016/j.suscom.2014.09.003
- [22] [§]Rogers, M.M., [§]Xu, G., *Miller, C.J., **McElmurry, S.P.**, Shi, W., [§]Wang, Y., Miller, S.S., Wang, C., [§]Xu, C.Z. (2015) *HERO: A Smart-Phone Application for Location Based Emissions Estimates*. Sustainable Computing: Informatics and Systems. 8, 3-7. DOI: 10.1016/j.suscom.2014.09.001

For complete list go to: <https://scholar.google.com/citations?user=vtHimu8AAAAJ&hl=en>

OTHER ACADEMIC OUTPUT AND UNIVERSITY SERVICE (select, last 5 years)

- Love, N.G.; Jackson, R.; McElmurry, S.P. (2019) Water stays in the pipes longer in shrinking cities – a challenge for public health. The Conversation. 24 May 2019. <https://theconversation.com/water-stays-in-the-pipes-longer-in-shrinking-cities-a-challenge-for-public-health-116119>
- Love, N.G., Gebrie, G.S., Adejumo, H.A., McElmurry, S.P. (2019) Drinking Water Infrastructure in Shrinking and Expanding Cities: The Impact on Water Quality and Public Health. In G. Magil and J. Benedict (Eds) Cascading Challenges in the Global Water Crisis. Chapter Three (p. 23-39), Cambridge Scholars Publishing, ISBN: 978-1-5275-2447-7
- Zarb, A.R., McElmurry, S.P., Moldenhauer, J.A. (2017) *Technical to Teachable: The Flint Water Crisis and the Design of Instructions for Assembling Water Sampling Kits*. In Design, User Experience, and Usability: Theory, Methodology, and Management, Springer.

- Zahran, S., Laidlaw, M.A.S., McElmurry, S.P., Filippeli, G.M., Taylor, M. (2015) Linking Source and Effect: Re-suspended Soil Lead, Air Lead, and Children's Blood Lead Levels in Detroit, Michigan. In A. Hassan (Ed) *Everyday Environmental Toxins: Children's Exposure Risks* (p. 163-181). Apple Academic Press: Waretown, NJ, ISBN: 978-1-77188-101-2
- US EPA Workshop titled Michigan Water, Public Health and Healthcare Coordination Workshop, 9/16/2019, Wayne State University, Detroit, MI (Organizer and presenter)
- US EPA Webinar titled A Critical Connection: The Water and Healthcare/Public Health Sectors Webinar - Healthcare/Public Health Sector Focus, 9/26/2019 (Presenter)
- US EPA Webinar titled A Critical Connection: The Water and Healthcare/Public Health Sectors Webinar - Water Sector Focus, 9/19/2019 (Presenter)

TEACHING AND ADVISING

Undergraduate Courses

- CE4210 – Introduction to Environmental Engineering (2014, 2015)
- CE4140 – Environmental Engineering Design (2017, 2018, 2019, 2020)
- CE5220 – Environmental Chemistry (2014, 2016)
- CE5230 – Water Supply and Wastewater Engineering (2017, 2019, 2021)
- CE5995 – Special Topics: Advanced Drinking Water Treatment (2016, 2019)

Graduate Courses

- CE 6150 – Hydrologic Analysis and Design (2015, 2018, 2020)
- PSC/CE6910 – Waste Pharmaceuticals: Environmental Impact and Management (2015)
- CE7260 – Surface Water Quality Modeling (2015)
- CE7580 – Environmental Remediation (2016)
- CE7995 – Special Topics: Advanced Drinking Water Treatment (2016, 2019)

Committee Chair of 4 Ph.D. and 4 M.S. Thesis Students

Committee Member of 15 Ph.D. and 4 M.S. Thesis Students

OTHER SERVICE

Committee Assignments

- Michigan State University Department of Civil and Environmental Engineering Professional Advisory Board (2016-current)
- Graduate Program Officer, Department Civil & Environmental Engineering (2014-2016, 2020-current)
- College of Engineering P&T Committee (2016-2019)
- Wayne State University Water Safety Committee (2018-current)
- Technical Advisory Committee, Flint, MI (2015-current)
- Great Lakes Science Advisory Board's Taking Action on Lake Erie (TAcLE) work group (2012-2013). Work resulted in the following report:

Lake Erie Ecosystem Priority | Scientific Findings and Policy: Recommendations to Reduce Nutrient Loadings and Harmful Algal Bloom, Draft Summary Report, August 2013. International Joint Commission. Available at: <http://www.ijc.org/files/tinymce/uploaded/Draft%20LEEP-Aug29Final.pdf>

Public Presentations as an Expert in Discipline

- Featured in "Flint's Deadly Water" produced by FRONTLINE, SEASON 2019: EPISODE 16; premiered September 10, 2019 on PBS. Available at <https://www.pbs.org/wgbh/frontline/film/flints-deadly-water>.
- 67TH DISTRICT COURT FOR THE COUNTY OF GENESEE. THE PEOPLE OF THE STATE OF MICHIGAN v. NICHOLAS LYON (Nov. 15, Dec. 1, 2017)
- 67TH DISTRICT COURT FOR THE COUNTY OF GENESEE. THE PEOPLE OF THE STATE OF MICHIGAN v. EDEN WELLS (Dec. 11, 12, 2017)
- Featured technical expert on *Secrets of the Earth: Mother Nature Reclaims Buildings*, a TV show that premiered on the Weather Channel on October 27, 2014
- WJBK-TV Health Works, My Fox Detroit. Interviewed regarding Pb research (~133,000 viewers), Aired June 14, 2013 <http://www.myfoxdetroit.com/video?autoStart=true&topVideoCatNo=default&clipId=8991514>
- WDET-Radio Interview discussing resuspension of Pb, Aired March 19, 2013

Proposal Review Panels

- National Institute of Environmental Health Sciences – Special Emphasis Panel
- National Institute of Environmental Health Sciences – Research to Action: Assessing and Addressing Community Exposures to Environmental Contaminants
- National Institute of Health - Social Sciences and Population Studies Study Section

- National Science Foundation - Civil, Mechanical and Manufacturing Innovation
- National Science Foundation – Chemical, Bioengineering, Environmental, and Transport Systems
- National Science Foundation - Geography and Spatial Sciences

Editorial Board Memberships

- *Toxics* (ISSN 2305-63040; Impact Factor = 3.271)

Reviewer

- *Applied Geochemistry*
- *Aquatic Geochemistry*
- *Chemosphere*
- *Desalination Water Treatment*
- *Elementa: Science of the Anthropocene*
- *Environmental Geochemistry & Health*
- *Environmental Research*
- *Environmental Science & Technology*
- *Environmental Science & Technology Letters*
- *Environmental Science: Processes & Impacts*
- *Environmental Science: Water Research & Technology*
- *Geohealth*
- *International Journal of Distributed Sensor Networks*
- *Journal of Environmental Engineering*
- *Journal of Environmental Pollution*
- *Journal of Exposure Science and Environmental Epidemiology*
- *Journal of Health and Place*
- *Landscape Architecture*
- *Photogrammetric Engineering and Remote Sensing*
- *Proceedings of the National Academy of Sciences*
- *Science of the Total Environment*
- *Sustainable Chemistry*
- *Toxics*
- *Water Science and Technology: Water Supply*



RESOLUTION NO.: 210454
PRESENTED: SEP 22 2021
ADOPTED: _____

**RESOLUTION FOR THE APPOINTMENT LAURA SULLIVAN TO THE WATER SYSTEM
ADVISORY COUNCIL**

BY THE MAYOR:

WHEREAS, pursuant to the State of Michigan's administrative rules section 325.10410(7), water supplies serving a population of 50,000 or more, and consecutive systems serving a population of 50,000 or more, shall create a water system advisory council;

WHEREAS, the council shall consist of at least five members, appointed by the community supply;

WHEREAS, the purpose of this council is to improve transparency in the City of Flint community by developing materials and advising the water system on public awareness and education efforts.


WHEREAS, to be eligible for appointment to the council, an individual shall have a demonstrated interest in or knowledge about lead in drinking water and its effects;

WHEREAS, the council will develop plans for continuing public awareness about lead in drinking water, even when the action level is not exceeded; review public awareness campaign materials provided by the statewide drinking water advisory council to ensure the needs and interest of the community, considering the economic and cultural diversity of its residents, are addressed; advise and consult with the water supply on the development of appropriate plans for remediation and public education to be implemented if a lead action level is exceeded; advise and consult with the water supply on efforts to replace private lead service lines at locations where the owner declined service line replacement; assist in promoting transparency of all data and documents related to lead in drinking water within the water supply service area

WHEREAS, Mayor Neeley desires to appoint Laura Sullivan to the Water System Advisory Council (See Attached Resume).

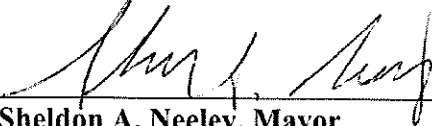
NOW THEREFORE BE IT RESOLVED, that Mayor Neeley hereby appoints Laura Sullivan address 3101 Hawthorne Drive, Flint, MI 48503 to serve on the Water System Advisory Council.

APPROVED AS TO FORM:


Angela Wheeler (Sep 15, 2021 15:26 EDT)

Angela Wheeler, City Attorney

FOR THE CITY OF FLINT:



Sheldon A. Neeley, Mayor

APPROVED BY CITY COUNCIL:

Kate Fields, City Council President



CITY OF FLINT

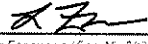
RESOLUTION STAFF REVIEW FORM

TODAY'S DATE: 09/15/2021

BID/PROPOSAL#

AGENDA ITEM TITLE: RESOLUTION APPOINT MEMBERS TO THE WATER SYSTEM ADVISORY COUNCIL

PREPARED BY: Lottie Ferguson, Chief Resilience Officer
(Please type name and Department)


Lottie Ferguson / Sep 15, 2021 16:04 EDT

VENDOR NAME: N/A

BACKGROUND/SUMMARY OF PROPOSED ACTION:

In July 2018, the State of Michigan's Department of Environment, Great Lakes and Energy (EGLE) established the Lead and Copper Rule (LCR) under the Michigan Safe Water Drinking Act 399.

The purpose of the LCR is to minimize lead and copper in drinking water and indicates that a Water System Advisory Council (WSAC) is to be established on behalf of cities with 50,000 or more people served by its municipal water system. The WSAC is responsible for assisting with public awareness to create transparency and consumer confidence through statewide efforts of public education and action steps to ensure water quality through water sampling, water treatment and lead service line replacement. A Council shall consist of a least five members appointed by the community supply. To be eligible for appointment to Council, an individual must have a demonstrated interest in or knowledge about lead in drinking water and its effects. At least one member must be a local resident who does not formally represent the interest of any incorporated organization.

In June 2019, the City of Flint began to establish a board for the WSAC by sending letters of interest to various community partners and members. The process of establishing the board did not see completion and was then put on hold due to a change in City administration. The open public meeting was also delayed due to the COVID-19 pandemic.

In February 2021, the Office of Public Health (OPH) sent notices of participation to public health community partners and community members and requested resumes of those individuals in order to submit an approval to Flint City Council to officially establish the Water System Advisory Council. The WSAC will be hosted by the City's OPH, who will organize and oversee the annual meeting, according to the Open Meetings Act 267. This annual meeting will inform and include the public on the City's lead and copper status, progress and next steps.



CITY OF FLINT

BUDGET YEAR 2 \$0

BUDGET YEAR 3 \$0

OTHER IMPLICATIONS (*i.e., collective bargaining*):

STAFF RECOMMENDATION: (*PLEASE SELECT*): X ☒ **APPROVED** ☐ **NOT APPROVED**

DEPARTMENT HEAD SIGNATURE: Lottie Ferguson, Chief Resilience Officer
(*PLEASE TYPE NAME, TITLE*)

Laura L. Sullivan, Ph. D.

Permanent Address

3101 Hawthorne Drive, Flint, MI 48503

Cell Phone: 810.252.6582

Email: dr.laura2@gmail.com

Address during home reconstruction (2021)

5071 Rockwood, Grand Blanc, MI 48439

EDUCATION

Ph. D. Materials Science
& Engineering
UTexas Arlington (1992)

Investigated the effects of morphology on mechanical behavior of semicrystalline thermoplastics using thermal analysis, mechanical testing and SEM.

M. S, Materials Science
UTexas Arlington (1988)

Investigated the mechanical response of amorphous thermoplastic using DSC, TMA, and TGA thermal analysis techniques.

B. S., Premed Engineering
Arizona State Univ. (1984)

Studied biomedical applications in engineering. Studied radiographic techniques and biocompatibility of hip joints.

EXPERIENCE

Professor (2007-present)
Assoc. Prof. (1996-2007)
Assist. Prof. (1992-1996)
Kettering University
Flint, Michigan

DESIGNING AND FACILITATING ENGINEERING CURRICULA

Developed engineering laboratory for new students, introducing appreciative inquiry through assistive device design. Managed Polymer Laboratory, bringing \$600K in capital improvements. Secured private funding for pilot course, *Engineering for Global Benefit*. Research to identify sustainable water filtration and collection technologies for the developing world.

**Associate Dean
of Students**
Office of Kettering University
Student Life
Kettering University
(1999-2002)

ENHANCING STEM STUDENT RETENTION

Created leadership development program (*COMPASS*) increasing student engagement. Developed, acquired funding for, and implemented a recruitment program for women in engineering that was recognized with the WEPAN Initiative Award. Advised and invigorated student government. Conducted longitudinal study of the effect of cooperative work on satisfaction and retention in engineering.

Founder & Advisor
Engineers Without
Borders (EWB),
and
Student Association
for Global
Engineering (SAGE)
Kettering University
2005 - present

CIVIC ENGAGEMENT FOR ENGINEERING STUDENTS

Initiated Service Learning collaborations with community stakeholders in Flint, Michigan. Founded the Kettering University chapter of Engineers Without Borders (which became a local Kettering student organization, SAGE, in 2016). Facilitated inner-city student projects for schools and disabled residents in Flint. Oversaw student potable water projects in Mexico, Haiti, and South Africa. Initiated undergraduate thesis and service learning experiences through alternative energy adaptation on the Oglala Lakota Reservation in Pine Ridge, South Dakota.

RELEVANT WORK ON FLINT WATER CRISIS EXPERIENCE

- Mayoral Appointee, City of Flint Technical Advisory Committee (2015-present)
- Team member and Flint Resident representative to Flint Area Community Health and Environment Partnership, assisting with sample collection and logistics. (2015-17)
- Governor's Appointee, Flint Water Interagency Coordinating Committee (2016-18)
- Assisted in the design of testing protocol for new drinking fountains at Flint Community Schools (2017-18). Supervised laboratory testing of activated carbon filter, porous membrane filter, and ultraviolet light disinfection components (2018-21). Coordinated installation and field testing of drinking fountains (2021).

GRANTS AND AWARDS

Cooperative Education and Internship Association,

Ralph Tyler Award for Research in Cooperative Education. (2006)

General Motors Foundation,

Biosand Filtration for Potable Water for the Village of Estanque de Leon, Mexico. \$35K (2008)

Kettering University Alumni Association,

Distinguished Faculty Citizenship Award (2010, 2016)

Outstanding Teaching Award (1998)

National Science Foundation

Academic and Cooperative Education Success For Freshmen Scholars, CSEMS, \$400K (2001)

Rotary International

Paul Harris Fellow (2017)

PRESENTATIONS

- L. L. Sullivan, panelist, "The Flint Water Crisis: Origins, Response, Recover, and Impacts," Place Matters Conference: the Flint Water Crisis through a Diversity, Equity, and Inclusion Lens, University of Michigan School of Public Health (2019).
- B. Pauli, L. Reynolds, and L. Sullivan, "Building Collaboration and Ensuring Justice in Community Based Participatory Research: Lessons Learned from California, South Carolina, and Michigan," 2019 Citizen Science Association Conference (2019).
- L. L. Sullivan, "Engineering Education Applications of the Flint Water Crisis," ABET Symposium, 2016
- L. L. Sullivan, "The Water Crisis in Flint: Evolution and Ongoing Understanding of the Crisis," Temple University, September 2016
- L. L. Sullivan, "The Importance of Cultural Understanding for Engineering Students Performing Humanitarian Aid," League for Innovation STEMtech, Kansas City, Missouri, 2012.



210455

RESOLUTION NO.: _____

PRESENTED: SEP 22 2021

ADOPTED: _____

**RESOLUTION FOR THE APPOINTMENT NAYYIRAH SHARIFF TO THE WATER
SYSTEM ADVISORY COUNCIL**

BY THE MAYOR:

WHEREAS, pursuant to the State of Michigan's administrative rules section 325.10410(7), water supplies serving a population of 50,000 or more, and consecutive systems serving a population of 50,000 or more, shall create a water system advisory council;

WHEREAS, the council shall consist of at least five members, appointed by the community supply;

WHEREAS, the purpose of this council is to improve transparency in the City of Flint community by developing materials and advising the water system on public awareness and education efforts.

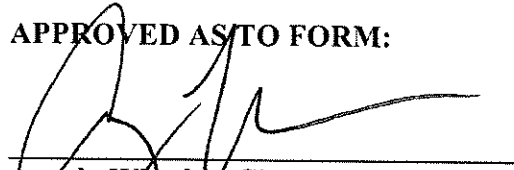
WHEREAS, to be eligible for appointment to the council, an individual shall have a demonstrated interest in or knowledge about lead in drinking water and its effects;

WHEREAS, the council will develop plans for continuing public awareness about lead in drinking water, even when the action level is not exceeded; review public awareness campaign materials provided by the statewide drinking water advisory council to ensure the needs and interest of the community, considering the economic and cultural diversity of its residents, are addressed; advise and consult with the water supply on the development of appropriate plans for remediation and public education to be implemented if a lead action level is exceeded; advise and consult with the water supply on efforts to replace private lead service lines at locations where the owner declined service line replacement; assist in promoting transparency of all data and documents related to lead in drinking water within the water supply service area

WHEREAS, Mayor Neeley desires to appoint Nayyirah Shariff to the Water System Advisory Council (See Attached Resume).


NOW THEREFORE BE IT RESOLVED, that Mayor Neeley hereby appoints Nayyirah Shariff address 3628 Beecher Road, Flint, MI 48503 to serve on the Water System Advisory Council.

APPROVED AS TO FORM:



Angela Wheeler, City Attorney

FOR THE CITY OF FLINT:



Sheldon A. Neeley, Mayor

APPROVED BY CITY COUNCIL:

Kate Fields, City Council President



CITY OF FLINT

RESOLUTION STAFF REVIEW FORM

TODAY'S DATE: 09/15/2021

BID/PROPOSAL#

AGENDA ITEM TITLE: RESOLUTION APPOINT MEMBERS TO THE WATER SYSTEM ADVISORY COUNCIL

PREPARED BY: Lottie Ferguson, Chief Resilience Officer
(Please type name and Department)

A handwritten signature in black ink, appearing to be "L. Ferguson", written over a horizontal line.

VENDOR NAME: N/A

BACKGROUND/SUMMARY OF PROPOSED ACTION:

In July 2018, the State of Michigan's Department of Environment, Great Lakes and Energy (EGLE) established the Lead and Copper Rule (LCR) under the Michigan Safe Water Drinking Act 399.

The purpose of the LCR is to minimize lead and copper in drinking water and indicates that a Water System Advisory Council (WSAC) is to be established on behalf of cities with 50,000 or more people served by its municipal water system. The WSAC is responsible for assisting with public awareness to create transparency and consumer confidence through statewide efforts of public education and action steps to ensure water quality through water sampling, water treatment and lead service line replacement. A Council shall consist of a least five members appointed by the community supply. To be eligible for appointment to Council, an individual must have a demonstrated interest in or knowledge about lead in drinking water and its effects. At least one member must be a local resident who does not formally represent the interest of any incorporated organization.

In June 2019, the City of Flint began to establish a board for the WSAC by sending letters of interest to various community partners and members. The process of establishing the board did not see completion and was then put on hold due to a change in City administration. The open public meeting was also delayed due to the COVID-19 pandemic.

In February 2021, the Office of Public Health (OPH) sent notices of participation to public health community partners and community members and requested resumes of those individuals in order to submit an approval to Flint City Council to officially establish the Water System Advisory Council. The WSAC will be hosted by the City's OPH, who will organize and oversee the annual meeting, according to the Open Meetings Act 267. This annual meeting will inform and include the public on the City's lead and copper status, progress and next steps.



CITY OF FLINT

BUDGET YEAR 2 \$0

BUDGET YEAR 3 \$0

OTHER IMPLICATIONS (*i.e., collective bargaining*):

STAFF RECOMMENDATION: (PLEASE SELECT): X ☒ **APPROVED** ☐ **NOT APPROVED**

DEPARTMENT HEAD SIGNATURE: Lottie Ferguson, Chief Resilience Officer
(PLEASE TYPE NAME, TITLE)

(810) 493-5946
nayyirah.shariff@gmail.com

Nayyirah Shariff

AREAS OF EXPERTISE

- Strategic Planning
- Community Engagement
- Conflict Resolution
- Facilitator/ Mediator
- Restorative Justice
- Policy Research
- Systems Analysis
- Leadership Development
- Environmental Justice

PROFESSIONAL EXPERIENCE

Flint Rising, Flint, MI – Director

2016 – PRESENT

- Create and monitor annual budget
- Build and maintain relationships with funders and individual donors
- Procure funding
- Collaborate with partners at the local, state, and federal level
- Develop and implement programs
- Design advocacy campaigns

Genesee County Healthy Sexuality Coalition, Flint, MI – Organizing Coordinator

2014 – 2015

- Supervise and coach coalition interns

Organizer

- Recruit and retain coalition membership
- Maintain coalition membership listserv
- Develop outreach and advocacy plans
- Created documents for both in reach and outreach

Economic Justice Alliance of Michigan, Flint, MI – Flint Field Director

2014

- Manage canvass teams
 - Collect and upload field data
 - Recruit and train field canvassers
-

Building Neighborhood Power, Flint, MI – *Oral Histories Project Coordinator*

2013-2014

- Recruit individuals for dialogue participation
- Facilitate dialogues around local history
- Transcribe dialogues into skits
- Produce collected works for the larger community

Outreach Coordinator

2012-2013

- Market events and programs to larger community
- Recruit stakeholders for event attendance
- Design workshops

VOLUNTEER EXPERIENCE

Flint Democracy Defense League, Flint, MI – *Founding Member/Coordinator*

2011-present

- Research state and local policies
- Coordinate meetings and recruit volunteers
- Analyze data for message framing

EDUCATION

University of Michigan, Michigan – *Bachelors of Science*

1999 Flint, MI

Computer Science with a concentration in Programming



RESOLUTION NO.:

210456

PRESENTED:

SEP 22 2021

ADOPTED:

**RESOLUTION FOR THE APPOINTMENT DIANA PHILLIPS TO THE WATER SYSTEM
ADVISORY COUNCIL**

BY THE MAYOR:

WHEREAS, pursuant to the State of Michigan's administrative rules section 325.10410(7), water supplies serving a population of 50,000 or more, and consecutive systems serving a population of 50,000 or more, shall create a water system advisory council;

WHEREAS, the council shall consist of at least five members, appointed by the community supply;

WHEREAS, the purpose of this council is to improve transparency in the City of Flint community by developing materials and advising the water system on public awareness and education efforts.


WHEREAS, to be eligible for appointment to the council, an individual shall have a demonstrated interest in or knowledge about lead in drinking water and its effects;

WHEREAS, the council will develop plans for continuing public awareness about lead in drinking water, even when the action level is not exceeded; review public awareness campaign materials provided by the statewide drinking water advisory council to ensure the needs and interest of the community, considering the economic and cultural diversity of its residents, are addressed; advise and consult with the water supply on the development of appropriate plans for remediation and public education to be implemented if a lead action level is exceeded; advise and consult with the water supply on efforts to replace private lead service lines at locations where the owner declined service line replacement; assist in promoting transparency of all data and documents related to lead in drinking water within the water supply service area

WHEREAS, Mayor Neeley desires to appoint Diana Phillips to the Water System Advisory Council (See Attached Resume).

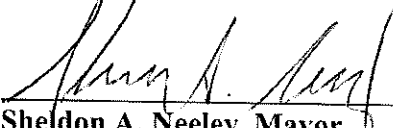
NOW THEREFORE BE IT RESOLVED, that Mayor Neeley hereby appoints Diana Philips address 510 Dougherty Place, Flint, MI 48504 to serve on the Water System Advisory Council.

APPROVED AS TO FORM:


Angela Wheeler (Sep 15, 2021 15:25 EDT)

Angela Wheeler, City Attorney

FOR THE CITY OF FLINT:


Sheldon A. Neeley, Mayor

APPROVED BY CITY COUNCIL:

Kate Fields, City Council President



CITY OF FLINT


RESOLUTION STAFF REVIEW FORM

TODAY'S DATE: 09/15/2021

BID/PROPOSAL#

AGENDA ITEM TITLE: RESOLUTION APPOINT MEMBERS TO THE WATER SYSTEM ADVISORY COUNCIL

PREPARED BY: Lottie Ferguson, Chief Resilience Officer
(Please type name and Department)


Lottie Ferguson | Sep 15, 2021 14:43 EDT

VENDOR NAME: N/A

BACKGROUND/SUMMARY OF PROPOSED ACTION:

In July 2018, the State of Michigan's Department of Environment, Great Lakes and Energy (EGLE) established the Lead and Copper Rule (LCR) under the Michigan Safe Water Drinking Act 399.

The purpose of the LCR is to minimize lead and copper in drinking water and indicates that a Water System Advisory Council (WSAC) is to be established on behalf of cities with 50,000 or more people served by its municipal water system. The WSAC is responsible for assisting with public awareness to create transparency and consumer confidence through statewide efforts of public education and action steps to ensure water quality through water sampling, water treatment and lead service line replacement. A Council shall consist of a least five members appointed by the community supply. To be eligible for appointment to Council, an individual must have a demonstrated interest in or knowledge about lead in drinking water and its effects. At least one member must be a local resident who does not formally represent the interest of any incorporated organization.

In June 2019, the City of Flint began to establish a board for the WSAC by sending letters of interest to various community partners and members. The process of establishing the board did not see completion and was then put on hold due to a change in City administration. The open public meeting was also delayed due to the COVID-19 pandemic.

In February 2021, the Office of Public Health (OPH) sent notices of participation to public health community partners and community members and requested resumes of those individuals in order to submit an approval to Flint City Council to officially establish the Water System Advisory Council. The WSAC will be hosted by the City's OPH, who will organize and oversee the annual meeting, according to the Open Meetings Act 267. This annual meeting will inform and include the public on the City's lead and copper status, progress and next steps.



It is the desire of the City to submit the approval of appointing members to complete the Water System Advisory Council, to Flint City Council. If approved, the City of Flint will, be in compliance with the Lead and Copper Rule required by the State of Michigan; create transparency with Flint residents; avoid any monetary penalties associated with the non-compliance of establishing the Water System Advisory Council.

BUDGETED EXPENDITURE? YES ☐ NO ☒ IF NO, PLEASE EXPLAIN:

PRE-ENCUMBERED? YES ☐ NO ☐ REQUISITION NO:

WILL YOUR DEPARTMENT NEED A CONTRACT? YES ☐ NO ☒
(If yes, please indicate how many years for the contract) YEARS

BUDGET YEAR 1 \$0



CITY OF FLINT

BUDGET YEAR 2 \$0

BUDGET YEAR 3 \$0

OTHER IMPLICATIONS (*i.e., collective bargaining*):

STAFF RECOMMENDATION: (*PLEASE SELECT*): X ☒ **APPROVED** ☐ **NOT APPROVED**

DEPARTMENT HEAD SIGNATURE: Lottie Ferguson, Chief Resilience Officer
(*PLEASE TYPE NAME, TITLE*)

DR. DIANA (W. DANIEL) A. PHILLIPS, PH.D.

knobhillbnb@gmail.com

510 Dougherty Place, Flint, MI 48504

810-610-8240

EDUCATION:

Ph.D. 1984 **Physical Chemistry**, The University of Texas at Austin, Thesis: "The Characterization of Platinized and Unplatinized Cerium Dioxide and Other Cerium Containing Catalyst Supports", (Prof. J.M.White)

A.B. 1978 **Chemistry**, Minor: Chemical Engineering, Youngstown State University

EXPERIENCE:

- 2014-present **Co-owner/Innkeeper**, Knob Hill Bed and Breakfast, Flint, Michigan
- 2010-2011 **Core Faculty Member**, Citizen Science Institute, Bard College, Annadale-on-Hudson, NY
- 2008 **Coordinator**, Chemical Engineering, Kettering University, Flint, MI
- 2007-2020 **Associate Professor**, Chemistry, Biochemistry & Chemical Engineering Department, Kettering University, Flint, MI
- 2007-2008 **Interim Department Head**, Chemistry & Biochemistry, Kettering University, Flint, MI
- 2006-2007 **Program Director**, Chemistry & Biochemistry, Kettering University, Flint, MI
- 2003 **Visiting Scholar**, Center for Fundamental Materials Research, Michigan State University, East Lansing, MI
- 1998 & 1996 **Associate Professor**, Science & Mathematics Department, Kettering University, Flint, MI
- 1993-94 **Visiting Professor**, Chemistry Department, Youngstown State University, Youngstown, OH
- 1991 **Visiting Research Professor**, Chemistry Department, Youngstown State University, Youngstown, OH
- 1990-97 **Assistant Professor**, Chemistry Department, GMI/Kettering University, Flint, MI
- 1988-90 **Assistant Professor**, Chemistry Department, Rose-Hulman Institute of Technology, Terre Haute, IN
- 1986 **Adjunct Professor of Chemistry**, Marist College, Poughkeepsie, NY
- 1985-88 **Senior Associate Engineer**, Small Area and Surface Analysis Department, IBM- Fishkill, Hopewell Junction, NY

RESEARCH INTERESTS:

Surface Chemistry, Interfacial Phenomena, Materials Characterization, Catalysis, Wine & Food Chemistry, and Chemical Education

PROFESSIONAL ACTIVITIES:

Symposium Organizer and Session Chair, Chemistry for Engineers Symposium, American Chemical Society (ACS) National Meeting, San Diego, March, 2012

U.S. Science and Engineering Delegation to South Africa, fall 2010

Science Advisory Board Member, International Technology, Education and Development Conference (INTED), Madrid, Spain, 2010
International Mead Association Research Group, 2006-present
National Workshop Presenter and Trainer, Career Services, American Chemical Society (ACS), 2005-present
ADEPT (Academic Development, Ethics, Promotion and Tenure) Faculty Senate Subcommittee, Kettering University, 2001-2006
Symposium Organizer, Michigan Catalysis Society, Flint, MI, 2002
Associate Discipline Chair, Chemistry Division, Kettering University, 2000-2003
Assessment Team Leader, Chemistry Division, Kettering University, 2000-2002
Teaching Fellow, Teaching Fellows Program, Kettering University, 2000-2003
Women Faculty Task Force, Kettering University, 1999-2000
Faculty Development Committee, Kettering University, 1999-2003
Chair, Chemistry Advisory Board Committee, Kettering University, 1997-2007
Core Career Consultant, American Chemical Society (ACS), 1994-present

COURSE/CURRICULUM DEVELOPMENT:

Graduate Sustainable Energy Curriculum Committee, Kettering University
Chair, Chemical Engineering Curriculum Committee, Kettering University
Pre-Med Curriculum Committee, Kettering University
Chemistry & Biochemistry Degree Curricula Committee, Kettering University
Fuel Cell Curriculum Committee, Kettering University
Environmental Chemistry Degree Curriculum Committee, Kettering/GMI
Applied Chemistry for Engineers (Lecture)
Chemistry of Fuel Cells (Lecture/Lab Course)
Colloid Science (Lecture/Lab Course)
Fuel Cell Electrochemistry (Lecture/Lab Course)
Materials Characterization (Lecture/Lab Course)
Advanced Principles of Chemistry Lecture and Laboratory Course
Policies and Ethics (Lecture Course)
Physical Chemistry I Lecture and Laboratory Course
Physical Chemistry II Lecture and Laboratory Course
Chemistry of Cooking Lecture and Laboratory Course
Chair and Coordinator, Surface Analysis Workshop for College Educators
Young Scholars, Kamp Kettering, Sustainable Energy and Spectrum outreach programs

GRANTS AWARDED:

Recipient, Passer Education Fund Grant, Colloids Short Course (2012)
Senior Personnel, National Science Foundation (NSF)-National Dissemination Grant, Surface Analysis Workshop, (2006)
Co-PI, NextEnergy Alternative Energy Technology Curriculum Implementation Grant (#04-003), \$44,000 (2004)
Senior Personnel, National Science Foundation (NSF)-CMS-Major Research Instrumentation, "Acquisition of an Environmental Scanning Electron Microscope for Undergraduate Education in Materials Characterization", STCM-0116075, \$303,089

(2002)

Co-Recipient, Kettering University's Research Initiation/Improvement Grant
"Mechanisms of Automobile Catalyst Poisoning", \$3,500 (2001)

Principal Investigator, National Science Foundation (NSF)-ILI, "Incorporation of ESCA Spectroscopy into Undergraduate Science and Engineering Programs", DUE-9751040, \$85,000 (1997-99)

Principal Investigator, National Science Foundation (NSF)-ILI, "Fourier Transform Infrared for Engineering and Environmental Science", DUE-9351321, \$23,750 (1993-95)

GMI Teaching Improvement Travel Grant, (1992 & 1999)

GMI Research Initiation/Improvement Grant, \$5,000 (1991)

SUBMITTED PROPOSALS: Status – Not Funded

NSF-DMR Instrumentation for Materials Research Grant, submitted with P. Vaishnava, M. Palmer, B. Roughani, and L. Wang, "Acquisition of an X-ray Diffractometer for Undergraduate Teaching and Research in Materials Characterization", 2003-2004

NSF-CCLI Adaptation and Implementation Grant, submitted with B. Roughani and U. Ramabadran, "Introducing STM, AFM, Hall Effect Measurements in Undergraduate Science Laboratories", 2002-2003

NSF-CCLI Adaptation and Implementation Grant, submitted with L. Wang, B. Lewis, and S. Seeley, "Enhancement and Modernization of Chemistry Laboratories with Fluorescence Spectroscopy", 2000-2001

Kettering University Rhodes Professorship 2001, submitted with E. Ubong, "Mechanisms of Automotive Catalyst Poisoning"

Denso Corporation Grant, submitted with J. Kokosa and E. Ubong, "Mechanisms of Automotive Catalyst Poisoning", **not selected by University for submission to Denso**, 2001

UNDERGRADUATE (and pre-college) RESEARCH:

Research Director, Undergraduate Thesis, Kettering University, "Poisoning Mechanism of Automobile Three Way Catalytic Converters by Oil Additive ZDDP", Amy Berlin, 2005-2006

Research Director, Undergraduate Research, Kettering University, "Mead Fermentation Analyses", Torin Peck, 2011

Research Director, Undergraduate Research, Kettering University, "Effect of Magnetic Fields on the Chemical and Physical Properties of Red Wine", Brice Seipka, 2011

Research Director, Undergraduate Research, Kettering University, "Effect of Magnetic Fields on the Sensory Perception of Merlot Wines", Brice Seipka, 2011

Research Director, Independent Research, Kettering University, "Unraveling the Mystery of the Fitzroy Storm Glass", Shane Skop, 2009

Research Director, Undergraduate Research, Kettering University, "Biomaterials and Their Effect on the Human Body", Laci Beltz, 2006-2007

Research Director, Undergraduate Research, Kettering University, "Identification of Poisons on Automobile Three Way Catalytic Converters Resulting from Oil Additive

ZDDP", Amy Berlin, 2005-2006

Research Director, Undergraduate Research, Kettering University, "Comparison of the Secondary Fermentation Rate of Mead Using Containers of Various Shapes, Colors, and Materials", Rachel Charron, 2005-2006

Research Director, Undergraduate Research, Kettering University, "Trace Metal Analysis of Wine to Determine Origin", David Knack, 2004-2005

Research Director, Undergraduate Research, Kettering University, "Surface Analysis Research", Sara Nelson, 2002-2003

Research Director, Undergraduate Research, Kettering University, "Interactions of Phosphorous on Automobile Three Way Catalyst Surfaces", Steven Nartker, 2000-2001

Research Director, Undergraduate Research, Kettering University, "Examination of Automotive Catalysts and the Effects of Oxalic Acid Washing", Steven Nartker, 2000-2001

Research Director, NSF funded Young Scholars Program (Jr. High), research published with participants, J. Chem. Ed., Vol.71, No. 1, 1994

MASTERS DEGREE RESEARCH:

Thesis Committee Member, Master of Science Thesis, "Study of an Automotive Catalytic Converter and Development of a Test Method", Thirumal Nagadi, 2002

FIFTH YEAR THESIS STUDENTS:

David Moore, "Study of Nital Etch Indications on Ground Ballscrews and Proposal of Corrective Action on Grinding Process Due to Nital Etch Indications", Mistequay Group, 2014

Benjamin Peterson, "Chemical Kinetics and Mass Transport Phenomena Coupled with Surface Coating analysis for Lithium Ion Cell Electrodes", GM, MI 2013

Andrew Heller, "Fundamental Studies of Advanced Ceria-Zirconia Oxygen Storage Materials for 3-way Catalysts", Umicore Autocat USA, 2013

Angela Bodjack, "Thermodynamic Analysis of Dow Automotive Systems' Adhesives Simultaneously Containing Calcium, Carbon Black, and Clay", Dow Automotive, MI, 2011

Esther Taxon, "Catalyst Aging and Activity", GM, Warren, MI, 2011.

Thomas Rock, "Integration of a Quadrupole Mass Spectrometer and Fourier Transform Infrared Spectroscopy with Vehicle Emission Test Cell", Umicore Automotive Catalysts, Auburn Hills, MI, 2009.

Nick Salamasick, "CNC Waste Oil Reclamation", Dura Automotive Systems Inc., Fremont, MI, 2008.

Ryan Sullivan, "Corrosion Resistant Coating for Aluminum Evaporator Coils in Commercial Deli Refrigeration Cases", Ingersoll Rand – Climate Control Technologies, Bridgeton, MO, 2007-2008.

Roneesh Vashisht, "Maximizing Durability in Anode Recirculation Pumps", Eaton Corp – Research, Southfield, MI, 2008.

Amy Berlin, "Catalytic Converter Poison Characterization", Kettering University, Flint, MI, 2006.

Korec Frank, "Effects of Washcoat Loading on Catalyst Efficiency", Umicore

Automobile Catalysts, Auburn Hills, MI, 2005.

Amy Gibbs, "Aging of Catalytic Converters", General Motors, Milford, MI, 2004.

Eric Servito, "Fuel Pipe Fillers", Shelby Enterprises, Romeo, MI, 2003.

Mark Guida, "Study of Deactivation of an Automotive Catalytic Converter and Development of a Test Method", Kettering University, Flint, MI, 2003.

Steve Nartker, "Development of a Catalyst Engine Aging Cycle that Replicates Phosphorous Poisoning", Engelhard Corporation, Iselin, NJ, 2001.

Holly Nestle, "First Phase Evaluation Results for Qualifying Small-Scale Membrane for Open Architecture Oily Waste Membrane Systems", Naval Warfare Center, West Bethesda, MD, 2001.

Justin Parmann, "Development of a New Carbon Canister Material for Evaporative Emissions Control", Pilot Industries, Inc., Dexter, MI, 2000.

Jennifer M. Reider, "Elimination of EC³Friction Material Sediment in Torque converter Clutch Applications", GM PTG, Components Operations, Flint, MI, 2000.

Jared Harvey, "Development and Implementation of World Class Internal Cleanliness at Lucas Varity Kelsey-Hayes: Fenton ABS Plant", Lucas Varity: Kelsey Hayes, Fenton, MI, 1999.

Andrew Shawver, "Chemical Wear on PCBN Cutting Tools in Cutting", Ohio State University, Engineering Research Center, Columbus, OH, 1998.

Sarah E. Herzog, "Design of Plastic Navigation Housing, Coating, and Material to Meet OEM Specifications", Rockwell Automotive, Troy, MI 1996.

Connie L. Cook, "Material Abrasion Resistance of Thermoplastic Elastomer CV Joint Boots", GKN Automotive, Auburn Hills, MI, 1996.

Vincent J. Mramor, "Integral Steering Wheel and Airbag Module", TRW safety Systems, Mesa, AZ, 1996.

Audrey Darbyshire, "Evaluation and Recommendation of Fuel Filler Environmental Coating System", Randall Textron, Troy, MI, 1997.

Garett C. Krause, "Thermodynamic evaluation of Airbag Expansion", TRW Vehicle Safety Systems Incorporated, Washington, MI, 1997.

ORGANIZATIONAL LEADERSHIP:

Conference Planning Committee, Michigan Bed and Breakfast Association, 2017 and 2018

Campaign Manager/Treasurer, Committee to Elect L. Allan Griggs, Flint, MI 2017

Member, Flint Water Advisory Board, 2015

Executive Board, Mott Park Neighborhood Association, Flint, MI, 2014

Director, Zonta Flint 1, Flint, MI, 2013-2015

Board Member & Secretary/Treasurer, Mott Park Public Golf Course Association, Flint, MI, 2010-2015

Board Member, Stockton House at Spring Grove, Flint, MI, 2008-2014

Coordinator, Chemical Engineering Degree Program, Kettering University, Flint, MI, 2008

Interim Department Head, Chemistry & Biochemistry Department, Kettering University, 2007-2008

Co-Chair, Shared Governance Performance Appraisal Committee, Kettering University,

2007-2008

Chair, Chemical and Biochemical Engineering Curriculum Committee, Kettering University, 2007-2008

Chemistry & Biochemistry Program Director, Kettering University, 2006-2007

Symposium Organizer and Session Chair, Small Chemical Business

Symposium, American Chemical Society Central Regional Meeting,

Frankenmuth, MI, 2006

Symposium Organizer and Session Chair, Michigan Catalysis Society Spring

Symposium, Flint, MI, 2002

Public Relations Chair, Industrial and Engineering Division, American Chemical Society (ACS), 2001-2004

President, Michigan Catalysis Society, 2001-2002

Associate Chemistry Discipline Chair, Kettering University, 2000-2003

Chemistry Division Assessment Team Leader, Kettering University, 2000-2002

Vice President, Michigan Catalysis Society, 2000-2001

Secretary/Treasurer, Michigan Catalysis Society, 1999-2000

Program Secretary, Industrial and Engineering Division, American Chemical Society (ACS), 1998-2001

Organizer and Session Chair, Cooperative Educational Programs in Chemistry Session, ACS, National Meeting, Orlando, 1996

Program Chair and Chair-elect, Flint Subsection, **American Chemical Society**, 1992-1993

Chair-elect, Wabash Valley Section, **ACS**, 1990

Chair, National Chemistry Week Committee, Wabash Valley Section, **ACS**, 1989

Chair, Mid-Hudson Section, **ACS**, 1988

Chair, Pre-High School Subcommittee for National Chemistry Day, Mid-Hudson Section, **ACS**, 1987

Chair-elect, Mid-Hudson Section, **ACS**, 1987

Chair, Continuing Education Committee, Mid-Hudson Section, **ACS**, 1987

Secretary, X-ray Photoelectron Spectroscopy Subcommittee, **ASTM**, 1987-88

Chair, Auger Session, **Microbeam Analysis Society**, National Meeting, Albuquerque, NM, 1986

President, Tellurium Chapter, **Iota Sigma Pi** (National Honor Society for Women in Chemistry), 1981-84

Member, Chapter Organizing Committee, **Society of Women Engineers and Scientists**, Youngstown State University (YSU), 1976

Vice-president, YSU Student Affiliates, **ACS**, 1976-78

Vice-president, New Neighbor's League (NNL) of Youngstown, 1974-75

Activities Coordinator, NNL, 1972-73

REVIEWER:

Book Reviewer, **Brooks/Cole Cengage Learning**, "Chemistry for Engineers", Brown & Holme, 2nd edition, 2012

Submission Reviewer, **Electrochemical Society**, 2010

Submission Reviewer, **International Technology, Education and Development**

Conference (INTED), 2010

Book Reviewer, **American Chemical Society (ACS)**, "Environmental Applications of Nanoscale and Microscale Reactive Particles", 2009

Grant Reviewer, **Department of Energy (DOE)**, 1998-2006

Book Reviewer, **Addison Wesley Longman**, "Materials Chemistry", 1999

Grant Reviewer, **National Science Foundation (NSF-ILI)**, 1994

PROFESSIONAL COMMUNITY ACTIVITIES & Pre-college outreach:

Zonta House, Science Night, 2015 and 2017

Sustainable Energy Pre-College Program, 2007-2012

Michigan Science & Engineering Fair Food & Beverage Coordinator, 2007-2014

Science Fair Judge, 2003-2018

Kamp Kettering Faculty, pre-college program, Kettering University, 2001 & 2004-2012

Science Olympiad Event Supervisor, Flint, MI, 2000-2005

Spectrum Faculty Member, pre-college program, Kettering University, 2000

Discover Kettering, since inception

Kettering Representative, Flint Science Fair, 1995-present

UNIVERSITY SERVICE

KAP Department Representative, 2013-2014

Transitions Advisor, 2007-2008

Graduate Sustainable Energy Curriculum Committee, 2007-2010

Sustainable Energy Pre-College Program Committee, 2007-2012

Chemistry & Biochemistry Program Director, 2005-2007

Chemistry and Biochemistry Curricula Committee, 2005-present

Faculty Advisor, American Chemical Society Student Affiliates, Kettering University Chapter, 1998-2007

ESEM (Environmental Scanning Electron Microscope) Advisory Committee, since inception

Chemistry Advisory Board Committee, 1997-present

ADEPT, 2002-2006

Faculty Senate

Chemistry/Biochemistry Search Committees, 1992-present

Fuel Cell Curriculum Committee, 2001-2009

Environmental Chemistry Curriculum Committee, 1997-2005

Associate Discipline Chair (Chemistry), 2000-2003

Battle of the Bands Judge, Kettering University, 2002

CONTINUING EDUCATION:

Organizer and Faculty, NSF-National Dissemination Workshop, Surface Analysis Workshop, 2003 & 2006

PROFESSIONAL DEVELOPMENT:

American Chemical Society Leadership Conference, Dallas, January, 2014.

Winter KEEN (Kern Entrepreneurship Education Network) Conference, Tempe,

AZ, January, 2013.

American Chemical Society (ACS) Short Course, "Dispersions in Liquids: Suspensions, Emulsions, and Foams", ACS National Meeting, San Diego, CA, March, 2011.

Student Academic Success Summit, "Promoting a Culture of Student Success: The First Year and Beyond", U of M Flint, October, 2006.

American Chemical Society Leadership Conference, Baltimore, January, 2006.

Setting and Achieving Goals Workshop, Dale Carnegie Training, Troy, MI, November, 2005.

Team-Based Learning Conference, Larry Michaelson of The University of Oklahoma, Kettering University, October, 2005.

Michigan Catalysis Society Spring Symposium, University of Michigan, Ann Arbor, May, 2005.

American Chemical Society Leadership Conference, Baltimore, January 2005.

Starting and Operating a Successful Small Business Certificate, Wayne State University, 2004

Michigan Catalysis Society Spring Symposium, Ford Research Center, Dearborn, MI, May, 2003.

Diversity Workshop, Guadalupe Lara of Children's Hospital of Michigan, Kettering University, March 25, 2003.

American Chemical Society Career Consultant's Workshop, Reston, VA, November, 2002.

National Science Foundation Grant Writing Workshop, Washington, D.C., September, 2002.

Michigan Catalysis Society Spring Symposium, Flint, May, 2002.

Workshop #2: "The Chemistry of Leadership: A Women's Leadership Development Program", Committee on the Advancement of Women Chemists, Orlando, April, 2002.

Pilot Peer Observation of Teaching Program Training Workshop, Kettering University, February 6, 2002.

Research Seminar, Patents, Trademarks, and Copyrights, Presented by Julia Dierker and Denise Glassmeyer, Patent Attorneys of Young & Baile, P.C., Kettering University, November 27, 2001.

Workshop #1: "Coaching Strong Women in the Art of Strategic Persuasion: Negotiation and Management Skills", Committee on the Advancement of Women Chemists, Boston, MA, August, 2001.

American Chemical Society Public Relations Training Workshop, Elkridge, MD, May, 2001.

Assessment Workshop, The Assessment Institute, sponsored by National Center on Postsecondary Teaching, Learning, and Assessment (NCTLA) and ACT, San Antonio, TX, February, 2001.

16th Biennial Conference on Chemical Education, University of Michigan, Ann arbor, Michigan, July 30-August 3, 2000.

CETL (Center for Excellence in Teaching and Learning), Kettering University, attended numerous presentations since its inception.

American Chemical Society National Meetings, two per year since 1994.

Michigan Catalysis Society Meetings, monthly since 1990.

PROFESSIONAL & COMMUNITY MEMBERSHIPS:

Frankenmuth Chamber of Commerce
Genesee Regional Chamber of Commerce
Mott Park Neighborhood Association
Zonta Club of Flint I
Mott Park Public Golf Course Association
Stockton Center at Spring Grove
American Chemical Society, ACS
 Chemical Education Division (ACS)
 Industrial and Engineering Division (ACS)
 Catalysis Secretariat (ACS)
 Surface & Colloid Division (ACS)
Michigan Catalysis Society
International Mead Association
American Society for Enology and Viticulture
Michigan State Science Fair Judge and Food and Activities Coordinator

HONOR SOCIETIES:

Iota Sigma Pi (National Honor Society for Women in Chemistry)
Tau Beta Pi (Engineering Honor Society)
Alpha Chi Sigma (Chemistry Fraternity)

AWARDS and HONORS:

Genesee Regional Women's Hall of Fame, 2015.
National Career Consultant of the Year, American Chemical Society, 2013.
Montclair Who's Who in College Faculty, 2011.
Robert A. Welch Fellowship, The University of Texas, 1979-81, 1983-84.
Who's Who Among Students in American Universities and Colleges, 1977-78.
American Chemical Society Undergraduate Analytical Chemistry Award,
Youngstown State University, 1977.
Dow Chemical Company Scholarship, 1976-77.
Youngstown Education Foundation Scholarship, 1976-77.

CONSULTING:

Roemer Industries, **Paint Adhesion to Etched Metal Surfaces**, 1994
McLaren Hospital, **Analyses of Amniotic Fluid**, 1993
McLaren Hospital, **Characterization of Prosthetic Joint Fluid**, 1993
Career Consultant, American Chemical Society, 1993-98
IATRICS, **Characterization of Polymer Foam**, 1992

PUBLICATIONS:

1. "Education for the Real World", in preparation for submission to the **Journal of Science Education**.

2. "Teaching Problem Solving with Mini-Lectures and Worksheets", in preparation for submission to the **Journal of Science Education**.
3. "Regeneration of Pt Electrode Activity in PBI Fuel Cells", Etim U. Ubong, Diana Phillips and Matt Gieseke, in preparation for submission to the **Journal of Electrochemistry**.
- 4 "Education for the Real World", Diana Phillips, Proceedings of the **International Technology, Education and Development Conference (INTED-2010)**, Valencia, **Spain**, March 2010.
5. "Teaching Problem Solving with Mini-Lectures and Worksheets", Diana Phillips, Proceedings of the **International Technology, Education and Development Conference (INTED-2010)**, Valencia, **Spain**, March 2010.
6. "Microscopic and Spectroscopic Characterization of Chem-mechanically Polished, Furnace Annealed, n-doped 4H:SiC", Uma Ramabadran, Bahram Roughani, and Diana Phillips, **Applied Physics A-Materials Science & Processing** 81 (3): 511-515 (AUG 2005).
7. "Materials Processing and Spectroscopic Characterization of 4H- SiC", **Proceedings of the International Conference on Physics (ICP-2004)**, B. Roughani, U. Ramabadran, D. Phillips Amir Kabir University, Tehran, **Iran**, January, 2004.
8. "Chemomechanical Polishing and Rapid Thermal Annealing of SiC: Raman Spectroscopy and ESCA (XPS) Studies", Roughani, B., Ramabadran, U., Phillips, D., Mitchel, W.C., and Neslen, C.L., **Mat. Res. Soc. Symp.**, Vol 640, H5.40, 2001.
9. "A Co-operative Approach to Chemical Education", Diana Phillips, feature article, **Journal of Chemical Education**, Vol. 75, No. 6, pp., 688-690, 1998
10. "A Simple UV Experiment of Environmental Significance", Daniel, D.W. et al., **Journal of Chemical Education**, Vol. 71, No. 1, 1994.
11. "Can Chemistry be Taught in an Interactive Classroom?", Daniel, D.W., **Proceedings, Lilly Conference on College Teaching-West**, Lake Arrowhead CA, 1993.
12. "Infrared Studies of CO and CO₂ Adsorption on Pt/CeO₂: The Characterization of Active Sites", Daniel, D.W., **Journal of Physical Chemistry**, 1988, 92, 3891.
13. Srivastava, K.K., Daniel, D.W., and Flitsch, R., "The Study of Surface Interaction of Synthetic Flux with Pb-3% Sn Solder", Daniel, D.W., **IBM Research Journal**, January, 1987.

PRESENTATIONS to PROFESSIONAL SOCIETIES and CONFERENCES:

1. "Something Old is New Again: Mead and Bitters", Diana Phillips, **The Herb Society of America, Great Lakes District Gathering**, Livonia, MI, August, 2012.
2. "Which Chemistry Topics should be Taught to Engineering Students?", Diana Phillips, **National Meeting of the American Chemical Society**, San Diego, March, 2012.
3. "Welcome to Our Interdisciplinary Toolbox: Using Surveys and Writing to Learn Activities to Engage Learners", Diana Phillips and Sherry Wynn-Perdue, **Lilly Conference on College Teaching-North**, September, 2010.
4. "The Alchemy of Mead", Diana Phillips, **invited**, the Younger Chemists Division of the **Detroit Section of the American Chemical Society** Detroit, MI, May, 2010.
5. "Regeneration of Pt Electrode Activity in H₃PO₄/PBI doped PEMFC Membrane Following CO Poisoning", Etim U. Ubong, Diana Phillips and Matt Gieseke, **ASME International Fuel Cell Conference**, N.Y., May, 2010.
6. "Regeneration of Pt Electrode Activity in PBI Fuel Cell following CO Poisoning", Etim U.

Ubong, Diana Phillips and Matt Gieseke, **Electrochemical Society**, Vancouver, **Canada**, April, 2010

7. "Education for the Real World", Diana Phillips, **International Technology, Education and Development Conference (INTED-2010)**, Valencia, **Spain**, March 2010.

8. "Teaching Problem Solving with Mini-Lectures and Worksheets", Diana Phillips, **International Technology, Education and Development Conference (INTED-2010)**, Valencia, **Spain**, March 2010.

9. "Reconstructing the Periodic Table", Diana Phillips, **International Congress of Science Education**, Cartagena, Colombia, July 2009.

10. "The Case for Teaching Topics in a Different Order in Introductory Chemistry", Diana Phillips, **International Congress of Science Education**, Cartagena, Colombia, July 2009.

11. "Academic Preparation of an Industrial Chemist", Diana Phillips, **American Chemical Society National Meeting**, Fall, 2005, Washington, D.C.

12. "Materials Processing and Spectroscopic Characterization of 4H- SiC" B. Roughani, U. Ramabadran, D. Phillips, **International Conference on Physics (ICP-2004)**, Amir Kabir University, Tehran, **Iran**, January, 2004.

13. "Chemomechanical Polishing and Rapid Thermal Annealing of SiC: Raman Spectroscopy and ESCA (XPS) Studies" Roughani, B., Ramabadran, U., Phillips, D., Mitchel, W.C., and Neslen, C.L., **Materials Research Society Symposium**, Boston, MA , 2000.

14. "Spectroscopic Characterization of Chem-mechanically Polished and Thermally Annealed n-type 4H:SiC", B. Roughani, U. Ramabadran and D. Phillips, **2002 Electronic Materials Conference**, University of California, Santa Barbara.

15. "Incorporation of ESCA into the Undergraduate Science and Engineering Curriculum", D.A. Phillips, **National Meeting of the American Chemical Society**, Chicago, IL, 2001, **invited**.

16. "Electronic SMSI: An Infrared CO Adsorption Study on Pt/CeTiO₄", Diana A. Phillips, **Michigan Catalysis Society Spring Symposium**, Detroit, MI, 1998.

17. "Bringing Surface Chemistry Research into the Physical Chemistry Laboratory", D. Phillips, **National Meeting of the American Chemical Society**, Boston, MA, 1998.

18. "A Materials Characterization Course for Engineers", D. Phillips, **National Meeting of the American Chemical Society**, Boston, MA, 1998.

19. "Incorporation of ESCA into the Undergraduate Curriculum", D. Phillips, **National Meeting of the American Chemical Society**, Boston, MA, 1998.

20. "Career and Resume Workshop", D.A. Phillips, **Great Lakes College Chemistry Conference**, East Lansing, MI, 1996.

21. "Co-op Education in Chemistry", D.A. Phillips, 212th National Meeting of the **American Chemical Society**, Orlando, FL, 1996.

22. "A Panel Discussion of the Co-op Experience", discussion leader: D.A. Phillips, 212th National Meeting of the **American Chemical Society**, Orlando, FL, 1996.

23. "The Influence of Metal-Support Interaction on the Formation of Active Sites on Binary Oxide Supported Platinum", D.A. Phillips and G. Metz, 108th National Meeting of the **American Chemical Society**, Washington, D.C., 1994.

24. "Coverage Effects of Pyridine Adsorption on Silica-Alumina", D.A. Phillips and G. Metz, 108th National Meeting of the **American Chemical Society**, Washington, D.C., 1994.

25. "Student Participation in the Learning Process", D.A. Phillips, 108th National Meeting

- of the **American Chemical Society**, Washington, D.C., 1994.
26. "Fourier Transform Infrared Instrumentation for Engineering and Environmental Sciences", J.M. Kokosa and D.A. Phillips, 108th National Meeting of the **American Chemical Society**, Washington, D.C., 1994.
 27. "How We Teach: Reaching the Disenfranchised", D.A. Phillips, 25th Central Regional Meeting of the **American Chemical Society**, Pittsburgh, PA, 1993.
 28. "A User's Guide to Surface Analysis", D.W. Daniel, **Society of Manufacturing Engineers**, Chicago, IL, 1993.
 29. "Cooperative Learning Workshop", 4th Annual National **Conference on Problem Solving Across the Curriculum**, Geneva, NY, 1993.
 30. "Can Chemistry be Taught in an Interactive Classroom?", D.W. Daniel, **Lilly Conference on College Teaching-West**, Lake Arrowhead, CA, 1993.
 31. "Chemistry, It's Not for Everyone, or Is It?", D.W. Daniel, **American Chemical Society**, Flint Subsection, Flint, MI, 1992, **invited**
 32. "Industry vs. Graduate School, Which Will it Be?", D.W. Daniel, **American Chemical Society Student Affiliates**, Rose-Hulman Institute of Technology, Terre Haute, IN, 1989, **invited**.
 33. "Surface Characterization of Pt/CeO₂ and Related Pt-Ce Systems", D.W. Daniel, **Engelhard Chemical Co**, Menlo Park, NJ, 1988, **invited**.
 34. "Catalysis: The Not-So-Black Box", D.W. Daniel, **Youngstown State University**, Youngstown, OH, 1988, **invited**.
 35. "Analytical Services at GMI", D.W. Daniel, **GMI Industrial Symposium**, Flint, MI, 1992.
 36. "CO Adsorption on Binary Oxide Supported Platinum: A Catalyst Characterization Study", **GMI Industrial Symposium**, Flint, MI, 1991.
 37. "Catalyst/Materials Characterization via Surface Analytical Techniques", D.W. Daniel, **GMI Industrial Symposium**, Flint, MI, 1990.
 38. "The Study of Surface Interaction of Synthetic Flux with Pb-3% Sn Solder", K.K. Srivastava, D.W. Daniel, and R. Flitsch, **IBM General Technologies Conference**, Chattanooga, TN, 1987.
 39. "CO Adsorption on Binary Oxide Supported Pt", D.W. Daniel, National Meeting of the **American Chemical Society**, Chicago, IL, 1985.
 40. "The Adsorption of CO on Oxidized and Reduced Pt/CeO₂", D.W. Daniel, National Meeting of the **American Chemical Society**, St. Louis, MO, 1984.

PRESENTATIONS TO KETTERING FACULTY AND STUDENTS

Educational Research

1. "There is More than One Way to Meet Course Objectives", Diana Phillips, **CETL (Center for Excellence in Teaching and Learning)**, **First Annual Educational Research Conference**, March 27, 2002, Kettering University.
2. "From Dull to Dynamic", Diana Phillips, **CETL presentation**, 2002, Kettering University.

Original Scientific Research

1. "A Study of Heavy Metals in the Flint River", Torin Peck and Diana Phillips, 2012
2. "Effect of Magnetic Fields on the Chemical and Physical Properties of Red Wine", Brice

Seipka and Diana Phillips, 2011

3. "Effect of Magnetic Fields on the Sensory Perception of Merlot Wines", Brice Seipka and Diana Phillips, 2011
4. "Identification of Poisons on Automobile Three Way Catalytic Converters Resulting from Oil Additive ZDDP", Amy Berlin and Diana Phillips, 2006
5. "Comparison of the Secondary Fermentation Rate of Mead Using Containers of Various Shapes, Colors, and Materials", Rachel Charron and Diana Phillips, 2006
6. "Trace Metal Analysis of Wine to Determine Origin", David Knack and Diana Phillips, 2005
7. "Surface Analysis Research", Sara Nelson and Diana Phillips, 2003
8. "Interactions of Phosphorous on Automobile Three Way Catalyst Surfaces", Steven Nartker and Diana Phillips, 20019. "Examination of Automotive Catalysts and the Effects of Oxalic Acid Washing", Steven Nartker and Diana Phillips, 2001



RESOLUTION NO.: 210457

PRESENTED: SEP 22 2021

ADOPTED: _____

**RESOLUTION FOR THE APPOINTMENT WENDY BRAUN TO THE WATER SYSTEM
ADVISORY COUNCIL**

BY THE MAYOR:

WHEREAS, pursuant to the State of Michigan's administrative rules section 325.10410(7), water supplies serving a population of 50,000 or more, and consecutive systems serving a population of 50,000 or more, shall create a water system advisory council;

WHEREAS, the council shall consist of at least five members, appointed by the community supply;

WHEREAS, the purpose of this council is to improve transparency in the City of Flint community by developing materials and advising the water system on public awareness and education efforts.

WHEREAS, to be eligible for appointment to the council, an individual shall have a demonstrated interest in or knowledge about lead in drinking water and its effects;

WHEREAS, the council will develop plans for continuing public awareness about lead in drinking water, even when the action level is not exceeded; review public awareness campaign materials provided by the statewide drinking water advisory council to ensure the needs and interest of the community, considering the economic and cultural diversity of its residents, are addressed; advise and consult with the water supply on the development of appropriate plans for remediation and public education to be implemented if a lead action level is exceeded; advise and consult with the water supply on efforts to replace private lead service lines at locations where the owner declined service line replacement; assist in promoting transparency of all data and documents related to lead in drinking water within the water supply service area

WHEREAS, Mayor Neeley desires to appoint Wendy Braun to the Water System Advisory Council (See Attached Resume).



CITY OF FLINT


RESOLUTION STAFF REVIEW FORM

TODAY'S DATE: 09/15/2021

BID/PROPOSAL#

AGENDA ITEM TITLE: RESOLUTION APPOINT MEMBERS TO THE WATER SYSTEM ADVISORY COUNCIL

PREPARED BY: Lottie Ferguson, Chief Resilience Officer
(Please type name and Department)


Lottie Ferguson (Sep 15, 2021 11:50 EDT)

VENDOR NAME: N/A

BACKGROUND/SUMMARY OF PROPOSED ACTION:

In July 2018, the State of Michigan's Department of Environment, Great Lakes and Energy (EGLE) established the Lead and Copper Rule (LCR) under the Michigan Safe Water Drinking Act 399.

The purpose of the LCR is to minimize lead and copper in drinking water and indicates that a Water System Advisory Council (WSAC) is to be established on behalf of cities with 50,000 or more people served by its municipal water system. The WSAC is responsible for assisting with public awareness to create transparency and consumer confidence through statewide efforts of public education and action steps to ensure water quality through water sampling, water treatment and lead service line replacement. A Council shall consist of a least five members appointed by the community supply. To be eligible for appointment to Council, an individual must have a demonstrated interest in or knowledge about lead in drinking water and its effects. At least one member must be a local resident who does not formally represent the interest of any incorporated organization.

In June 2019, the City of Flint began to establish a board for the WSAC by sending letters of interest to various community partners and members. The process of establishing the board did not see completion and was then put on hold due to a change in City administration. The open public meeting was also delayed due to the COVID-19 pandemic.

In February 2021, the Office of Public Health (OPH) sent notices of participation to public health community partners and community members and requested resumes of those individuals in order to submit an approval to Flint City Council to officially establish the Water System Advisory Council. The WSAC will be hosted by the City's OPH, who will organize and oversee the annual meeting, according to the Open Meetings Act 267. This annual meeting will inform and include the public on the City's lead and copper status, progress and next steps.

Wendy Braun

OWNER - Wendy's Kitchen

Flint, MI 48503

wbraun3@comcast.net

810-938-6816

Work Experience

Owner

Wendy's Kitchen - Flint, MI

June 2014 to Present

Prepare, package, label and sell baked goods at area farm markets and by special orders, working within the guidelines of the Michigan Cottage Food Law. The law allows products to be produced in a home kitchen, and earnings can't exceed \$10,000 annually. Products include cakes, pies, cupcakes, bars and brownies.

COMMUNITY ENGAGEMENT SPECIALIST

City of Flint - Flint, MI

September 2014 to July 2016

Performed confidential and complex administrative and clerical duties. Provided outreach and technical assistance to City of Flint water customers. Compiled, analyzed, managed, maintained, and reviewed Flint's water crisis reports and statistics, and communicated weekly feedback reports to the administration, City Council and water crisis partners on the status of community participation. Scheduled appointments for customers to receive bottled water, filters, lead testing and home lead inspection services. Worked to resolve residents water service complaints and issues. Planned, coordinated, managed, and participated in community water crisis outreach initiatives.

SEASONAL STORE MANAGER

Headway Workforce Solutions/Hickory Farms - Raleigh, NC

October 2013 to January 2014

(Seasonal Position)

This was a seasonal position in which a kiosk was set up in an area mall selling Hickory Farms products during November and December 2013. Responsibilities included assembling and stocking the kiosk, hiring, training, supervising, and scheduling employees, balancing daily and weekly receipts, preparing payroll, daily bank deposits, preparing and distributing samples to shoppers, operating a pos system, and any additional duties related to the successful operation of a small business. My team and myself sold over \$47,000 in product in 6 weeks, which placed us in 2nd place behind a kiosk which was located at Great Lakes Crossing in Auburn Hills, Michigan.

TEAM LEAD/EVENT SPECIALIST

Crossmark - Plano, TX

March 2009 to September 2012

Presented, demonstrated, and provided samples of both food and non-food products to customers in an area Wal Mart store. Met and/or exceeded daily sales goals. Developed and maintained

relationships with store personnel. Set up displays of products to ensure maximum visibility. Prepared and submitted a report upon completion of the demo.

MAYOR'S AIDE/COMMUNITY CENTER DIRECTOR

City of Flint - Flint, MI

July 2006 to February 2009

Provided administrative and clerical support. Served as a liaison between the Mayor's office, City Council and the residents. Organized and managed special events. Created and distributed newsletters to the community. Assisted residents and providing solutions with any questions and concerns they had associated with the Department of Public Works including but not limited to potholes, sinkholes, traffic signals, damaged trees, and water bill payment arrangements. Greeted and directed visitors to the appropriate individual and/or department. Worked in the capacity of a Center Director at 2 Community Centers which entailed supervising and scheduling employees assigned to the Centers, planning activities for both youth and seniors. Activities included arts and crafts, line dancing exercise classes, basic computer skills, woodworking, and cooking.

Education

CERTIFICATION in Grant Writing

University of Michigan - Flint, MI

July 2013

AAS with High Honors in Criminal Justice

Mott Community College - Flint, MI

September 1978 to December 1979

Paralegal Studies

Baker College - Flint, MI

September 1976 to December 1977

Environmental Law

Ferris State University - Big Rapids, MI

September 1975 to May 1976

Skills

- Customer Service
- Customer Care
- Customer Support
- CSR

Certifications and Licenses

Food Safety Manager Certification - National Registry of Food Safety Professionals

Present

Assessments

Written Communication — Highly Proficient

February 2019

Measures a candidate's ability to convey written information using proper grammar rules.

Full results: https://share.indeedassessments.com/share_assignment/gl9lxwywif-0pqbt

Indeed Assessments provides skills tests that are not indicative of a license or certification, or continued development in any professional field.

Additional Information

I was the recipient of the Paul Harris Fellowship Award through Rotary International for assisting 673 Individuals and/or families with questions, concerns, and resources that were necessary to survive the Flint Water Crisis. I was nominated for this award by Jamie Gaskin, CEO of the United Way. This award is given out to individuals who have provided exceptional service to their community, and surrounding areas.



RESOLUTION NO.: 210429

PRESENTED: SEP 13 2021

ADOPTED: _____

BY THE COUNCIL:

**RESOLUTION AUTHORIZING THE CITY OF FLINT TO ENTER INTO AN
AGREEMENT FOR AUDITING SERVICES WITH REHMANN ROBSON FOR THE
FY2021 AUDIT**

On June 22, 2020, Flint City Council adopted resolution #200258 to enter into a three-year agreement with Robson Rehmann for a total contract amount of \$701,000.00 to conduct the FY2020 (Year #1 \$225,000), FY2021 (Year #2 \$233,500), and FY2022 (Year #3 \$242,500) audits for a total contract amount of \$701,000.00; and

WHEREAS, on November 23, 2020, Flint City Council adopted resolution #200479 authorizing an additional \$7,500.00 in spending to cover single audit services for a total aggregate three-year amount of \$708,500; and

WHEREAS, Robson Rehmann has submitted an engagement letter to perform the City of Flint annual FY2021 audit for an amount of \$236,000.00. This amount represents an increase of \$2,500.00 to present the City's financial statement in conformity with the Government Financial Officers Association criteria, plus out-of-pocket expenses. Funding will come from City Council Professional Services account #101-101.100-801.000.

IT IS RESOLVED, that the appropriate City Officials are authorized to do all things necessary to engage the services of Rehmann Robson for FY2021 auditing services for the amount of \$236,000.00, for a total contract price of \$711,000.00, plus out-of-pocket expenses.

APPROVED AS TO FORM:

APPROVED AS TO FINANCE:

Angela Wheeler
Angela Wheeler (Sep 10, 2021 10:37 EDT)
Angela Wheeler, Chief Legal Officer

Robert J. F. Widigan
Robert J.F. Widigan, Interim Chief Finance Officer

CITY COUNCIL:

Kate Fields, Council President

July 16, 2021

Kate Fields
Council President
City of Flint
1101 South Saginaw Street
Flint, MI 48502

Enclosed is the engagement letter for the *City of Flint* for the year then ended June 30, 2021. *Government Auditing Standards* (as amended) require that we communicate, during the planning stage of an audit, certain information to the City Council. This information includes the auditors' responsibilities in a financial statement audit, including our responsibilities for testing and reporting on compliance with laws and regulations and internal control over financial reporting. The engagement letter includes the items which must be communicated to the City Council.

Therefore, please make copies of the attached engagement letter and forward the copies to the City Council.

Please sign and return the enclosed copy of the attached engagement letter to us at your earliest convenience.

Sincerely,

Rehmann Lohman LLC

Enclosures

July 16, 2021

City Council
City of Flint
1101 South Saginaw Street
Flint, MI 48502

We are pleased to confirm our understanding of the services we are to provide the **City of Flint** (the "City") for the year then ended June 30, 2021.

We will audit the financial statements of the governmental activities, the business-type activities, the aggregate discretely presented component units, each major fund, and the aggregate remaining fund information, including the related notes to the financial statements, which collectively comprise the basic financial statements of the City as of and for the year then ended June 30, 2021. Accounting standards generally accepted in the United States of America provide for certain required supplementary information (RSI), such as management's discussion and analysis (MD&A), to supplement the City's basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. As part of our engagement, we will apply certain limited procedures to the City's RSI in accordance with auditing standards generally accepted in the United States of America. These limited procedures will consist of inquiries of management regarding the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We will not express an opinion nor provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance. The following RSI is required by generally accepted accounting principles and will be subjected to certain limited procedures, but will not be audited:

1. Management's Discussion and Analysis
2. Schedules Required by GASB 68 – Pension Plan
3. Schedules Required by GASB 75 – OPEB Plan

We have also been engaged to report on supplementary information other than RSI, such as combining and individual fund financial statements, that accompanies the City's basic financial statements. We will subject the following supplementary information to the auditing procedures applied in our audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves and other additional procedures, in accordance with auditing standards generally accepted in the United States of America and will provide an opinion on it in relation to the financial statements as a whole:

1. Combining and individual fund financial statements
2. Schedule of expenditures of federal awards

Rehmann is an independent member of Nexia International.



The following other information accompanying the basic financial statements will not be subjected to the auditing procedures applied in our audit of the financial statements, and for which our auditor's report will disclaim an opinion:

1. Introductory section of the Comprehensive Annual Financial Report
2. Statistical section of the Comprehensive Annual Financial Report

Audit Objectives

The objective of our audit is the expression of opinions as to whether the City's financial statements are fairly presented, in all material respects, in conformity with accounting principles generally accepted in the United States of America and to report on the fairness of the supplementary information referred to in the second paragraph when considered in relation to the basic financial statements taken as a whole. Our audit of the City's financial statements does not relieve management or those charged with governance of their responsibilities. The objective also includes reporting on -

- Internal control related to the financial statements and compliance with laws, regulations, and the provisions of contracts or grant agreements, noncompliance with which could have a material effect on the financial statements in accordance with *Government Auditing Standards*.
- Internal control related to major programs and an opinion (or disclaimer of opinion) on compliance with laws, regulations, and the provisions of contracts or grant agreements that could have a direct and material effect on each major program in accordance with the Single Audit Act Amendments of 1996 and Title 2 U.S. Code of Federal Regulations (CFR) Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance)

The reports on internal control and compliance will each include a paragraph that states that the purpose of the report is solely to describe (1) the scope of testing of internal control over financial reporting and compliance and the result of that testing and not to provide an opinion on the effectiveness of internal control over financial reporting or on compliance, (2) the scope of testing internal control over compliance for major programs and major program compliance and the result of that testing and to provide an opinion on compliance but not to provide an opinion on the effectiveness of internal control over compliance, and (3) that the report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering internal control over financial reporting and compliance and with the Uniform Guidance in considering internal control over compliance and major program compliance. The paragraph will also state that the report is not suitable for any other purpose.

Our audit will be conducted in accordance with auditing standards generally accepted in the United States of America; the standards for financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; the Single Audit Act Amendments of 1996; and the provisions of the Uniform Guidance, and will include tests of accounting records, a determination of major program(s) in accordance with the Uniform Guidance, and other procedures we consider necessary to enable us to express such opinions and to render the required reports. We will issue a written report upon completion of our audit of the City's financial statements. Our report will be addressed to the [Governing Body] of the City. We cannot provide assurance that unmodified opinions will be expressed. Circumstances may arise in which it is necessary for us to modify our opinions or add emphasis-of-matter or other-matter paragraphs to our audit report. If our opinions on the financial statements or the Single Audit compliance opinion are other than unmodified, we will discuss the reasons with management in advance. If circumstances occur and come to our attention related to the condition of the City's records, the availability of sufficient, appropriate audit

evidence, or the existence of a significant risk of material misstatement of the financial statements caused by error, fraudulent financial reporting, or misappropriation of assets, or we become aware that information provided by the City is incorrect, incomplete, inconsistent, misleading, contains material omissions, or is otherwise unsatisfactory which in our professional judgment prevent us from completing the audit or forming an opinion on the financial statements, we retain the right to take any course of action permitted by professional standards, including declining to express an opinion or issue a report, or withdrawing from the engagement.

As we have discussed, we intend to make reference to the audits of Hurley Medical Center, Downtown Development Authority and Flint Area Enterprise Community, performed by other auditors.

The concept of materiality is inherent in the work of an independent auditor. An independent auditor places greater emphasis on those items that have, on a relative basis, more importance to the financial statements and greater possibilities of material error than with those items of lesser importance or those in which the possibility of material error is remote. For this purpose, materiality has been defined as "the magnitude of an omission or misstatement of accounting and financial reporting information that, in light of surrounding circumstances, makes it probable that the judgment of a reasonable person relying on the information would have been changed or influenced by the omission or misstatement."

Audit Procedures and Our Responsibilities—General

An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements; therefore, our audit will involve judgment about the number of transactions to be examined and the areas to be tested. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements. We will plan and perform the audit to obtain reasonable rather than absolute assurance about whether the financial statements are free of material misstatement, whether from (1) errors, (2) fraudulent financial reporting, (3) misappropriation of assets, or (4) violations of laws or governmental regulations that are attributable to the City or to acts by management or employees acting on behalf of the City. Because the determination of abuse is subjective, *Government Auditing Standards* do not expect auditors to provide reasonable assurance of detecting abuse.

Because of the inherent limitations of an audit, combined with the inherent limitations of internal control, and because we will not perform a detailed examination of all transactions, there is a risk that material misstatements may exist and not be detected by us, even though the audit is properly planned and performed in accordance with auditing standards generally accepted in the United States of America and *Government Auditing Standards*. In addition, an audit is not designed to detect immaterial misstatements or violations of laws or governmental regulations that do not have a direct and material effect on the financial statements or major programs. However, we will inform the appropriate level of management of any material errors, any fraudulent financial reporting, or misappropriation of assets that comes to our attention including such matters related to components. We will also inform the appropriate level of management of any violations of laws or governmental regulations that come to our attention, including those related to components, unless clearly inconsequential, and of any material abuse that comes to our attention. We will include such matters in the reports required for a Single Audit. Our responsibility as auditors is limited to the period covered by our audit and does not extend to any later periods for which we are not engaged as auditors.

Our procedures will include tests of documentary evidence supporting the transactions recorded in the accounts, and may include tests of the physical existence of inventories, and direct confirmation of receivables and certain other assets and liabilities by correspondence with selected individuals, creditors, and

financial institutions. We may request written representations from the City's attorneys as part of the engagement, and they may bill the City for responding to this inquiry. At the conclusion of our audit, we will also require certain written representations from management about the financial statements and related matters.

We have advised the City of the limitations of our audit regarding the detection of fraud and the possible effect on the financial statements (including misappropriation of cash or other assets) notwithstanding our obligations per the Single Audit Amendments of 1996 and the Uniform Guidance. We can, as a separate engagement, perform extended procedures specifically designed to potentially detect defalcations. Management acknowledges that the City has not engaged us to do so and does not wish us to do so at this time.

Management is responsible for the basic financial statements, schedule of expenditures of federal awards, and all accompanying information as well as all representations contained therein. Management is also responsible for identifying government award programs and understanding and complying with the compliance requirements, and for preparation of the schedule of expenditures of federal awards in accordance with the requirements of the Uniform Guidance. As part of the audit, we will assist with preparation of the City's financial statements, schedule of expenditures of federal awards, and related notes, as well as the data collection form. Management will be required to acknowledge in the management representation letter our assistance with preparation of the financial statements, the schedule of expenditures of federal awards, and the data collection form, and that management has reviewed and approved the financial statements, schedule of expenditures of federal awards, and related notes prior to their issuance and have accepted responsibility for them. Management agrees to assume all management responsibilities for any nonaudit services we provide; oversee the services by designating an individual, preferably from senior management, who possesses suitable skill, knowledge, and/or experience; evaluate the adequacy and results of these or other nonattest services performed by our Firm; and understand and accept responsibility for the results of such services.

We, in our sole professional judgment, reserve the right to refuse to perform any procedure or take any action that could be construed as assuming management functions or responsibilities.

Audit Procedures - Internal Controls

Our audit will include obtaining an understanding of the City and its business environment, including internal control over financial reporting sufficient to assess the risks of material misstatement of the financial statements and to design the nature, timing, and extent of further audit procedures that are appropriate in the circumstances. Tests of controls may be performed to test the effectiveness of certain controls that we consider relevant to preventing and detecting errors and fraud that are material to the financial statements and to preventing and detecting misstatements resulting from illegal acts and other noncompliance matters that have a direct and material effect on the financial statements. Our tests, if performed, will be less in scope than would be necessary to render an opinion on internal control and, accordingly, no opinion will be expressed in our report on internal control issued pursuant to *Government Auditing Standards*.

As required by the Uniform Guidance, we will perform tests of controls over compliance to evaluate the effectiveness of the design and operation of controls that we consider relevant to preventing or detecting material noncompliance with compliance requirements applicable to each major federal award program. However, our tests will be less in scope than would be necessary to render an opinion on those controls and, accordingly, no opinion will be expressed in our report on internal control issued pursuant to the Uniform Guidance.

An audit is not designed to provide assurance on internal control, or to identify significant deficiencies or material weaknesses in internal control, or to express an opinion on the effectiveness of internal control over financial reporting. Accordingly, we will express no such opinion. However, during the audit, we will communicate to the appropriate level of management and those charged with governance internal control related matters that are required to be communicated under professional standards, *Government Auditing Standards* and the Uniform Guidance including such matters related to components]. These matters refer to significant matters related to the financial statement audit that are, in our professional judgment, relevant to the responsibilities of those charged with governance in overseeing the City's financial reporting process. When applicable, we are responsible for communicating certain matters required by laws or regulations, or by additional requirements that may be applicable to this engagement. Auditing standards generally accepted in the United States of America do not require the independent auditor to design or perform procedures for the purpose of identifying other matters to communicate with those charged with governance. Management is responsible for assessing the implications of and correcting any internal control-related matters brought to the City's attention by us.

Audit Procedures - Compliance

As part of obtaining reasonable assurance about whether the financial statements are free of material misstatement, we will perform tests of the City's compliance with provisions of applicable laws and regulations and the provisions of contracts and agreements, including grant agreements. However, the objective of those procedures will not be to provide an opinion on overall compliance and we will not express such an opinion in our report on compliance issued pursuant to *Government Auditing Standards*.

The Uniform Guidance requires that we also plan and perform the audit to obtain reasonable assurance about whether the auditee has complied with applicable laws and regulations and the provisions of contracts and grant agreements applicable to major programs. Our procedures will consist of tests of transactions and other applicable procedures described in the *OMB Compliance Supplement* for the types of compliance requirements that could have a direct and material effect on each of the City's major programs. The purpose of those procedures will be to express an opinion on the City's compliance with requirements applicable to each of its major programs in our report on compliance issued pursuant to the Uniform Guidance.

Management Responsibilities

Management is solely and completely responsible for designing, implementing, and maintaining effective internal controls relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error, and internal control over compliance, and for ongoing monitoring activities, to help ensure that appropriate goals and objectives are met and that there is reasonable assurance that government programs are administered in compliance with compliance requirements. Management is also responsible for the selection and application of accounting principles including those related to components; for the preparation and fair presentation of the financial statements in conformity with an acceptable financial reporting framework, and for compliance with applicable laws and regulations and the provisions of contracts and grant agreements. Management is responsible for determining, and has determined, that the applicable and appropriate financial reporting framework to be used in the preparation of the City's financial statements is accounting principles generally accepted in the United States of America (GAAP).

Management is also solely and completely responsible for making all financial records and related information available to us, and for ensuring that financial information is reliable and properly recorded. Management is also responsible for providing us with (1) access to all information of which management is

aware that is relevant to the preparation and fair presentation of the financial statements, including identification of all related parties and all related-party relationships and transactions, (2) additional information that we may request from management for the purpose of the audit, and (3) unrestricted access to persons within the City from whom we determine it necessary to obtain audit evidence.

For the purposes of this letter, related parties mean members of the governing body; board members; administrative officials; immediate families of administrative officials, board members, and members of the governing body; and any companies affiliated with or owned by such individuals.

Management's responsibilities also include identifying significant vendor relationships in which the vendor has the responsibility for program compliance and for the accuracy and completeness of that information. Management's responsibilities include adjusting the financial statements to correct material misstatements and for confirming to us in the written representation letter that the effects of any uncorrected misstatements aggregated by us during the current engagement and pertaining to the latest period presented are immaterial, both individually and in the aggregate, to the financial statements taken as a whole.

We understand that management will provide us with such information required for our audit, including a reasonably adjusted trial balance, and that management is responsible for the accuracy and completeness of that information. Assistance provided by our Firm in the preparation of a reasonably adjusted trial balance is considered an additional billable service.

We will advise management and the City Council about appropriate accounting principles and their application and may assist in the preparation of the City's financial statements, but the ultimate responsibility for the financial statements remains with management with oversight by those charged with governance. As part of our engagement, we may propose standard, adjusting, or correcting journal entries to the City's financial statements. Management is responsible for reviewing the entries, understanding the nature of any proposed entries and the impact they have on the financial statements, and the implications of such entries on the City's internal control over financial reporting. Further, the City is responsible for designating a qualified management-level individual to be responsible and accountable for overseeing these nonattest services.

Management is responsible for the design and implementation of programs and controls to prevent and detect fraud, and for informing us about all known or suspected fraud affecting the government involving (1) management, (2) employees who have significant roles in internal control, and (3) others where the fraud could have a material effect on the financial statements. Management's responsibilities include informing us of its knowledge of any allegations of fraud, suspected fraud or illegal acts affecting the government received in communications from employees, former employees, grantors, regulators, or others. In addition, management is responsible for identifying and ensuring that the City complies with applicable laws, regulations, contracts, agreements, and grants. Additionally, as required by the Uniform Guidance, it is management's responsibility to follow up and take corrective action on reported audit findings and to prepare a summary schedule of prior audit findings and a corrective action plan. The summary schedule of prior audit findings should be available for our review at the conclusion of fieldwork.

Management is responsible for preparation of the schedule of expenditures of federal awards in conformity with the Uniform Guidance. Management agrees to include our report on the schedule of expenditures of federal awards in any document that contains and indicates that we reported on the schedule of expenditures of federal awards. Management also agrees to include the audited financial statements with any presentation of the schedule of expenditures of federal awards that includes our report thereon OR make the audited financial statements readily available to intended users of the schedule of expenditures of federal awards no

later than the date the schedule of expenditures of federal awards is issued with our report thereon. Management's responsibilities include acknowledging to us in the representation letter that (a) management is responsible for presentation of the schedule of expenditures of federal awards in accordance with the Uniform Guidance; (b) that management believes the schedule of expenditures of federal awards, including its form and content, is fairly presented in accordance with the Uniform Guidance; (c) that the methods of measurement or presentation have not changed from those used in the prior period (or, if they have changed, the reasons for such changes); and (d) management has disclosed to us any significant assumptions or interpretations underlying the measurement or presentation of the schedule of expenditures of federal awards.

Management is also responsible for the preparation of the other supplementary information, which we have been engaged to report on, that is presented fairly in relation to the basic financial statements. Management agrees to include our report on the supplementary information in any document that contains and indicates that we have reported on the supplementary information. Management also agrees to include the audited financial statements with any presentation of the supplementary information that includes our report thereon. Management's responsibilities include acknowledging to us in the representation letter that (a) management is responsible for presentation of the supplementary information in accordance with GAAP; (b) that management believes the supplementary information, including its form and content, is fairly presented in accordance with GAAP; (c) that the methods of measurement or presentation have not changed from those used in the prior period (or, if they have changed, the reasons for such changes); and (d) management has disclosed to us any significant assumptions or interpretations underlying the measurement or presentation of the supplementary information.

Management is responsible for establishing and maintaining a process for tracking the status of audit findings and recommendations. Management is also responsible for identifying for us previous financial audits, attestation engagements, performance audits, or other studies related to the objectives discussed in the Audit Objectives section of this letter. This responsibility includes relaying to us corrective actions taken to address significant findings and recommendations resulting from those audits, attestation engagements, performance audits, or studies. Management is also responsible for providing management's views on our current findings, conclusions, and recommendations, as well as management's planned corrective actions, for the report, and for the timing and format for providing that information.

During the course of our engagement, we will request information and explanations from management regarding the City's operations, internal control over financial reporting, various matters concerning fraud risk, future plans, specific transactions, and accounting systems and procedures. At the conclusion of our engagement, we will require, as a precondition to the issuance of our report, that management provide certain representations in a written management representation letter.

We are not hosts for any City information. Management is expected to retain all financial and non-financial information that management uploads to a portal (document sharing site), and management is responsible for downloading and retaining in a timely manner anything we upload. Portals are meant as a method only of transferring and sharing data, and are not intended for the storage of City information, which may be deleted at any time. Management is expected to maintain control over the City's accounting systems to include the licensing of applications and the hosting of said applications and data. We do not provide electronic security or back-up services for any of the City's data or records. Giving us access to the City's accounting system does not make us hosts of information contained within.

Fees

The estimated fee for the audit of the financial statements will be charged at rates commensurate with the value of our professional services rendered and are not expected to exceed \$236,000 (which includes an additional \$2,500 to present the City's financial statements in conformity with the Government Finance Officers Association (GFOA) criteria, plus out-of-pocket costs such as mileage, food and hotels for the staff assigned to the City's audit while they are on-site at the City performing the audit. Out-of-pocket expenses are not expected to exceed \$10,000. The above fee includes a single audit with up to three major programs. If additional major programs are required to be tested in accordance with the Uniform Guidance, our fee will be increased by \$7,500 for each major program in excess of three. Rehmann will notify City Council in writing as soon as practical after identification of the need for testing of additional major programs in accordance with the Uniform Guidance and in advance of incurring these fees. Since advanced preparation is essential to an efficient audit process, (as trying to audit a moving target is inherently difficult and costly), if the City does not have the necessary staff (either City employees or supplemental employees provided by outside contractors) to appropriately prepare for the audit there will be an additional fee of \$41,200. Rehmann will notify City Council in writing explaining the additional fee as soon as practical after the identification of the problem and in advance of incurring the aforementioned fees. This additional fee is separate from any change orders that the City may approve for our assistance in preparing a reasonably adjusted trial balance.

If we are requested to perform any tasks outside the normal scope of an audit, we will discuss the related circumstances with City Council Finance Committee chair and arrive at a fee estimate for the additional requested assistance, at which time a change order will be prepared for Council's approval prior to Rehmann incurring additional cost. In these circumstances, we will issue a change order form (an attached example is provided) to document the agreement between the City and Rehmann.

Our invoices for these fees will be rendered each month as work progresses and are payable within 14 days of presentation.

The following items will be required of the City:

1. City finance staff will meet with Rehmann by September 3, 2021 to develop a mutually agreed upon milestone timeline for the entire audit process that will allow for the issuance of the City's reports no later than December 17, 2021.
2. Once this timeline is set, if the City is not able to meet certain milestones in the agreed upon timeline and the audit cannot be issued by December 17, 2021, then the audit will not be completed and issued until subsequent to December 31, 2021 (i.e., it is understood that Rehmann staff will be unavailable during the holidays (December 18-31)).
3. The City will provide reasonably adjusted trial balances, schedule of expenditures of federal awards, general ledger detail and substantially all reconciled supporting documentation one week before the agreed upon fieldwork date.
4. The City staff (and outside contractors, if any) will be responsive to all audit requests and provide necessary information in a timely manner.

This fee is based on the assumption that unexpected circumstances will not be encountered during the audit. This fee is based on anticipated cooperation from the City's personnel, continued readiness and proactive assistance on their part in providing us with complete and accurate information (whether financial or nonfinancial in nature) considered necessary by us to form an appropriate opinion, and the assumption that unexpected circumstances will not be encountered during the audit. Such circumstances include, but are not necessarily limited to significant addition or deletion of funds, component units or related entities and first-

time application of significant new professional accounting or auditing pronouncements. In addition, the fee above assumes management will analyze and maintain appropriate support for significant valuation assertions embodied in the financial statements including the valuation of investment securities, the actuarial methods and assumptions used to calculate the net pension and other postemployment benefits liabilities, impairment of capital assets including those held for sale, the valuation of inventories and land held for resale, allowances for uncollectible receivables, and the estimate for incurred-but-not-reported self insurance claims. If significant additional time is necessary, we will discuss the related circumstances with management and arrive at a new fee estimate, which may or may not occur before we incur the additional time. In these circumstances, we may also issue a change order form (an attached example is provided.)

Engagement Administration, and Other

Management shall discuss any independence matters with Rehmann that, in management's judgment, could bear upon Rehmann's independence.

At the conclusion of the engagement, we will complete the appropriate sections of the Data Collection Form that summarizes our audit findings. It is management's responsibility to submit the reporting package (including financial statements, schedule of expenditures of federal awards, summary schedule of prior audit findings, auditors' reports, and a corrective action plan) along with the Data Collection Form to the federal audit clearinghouse. We will coordinate with management the electronic submission and certification. If applicable, we will provide copies of our reports for the City to include with the reporting package the City will submit to pass-through entities. The Data Collection Form and the reporting package must be submitted within the earlier of 30 days after receipt of the auditors' reports or nine months after the end of the audit period, unless a longer period is agreed to in advance by the cognizant or oversight agency for audits.

The audit documentation for this engagement is the property of Rehmann and constitutes confidential information. However, pursuant to authority given by law or regulation, we may be requested to make certain audit documentation available to a cognizant or grantor agency for audit or its designee, a federal agency providing direct or indirect funding, or the U.S. Government Accountability Office for purposes of a quality review of the audit, to resolve audit findings, or to carry out oversight responsibilities. We will notify management of any such request. If requested, access to such audit documentation will be provided under the supervision of Rehmann personnel. Furthermore, upon request, we may provide copies of selected audit documentation to the aforementioned parties. These parties may intend, or decide, to distribute the copies or information contained therein to others, including other governmental agencies.

The audit documentation for this engagement will be retained for a minimum of five years after the report release date or for any additional period requested by the cognizant agency, oversight agency for audit, or pass-through entity. If we are aware that a federal awarding agency, pass-through entity, or auditee is contesting an audit finding, we will contact the parties contesting the audit finding for guidance prior to destroying the audit documentation.

Our audit engagement and our responsibility as auditors ends on delivery of our audit report to the City Council at the Regular or Special Board meeting. Any follow-up services that might be required will be part of a separate, new engagement. The terms and conditions of that new engagement will be governed by a new, specific engagement letter for that service.

Government Auditing Standards require that we provide the City with a copy of our most recent external peer review report and any subsequent peer review reports received during the period of the contract. Our 2020 peer review report accompanies this letter.

This engagement letter, including the attached Rehmann Audit Engagement Letter Terms and Conditions which are incorporated herein by reference as if set forth within the body of this engagement letter in their entirety, reflect the entire understanding between us relating to the audit services covered by this agreement. This agreement may not be amended or varied except by a written document signed by both parties. It replaces and supersedes any previous proposals, correspondence, and understandings, whether written or oral. The agreements of the City and Rehmann contained in this document shall survive the completion or termination of this engagement. If any term hereof is found unenforceable or invalid, this shall not affect the other terms hereof, all of which shall continue in effect as if the stricken term had not been included.

We appreciate the opportunity to be of service to the City and believe the arrangements outlined above and in the attached Rehmann Audit Engagement Letter Terms and Conditions accurately summarize the significant terms of our engagement. If you have any questions, please let us know. If you agree with the terms of our engagement, please sign the enclosed copy of this document and return it to us.

Handwritten signature of Doug Deeter in black ink.

Doug Deeter, CPA – Principal
Executive responsible for supervising the
engagement and signing our report
Stephen Blann, CPA, CGFM - Principal

ACKNOWLEDGED AND ACCEPTED:

This letter correctly sets forth the understanding of *City of Flint*.

Officer Signature

Printed Name

Title

Date

Rehmann Audit Engagement Letter Terms and Conditions

ADDITIONAL SERVICES - The City may request that we perform additional services not addressed in this engagement letter. If this occurs, we will communicate with management regarding the scope of the additional services and the estimated separate fees. We also may issue a change order form (an attached example is provided), or a separate engagement letter covering the additional services. In the absence of any other written communication from us documenting such additional services, our attest services will continue to be governed by the terms of this engagement letter.

CODE OF CONDUCT - Management is responsible for identifying any violations by employees of the City's code of conduct.

CHANGES IN STANDARDS, LAWS AND REGULATIONS - We perform services for the City based on present professional standards, laws and regulations. While we may on occasion be able to communicate with management with respect to changes in professional standards, laws and regulations, as a general principle we cannot undertake with clients to advise them of every change that may occur. The City can always obtain reassurance in this regard by contacting us for an updated review of the City's situation.

MANAGEMENT'S REPRESENTATIONS - The procedures we will perform in our engagement and the conclusions we reach as a basis for our report will be heavily influenced by the written and oral representations that we receive from management. Accordingly, false, misleading, incomplete, inconsistent, or omitted representations could cause us to expend unnecessary efforts or could cause material error or a fraud to go undetected by our procedures. In view of the foregoing, the City agrees that we shall not be responsible for any material misstatements in the City's financial statements that we may fail to detect as a result of false, inaccurate, incomplete, inconsistent, or misleading representations that are made to us by management. In addition, the City further agrees to indemnify and hold us harmless for any liability and all reasonable costs, including legal fees, that we may incur as a result of the services performed under this engagement in the event there are false or misleading representations made to us by any member of the City's management.

CLIENT ASSISTANCE - We understand that the City's employees will prepare all cash, accounts receivable, and other confirmations we request and will locate and refile any documents selected by us for testing. In addition, management will provide us with copies of all minutes and other documents that we believe may have a bearing on our evaluation of the City's financial affairs.

WORK SPACE - The City shall provide reasonable work space for Rehmann personnel at audit work sites, as well as occasional clerical support services.

TIMELY DECISIONS AND APPROVALS - The City understands that Rehmann's performance is dependent on the City's timely and effective satisfaction of its own activities and responsibilities in connection with this engagement, as well as timely decisions and approvals by City personnel.

ACCURACY AND COMPLETENESS OF INFORMATION - Management agrees to ensure that all information provided to us is accurate, complete, and consistent in all material respects, contains no material omissions and is updated on a prompt and continuous basis. In addition, management will also be responsible for obtaining all third-party consents, if any, required to enable Rehmann to access and use any third-party products necessary to our performance.

EMAIL - The City acknowledges that (a) Rehmann, the City and others, if any, participating in this engagement may correspond or convey documentation via Internet e-mail unless the City expressly requests otherwise, (b) no party has control over the performance, reliability, availability, or security of Internet e-mail, and (c) Rehmann shall not be liable for any loss, damage, expense, harm or inconvenience resulting from the loss, delay, interception, corruption, or alteration of any Internet e-mail due to any reason beyond Rehmann's reasonable control.

OFFERS OF EMPLOYMENT - Professional standards require us to be independent with respect to the City in the performance of our services. Any discussions that management has with personnel of our Firm regarding employment could pose a threat to our independence. Therefore, we

request that management inform us prior to any such discussions so that we can implement appropriate safeguards to maintain our independence.

Neither party shall, during the term of this engagement letter and for one (1) year after its termination, solicit for hire as an employee, consultant or otherwise any of the other party's personnel without such other party's express written consent. If the City desires to offer employment to a Rehmann associate and the associate is hired in any capacity by the City, a market-driven compensation placement fee may apply.

ADDITIONAL FEES AND BILLING POLICIES - It must be understood that the nature of our engagement requires us to exercise our independent professional judgment with respect to various auditing, accounting and related issues. In reaching our conclusions, we must retain the right to judge the nature and scope of the work required in order to conform to professional standards, as well as the work we deem necessary to enable us to reach the conclusions and form the opinions required of us. If our judgment as to the scope of the work required causes us to reassess our estimate of fees for this engagement, we will so advise the City. We reserve the right to refrain from performing additional work (and thereby incurring additional time charges) unless and until the City has confirmed its understanding of, and agreement to, any additional estimated charges.

Our fee estimate is based upon our discussions with management, in which management has disclosed no unusual problems or issues which would require us to conduct an audit of unusual scope or otherwise expend time and effort in excess of that normally anticipated in an engagement of this type. The estimate also assumes that we will have the full cooperation of City personnel, as required, and that there is a reasonable continuity of City personnel familiar with the matters to which our engagement relates. In addition, our fee is based on the experience level of our personnel, at their respective standard hourly rates, performing certain audit procedures at certain timeframes. If we are caused to vary from that planning formula, additional fees will need to be charged to allow for more experienced personnel performing the work, reallocation of our client priority, overtime, etc. Further, management will provide us with the schedules and records that we request (which ordinarily are detailed in a request list in advance of our fieldwork) and that all such schedules and records will be provided to us timely in accordance with the scheduled fieldwork dates, to be mutually agreed upon. If the requested schedules and records are not provided to us in accordance with the scheduled dates and we are unable to continue our work, we will attempt to resume our work as soon as the schedules and records are provided to us and our professionals assigned to the engagement again become available.

As a result of well-publicized events, global economic convergence, and the continued evolution of the accounting profession, accounting and auditing standard setters and regulators are continually evaluating the need for changes that may affect the City. Such changes may result in changes in financial reporting and expanding the nature, timing and scope of activities we are required to perform to provide the services discussed in this letter. Proposed changes and shortened deadlines could result in a reduction of the level of assistance and preparedness the City is able to provide. We expect that our clients may continue to look to us to assist them with these changes. To the extent any changes require us to increase the time required to provide the services described in this letter or to complete new tasks required by such changes, we reserve the right to adjust our fees appropriately. We will endeavor to advise the City of anticipated changes to our fees on a timely basis.

In accordance with our Firm policies, work may be suspended if the City's account becomes 30 days or more overdue and will not be resumed until the account is paid in full or we have a definitive payment agreement approved by our Firm administrator in Saginaw, Michigan. If we elect to terminate our services for nonpayment, our engagement will be deemed to have been completed even if we have not issued our report. The City will be obligated to compensate us for all time expended and to reimburse us for all out-of-pocket expenditures through the date of termination.

Our terms and conditions impose a late charge of 1.5% per month, which is an annual percentage rate of 18%. Balances not paid within 30 days of the receipt of invoice are past due and a late charge of 1.5% will be applied to the entire past due amount.

Rehmann Audit Engagement Letter Terms and Conditions

Rehmann charges a 3% convenience fee on credit card payments.

CLAIMS - Because there are inherent difficulties in recalling or preserving information as the period after an engagement increases, the City agrees that, notwithstanding the statute of limitations of any particular State or U.S. Territory, any claim based on the audit engagement must be filed within 12 months after performance of our service, unless management has previously provided us with a written notice of a specific defect in our services that forms the basis of the claim.

TERMINATION OF SERVICES - We reserve the right to suspend or terminate services for reasonable cause such as failure to pay our invoices on a timely basis or failure to provide adequate information in response to our inquiries necessary for successful performance of our audit services. Our engagement will be deemed to be completed upon written notification of termination, even if we have not completed the audit and issued our signed auditors' report. The City is obligated to compensate us for the time expended to that point and to reimburse us for all out-of-pocket expenditures through the date of termination.

We acknowledge the City's right to terminate our services at any time, and the City acknowledges our right to withdraw at any time, including, but not limited to, for example, instances where, in our judgment, (a) the conditions in the first paragraph of the Audit Objectives section of this letter exist, (b) our independence has been impaired, (c) we can no longer rely on the integrity of management, (d) management fails to reasonably support our efforts to perform the engagement in accordance with what we believe is necessary to comply with professional standards, or (e) a lack of professionalism exhibited by management appears to demonstrate a lack of respect for our personnel such as that evidenced in inappropriate or threatening language/emails, subject in either case to our right to payment for charges incurred to the date of termination or our resignation.

In the event that we determine to resign, and the City seeks damages allegedly resulting from such resignation, our maximum liability to the City in the event we are held liable because of such resignation shall be limited to the fees actually paid to us for current year audit work performed up to the date of resignation.

INITIAL ISSUANCE OF OUR AUDIT REPORT ON FINANCIAL STATEMENTS - If the City intends to publish or otherwise reproduce our audit report on the financial statements and/or make reference to our Firm name, such as for inclusion in an annual report (such as, for example, in a CAFR), prospectus, official statement, or similar disclosure document, including incorporation by reference thereto, the City agrees to provide us with a copy of the final reproduced document for our review and approval before it is distributed, circulated or submitted. Additional fees for issuance or inclusion of our audit report and/or any other reference to our Firm in such other document, will be based on our standard hourly rates.

With regard to electronic dissemination of audited financial statements, including financial statements published electronically on the City's Internet Web site, the City understands that electronic sites are a means to distribute information and, therefore, we are not required to read the information contained in these sites or to consider the consistency of other information in the electronic site with the original document.

SUBSEQUENT REPRODUCTION OF OUR AUDIT REPORT ON FINANCIAL STATEMENTS - If the City decides to include, publish or otherwise reproduce our audit report on the financial statements at a date subsequent to our original report issuance, such as for inclusion in a Preliminary or Official Statement, an exempt offering in connection with a sale of bonds or notes, or other securities, or in a similar exempt offering or other disclosure document such as a prospectus, official statement, etc. (hereinafter referred to as the "document"), our Firm is presumed not to be associated with such document, and we have no obligation to perform any procedures with respect to such document. In these circumstances, the City agrees to include in such document a statement that Rehmann has not been engaged to perform and has not performed, since the date of our audit report being reproduced, any procedures on the financial statements contained in such document or on any unaudited financial or other information contained in the document, or on the document itself. If, however, management or the City's agent (such as an underwriter, bond counsel, placement agent, financial advisor, broker-dealer, etc.) requests

our involvement, thereby causing us to be engaged to or otherwise prepare a written acknowledgement (sometimes referred to as a "consent" or "agree to include") letter prior to including our audit report in such a document, or requests or engages us to assist in preparing or reviewing financial or other information contained in such document, or participate in related oral due diligence meetings or offering discussions, our Firm then becomes associated with the document. In this event, in accordance with professional standards, we will be required to perform certain subsequent events-based or other limited procedures with respect to this or other unaudited information contained in the document shortly before the initial and any subsequent distribution, circulation, or submission. Fees for reissuance or inclusion of our audit report in such a document will be based on our standard hourly rates. If the City wishes to make reference in such a document to our Firm's role in connection with the purpose and dissemination of the document, the caption "Independent Auditors" may be used to title or label that section of the document. In accordance with professional standards, the caption "Experts" should not be used, nor should our Firm be referred to as "Experts" anywhere in the document.

INFORMAL ADVICE - As part of our engagement we may provide advice on operating, internal control over financial reporting and other matters that come to our attention. Informal advice is not considered to be a consulting service unless we have entered into a separate engagement.

THIRD PARTY PROCEEDINGS - As a result of our prior or future services to the City, we might be requested or subpoenaed to provide information or documents to management, a court, a trier of fact, or a third party in a legal, investigative, administrative, mediation, or arbitration or similar proceeding in which we are not a party. If this occurs, our efforts in complying with such requests will be billable to the City as a separate engagement. We shall be entitled to compensation for our time at our standard or special hourly rates and reasonable reimbursement for our expenses (including our legal fees) in complying with this request. For all such requests, we will observe the confidentiality requirements of our profession and will notify management promptly of the request. This paragraph will survive the termination of this agreement for any reason, and will be binding upon successors to the City.

PEER REVIEW - Our Firm, as well as other major accounting firms, participates in a "peer review" program covering our audit and accounting practices. This program requires that once every three years we subject our quality assurance practices to an examination by another accounting firm. As part of the process, the other firm will review a sample of our work. It is possible that the work we perform for the City may be selected by the other firm for their review. If it is, the other firm is bound by professional standards to keep all information confidential. If management objects to having the work we perform for the City reviewed by our peer reviewer, please notify us in writing.

PROMOTIONAL MATERIALS - The City consents to Rehmann's use of your City name and a factual description of the services to be performed by Rehmann under this agreement in Rehmann's advertising and promotional materials and other proposal opportunities.

MEDIATION - If any dispute arises among the parties hereto, the parties agree first to try in good faith to settle the dispute by mediation administered by the American Arbitration Association under its Rules for Professional Accounting and Related Services Disputes before resorting to binding arbitration or litigation. Costs of any mediation proceeding shall be shared equally by all parties.

GOVERNING LAW - This Agreement shall be governed by and construed in accordance with the laws of the State of Michigan, without regard to the principles of conflicts of law thereof.



CliftonLarsonAllen LLP
CLAconnect.com

REPORT ON THE FIRM'S SYSTEM OF QUALITY CONTROL

September 15, 2020

To the Principals of Rehmann Robson LLC
and the National Peer Review Committee

We have reviewed the system of quality control for the accounting and auditing practice of Rehmann Robson LLC (the Firm) applicable to engagements not subject to PCAOB permanent inspection in effect for the year ended March 31, 2020. Our peer review was conducted in accordance with the Standards for Performing and Reporting on Peer Reviews established by the Peer Review Board of the American Institute of Certified Public Accountants (Standards).

A summary of the nature, objectives, scope, limitations of, and the procedures performed in a System Review as described in the standards may be found at www.aicpa.org/prsummary. The summary also includes an explanation of how engagements identified as not performed or reported in conformity with applicable professional standards, if any, are evaluated by a peer reviewer to determine a peer review rating.

Firm's Responsibility

The Firm is responsible for designing a system of quality control and complying with it to provide the Firm with reasonable assurance of performing and reporting in conformity with applicable professional standards in all material respects. The Firm is also responsible for evaluating actions to promptly remediate engagements deemed as not performed or reported in conformity with professional standards, when appropriate, and for remediating weaknesses in its system of quality control, if any.

Peer Reviewer's Responsibility

Our responsibility is to express an opinion on the design of the system of quality control and the Firm's compliance therewith based on our review.

Required Selections and Considerations

Engagements selected for review included engagements performed under *Government Auditing Standards* (including compliance audits under the Single Audit Act), audits of employee benefit plans, an audit performed under the Federal Deposit Insurance Corporation Improvement Act (FDICIA), and an examination of a service organization (SOC 1 engagement).

As a part of our peer review, we considered reviews by regulatory entities as communicated by the Firm, if applicable, in determining the nature and extent of our procedures.

To the Principals of Rehmann Robson LLC
and the National Peer Review Committee
Page 2

Opinion

In our opinion, the system of quality control for the accounting and auditing practice of Rehmann Robson LLC applicable to engagements not subject to PCAOB permanent inspection in effect for the year ended March 31, 2020, has been suitably designed and complied with to provide the Firm with reasonable assurance of performing and reporting in conformity with applicable professional standards in all material respects. Firms can receive a rating of *pass*, *pass with deficiency(ies)*, or *fail*. Rehmann Robson LLC has received a peer review rating of *pass*.

A handwritten signature in black ink that reads "CliftonLarsonAllen LLP". The signature is written in a cursive, flowing style.

CliftonLarsonAllen LLP

Rehmann

EXAMPLE CHANGE ORDER

Client: **City of Flint** (the "City")

Date:

Project Description (and estimated completion date, if appropriate):

Estimated Additional Fees: \$_____

We believe it is our responsibility to exceed the City's expectations. This Change Order is being prepared because performance by us of the above project and/or additional service efforts was not anticipated in our original Agreement dated July 16, 2021. The estimated fees for the above project have been mutually agreed upon by the City and Rehmann. It is our goal to ensure that the City is never surprised by the price for any Rehmann service and, therefore, we have adopted the Change Order Policy. The estimated additional amount above is due and payable upon completion of the project described.

If management agrees with the above project description and the estimated fee amount, please authorize and date the Change Order below. A copy is enclosed for the City's records. Thank you for letting us serve the City.

Agreed to and accepted:

Officer Signature

Printed Name

Title

Date

City of Flint
439871



E-Billing Enrollment/Confirmation

Timely and easy-to-access invoices and statements will now be emailed to you. Please provide your contact information below to start taking advantage of electronic invoicing and statements.

Primary Billing Contact: _____

Billing Phone Number: _____

Email Address: _____

Comments:

If you are already taking advantage of e-Billing, we will confirm this information in our systems. Additionally, the billing contact will receive information on e-Payment options to simplify your accounts payable process.

RESOLUTION NO.: 210448PRESENTED: SEP 22 2021

ADOPTED: _____

PROPOSAL# 21-514

BY THE CITY ADMINISTRATOR:

RESOLUTION TO ACE SAGINAW PAVING COMPANY FOR ASPHALT PAVING MATERIALS

The City of Flint Department of Purchases & Supplies solicited bids for the City of Flint Department of Transportation and Water Service Center for asphalt paving materials in 2020.

Whereas, Ace Paving Saginaw, 115 S. Averill Ave. Flint, MI was the responsive bidder rewarded for the two (2) year proposal. Resolution #200375 was adopted to proceed into this contract on September 14, 2020. Ace Saginaw Paving Co. is also the sole local vendor for asphalt paving supplies.

Whereas, The Department of Public Works and Water Service Center is requesting to enter into year (2) of a two-year bid contract with Ace Saginaw Paving Company for asphalt paving materials for the City of Flint, to be taken out of the following accounts:

Account Number	Account Name	Amount
202-449.201-782.000	Asphalt	\$95,000.00
203-449.201-782.000		\$358,500.00
202-449.203-782.000		\$13,500.00
203-449.203-782.000		\$12,000.00
203-449.211-782.000		\$9,000.00
203-449.211-782.000		\$12,000.00
590-540.208-782.000		\$30,000.00
591-540.202-782.000		\$30,000.00
	FY22 GRAND TOTAL	\$560,000.00

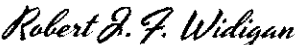
IT IS RESOLVED, that the appropriate city officials are to do all things necessary to continue the current contract with Ace Saginaw Paving, Company, Flint MI, for asphalt paving materials for FY22 (07/01/21-06/30/22) in an amount not-to-exceed \$560,000.00.

APPROVED AS TO FORM:


Angela Wheeler (Sep 15, 2021 13:25 EDT)

Angela Wheeler, Chief Legal Officer

APPROVED AS TO FINANCE:


Robert J. F. Widigan

Robert Widigan, Interim Chief Financial Officer

FOR THE CITY OF FLINT:

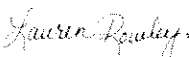

CLYDE D EDWARDS (Sep 15, 2021 13:31 EDT)

Clyde Edwards, City Administrator

APPROVED BY CITY COUNCIL:


Kate Fields, City Council President

APPROVED AS TO PURCHASING:


Lauren RowleyLauren Rowley
Purchasing Manager



CITY OF FLINT

STAFF REVIEW FORM

TODAY'S DATE: August 25, 2021

BID/PROPOSAL# 21-514

AGENDA ITEM TITLE: Asphalt

PREPARED BY Kathryn Neumann for John Daly, Director of Transportation

VENDOR NAME: Ace Asphalt

BACKGROUND/SUMMARY OF PROPOSED ACTION:

Asphalt used to repair hazardous conditions in the roadway, i.e. potholes, road cuts, water cuts

FINANCIAL IMPLICATIONS: There is money in the accounts listed below

BUDGETED EXPENDITURE? YES ☒ NO ☐ IF NO, PLEASE EXPLAIN:

Dept.	Name of Account	Account Number	Grant Code	Amount
Streets	Asphalt	202-449.201-782.000		\$95,000.00
		203-449.201-782.000		\$358,500.00
		202-449.203-782.000		\$13,500.00
		203-449.203-782.000		\$12,000.00
		202-449.211-782.000		\$ 9,000.00
		203-449.211-782.000		\$12,000.00
		FY22 GRAND TOTAL		\$500,000.00

PRE-ENCUMBERED? YES ☒ NO ☐ **REQUISITION NO:** 210004346

ACCOUNTING APPROVAL: Kirstie Troup
Kirstie Troup (Aug 25, 2021 12:59 EDT) **Date:** _____

WILL YOUR DEPARTMENT NEED A CONTRACT? YES ☐ NO ☒
(If yes, please indicate how many years for the contract) _____ YEARS

OTHER IMPLICATIONS (i.e., collective bargaining): None

STAFF RECOMMENDATION: (PLEASE SELECT): ☒ **APPROVED** ☐ **NOT APPROVED**

DEPARTMENT HEAD SIGNATURE: John H. Daly III
John H. Daly III (Aug 25, 2021 13:04 EDT)
(John Daly, Director of Transportation)



CITY OF FLINT

RESOLUTION STAFF REVIEW FORM

TODAY'S DATE: 09/14/21

BID/PROPOSAL#

AGENDA ITEM TITLE: Cold Patch

PREPARED BY *Bonnie Duncan, Utilities*

VENDOR NAME: Ace Saginaw Asphalt

BACKGROUND/SUMMARY OF PROPOSED ACTION:

Supply of CP6 cold patching materials for temporary repair of sewer and water repairs

FINANCIAL IMPLICATIONS: None

BUDGETED EXPENDITURE? YES ☐ **NO** ☐ **IF NO, PLEASE EXPLAIN:**

Dept.	Name of Account	Account Number	Grant Code	Amount
2496	Asphalt-Outside	590-540.208-782.000	N/A	30,000.00
2493	Asphalt-Outside	591-540.202-782.000	N/A	30,000.00
		FY21/22 GRAND TOTAL		60,000.00

PRE-ENCUMBERED? YES ☐ NO ☐ REQUISITION NO: 210004347

ACCOUNTING APPROVAL: Benjamin D. Dunn Date: 9-14-21



CITY OF FLINT

WILL YOUR DEPARTMENT NEED A CONTRACT? YES NO ☒

(If yes, please indicate how many years for the contract)

WHEN APPLICABLE, IF MORE THAN ONE (1) YEAR, PLEASE ESTIMATE TOTAL AMOUNT FOR EACH BUDGET YEAR: (This will depend on the term of the bid proposal)

BUDGET YEAR 1

BUDGET YEAR 2

BUDGET YEAR 3

OTHER IMPLICATIONS (i.e., collective bargaining):

STAFF RECOMMENDATION: (PLEASE SELECT): X **APPROVED** ☐ **NOT APPROVED**

DEPARTMENT HEAD SIGNATURE:


Michael J. Brown, Director of Public Works

CITY OF FLINT



PROPOSAL#21000514

RESOLUTION NO:

200375

PRESENTED:

SEP 14 2020

ADOPTED:

SEP 14 2020

BY THE CITY ADMINISTRATOR:

**RESOLUTION TO ACE SAGINAW PAVING COMPANY FOR
ASPHALT PAVING MATERIALS**

On June 10, 2019, the Proper City Officials approved to issue a purchase order to Ace Saginaw Asphalt, 115 S. Averill Ave., Flint, Michigan 48506, for Asphalt Paving Materials (Resolution #190221) in the amount of \$424,400.00 for the first of a two-year proposal.

Ace Saginaw Paving was the responsive bidder out of four solicitations. On July 21, 2020, an emergency purchase order (#20-002593) was issued in the amount of \$74,000.00 for asphalt paving materials to repair hazardous conditions in the roadway.

The Department of Public Work has requested the second year of asphalt paving materials through June 30, 2021 in the amount of \$283,788.00.

Funding for said services are available in the budget for FY21 (07/01/20 - 06/30/21):

Account Number	Account Name	Amount
202-449.201-782.000	Asphalt - Major	\$ 95,000.00
203-449.201-782.000	Asphalt - Locals	\$142,500.00
202-449.203-782.000	Asphalt - Major Winter	\$ 13,400.00
203-449.203-782.000	Asphalt - Local Winter	\$ 12,155.00
202-449.211-782.000	Asphalt - Water Major	\$ 8,829.00
203-449.211-782.000	Asphalt - Water Locals	\$ 11,904.00
FY21 (07/01/20 - 06/30/21) Total		\$ 283,788.00

IT IS RESOLVED, that the Proper City Officials, are hereby authorized to do all things necessary to enter into a contract with Ace Saginaw Asphalt for Asphalt Paving Materials for FY21 (07/01/20 - 06/30/21) in the amount of \$283,788.00 and for an aggregate total of \$782,188.00.

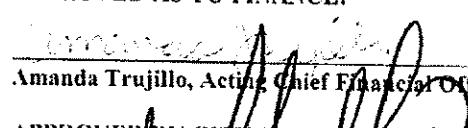
APPROVED AS TO FORM:


Angela Wheeler, Chief Legal Officer

FOR THE CITY OF FLINT:


Clyde Edwards, City Administrator

APPROVED AS TO FINANCE:


Amanda Trujillo, Acting Chief Financial Officer

APPROVED BY CITY COUNCIL:


Monica Galloway, City Council President

APPROVED AS TO PURCHASING:


Joyce A. McClane, Purchasing Manager



SEALED PROPOSALS RECEIVED IN THE DIVISION OF PURCHASES & SUPPLIES
For Asphalt Paving Materials
PROPOSAL #21000514

Company: Ace Saginaw Paving Co. – Flint, Michigan

Approximate Annual Quantities – Not Guaranteed
Furnish as requested for the period 7/1/20 – 6/30/22

Item #	Description	Unit Price	Extended Total
1	2,000 Tons - 1100T, 20AA - New	\$ 63.25 /ton	\$126,500.00
2	4,000 Tons - High Stability Top, 20AA - New	\$ 65.00 /ton	\$260,000.00
3	200 Gallons – New LTBC-2 Trackless tack	\$ 5.20 /ton	\$1,040.00
4	2,000 Tons - Cold Milling Asphalt	\$ 8.00 /ton	\$16,000.00
5	16,600 Tons - Credit for Stripped Material returned for recycling	\$ N/A /ton	\$ N/A
6	Standard Performance Cold Patch	\$ N/A /ton	\$ N/A
7	Permanent High Performance Cold patch (meeting or exceeding the attached specifications)	\$ 118.00 /ton	\$ N/A
<p>"Permanent High Performance Cold Patch with a Performance Guarantee". Proposed material must provide a written guarantee to adhere permanently to the repaired street area for the life of the repair or actual volumes used will be replaced at no charge. Written copy of said guarantee must be provided with proposal response. Cold patch material must allow for immediate traffic use after application without any mixing, heating, or tracking required. Proposed material must be guaranteed to adhere to concrete, steel and asphalt under all types of weather conditions. Material must remain pliable at temperatures from -15 F to +105 F.</p>			
Daily rent rate for equipment only:			
8	Rental per day/hour large 8 to 12 ton roller		\$121.00
9	Rental per day/hour 46.5 ton flowboy with operator		\$150.00
10	Rate per day/hour paver with operator		\$210.00
11	Rental per day/hour double train to dump in with operator		\$146.00
TOTALS			\$ N/A

Only the specifier has the responsibility and judgment for determining whether a proposed substitution is an "or equal or exceeding" specification. Mfg., model #, and supporting documentation of specifications for alternates must be provided.



PROPOSAL# 20000560

RESOLUTION NO.: 210449
PRESENTED: SEP 22 2021
ADOPTED: _____

BY THE CITY ADMINISTRATOR:

**RESOLUTION TO DUKE'S ROOT CONTROL FOR CHEMICAL ROOT CONTROL TREATMENT
SERVICES FOR CITY SEWER SYSTEMS.**

The Department of Purchases & Supplies solicited proposals in 2020 for the City of Flint Sewer Line Chemical Root Control Services as requested by the Department of Public Works, and;

Duke's Root Control, Inc., 1020 Hiawatha Blvd West, Syracuse, NY was the sole bidder for said services. The company was awarded the work, and was originally approved in adoption of resolution #2001620. The company agreed in writing to extend the bid pricing from bid # 20-0560 for the next two fiscal years, 2021-2022 and 2022-2023.

Funding for said services are budgeted and will come from the following account:

Account Number	Account Name	Amount
590-540.300-801.000	Capital Improvement	\$350,000.00
	FY21 GRAND TOTAL	\$350,000.00

IT IS RESOLVED, That the Appropriate City Officials are to do all things necessary to extend their contract with Duke's Root Control Inc. for Flint Sewer Line Chemical Root Control Services for FY 22 (07/01/21-06/30/22) in an amount not-to-exceed \$350,000.00.

APPROVED AS TO FORM:

Angela Wheeler
Angela Wheeler (Sep 13, 2021 13:19 EDT)
Angela Wheeler, Chief Legal Officer

APPROVED AS TO FINANCE:

Robert J. F. Widigan
Robert Widigan, Interim Chief Financial Officer

FOR THE CITY OF FLINT:

CLYDE D EDWARDS
CLYDE D EDWARDS (Sep 15, 2021 08:09 EDT)
Clyde Edwards, City Administrator

APPROVED BY CITY COUNCIL:

Kate Fields
Kate Fields, City Council President

APPROVED AS TO PURCHASING:

Lauren Rowley
Lauren Rowley, Purchasing Manager



CITY OF FLINT

RESOLUTION STAFF REVIEW FORM

TODAY'S DATE: 8/13/2021

BID/PROPOSAL# 20-560

AGENDA ITEM TITLE: Chemical Root Control

PREPARED BY: Cheri Priest, WSC Administrative Manager

VENDOR NAME: Dukes Root Control

BACKGROUND/SUMMARY OF PROPOSED ACTION:

The Sewer Department is requesting Chemical Root Control Treatment services for the City sewer systems, and that we be allowed to extend this contract as the vendor has agreed in writing to honor pricing from this bid proposal for FY 21/22 and FY 22/23. This type of work can only be performed when the weather is warmer, they are unable to provide service during the winter months. This vendor is also located out of state and requires notice for deployment of their staff and equipment.

FINANCIAL IMPLICATIONS: None

BUDGETED EXPENDITURE? YES ☒ NO ☐ IF NO, PLEASE EXPLAIN:

Dept.	Name of Account	Account Number	Grant Code	Amount
2496	Capital Improvement	590-540.300-801.000	N/A	350,000.00
		FY22 GRAND TOTAL		350,000.00

PRE-ENCUMBERED? YES ☒ NO ☒ REQUISITION NO: 21-4395

ACCOUNTING APPROVAL: Cher Quest Date: 8-13-21



CITY OF FLINT

WILL YOUR DEPARTMENT NEED A CONTRACT? YES ☒ NO

(If yes, please indicate how many years for the contract)

WHEN APPLICABLE, IF MORE THAN ONE (1) YEAR, PLEASE ESTIMATE TOTAL AMOUNT FOR EACH BUDGET YEAR: *(This will depend on the term of the bid proposal)*

BUDGET YEAR 1


BUDGET YEAR 2

BUDGET YEAR 3

OTHER IMPLICATIONS *(i.e., collective bargaining)*:

STAFF RECOMMENDATION: (PLEASE SELECT): ☒ APPROVED ☐ NOT APPROVED

DEPARTMENT HEAD SIGNATURE:


Michael J. Brown, Director of Public Works



1020 Hiawatha Blvd. West. Syracuse, NY 13204
72 East Street, Crystal Lake, IL 60014

August 6, 2021

Cheri Priest
Accounts Payable
City of Flint
3310 East Court Street
Flint, MI 48506

Dear Cheri Priest,

Duke's Root Control, Inc. will honor the pricing from bid #2560 for the next two fiscal years, 2021-2022 and 2022-2023. Please contact me with any additional concerns or questions.

Sincerely,

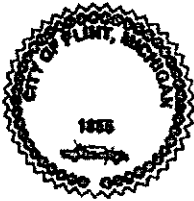
Braden L. Boyko
Vice President of Enterprise Excellence

P20-560 Sewer Line Chemical Root Control Services

ITEM	Duke's Root Control, Inc. DESCRIPTION	Pipe Size	UNIT PRICE PER LINEAR FOOT	ESTIMATED FOOTAGE	TOTAL PRICE
1	Sewer line chemical root control, including all labor, materials, equipment and associated costs, shall be paid for at the unit price bid per linear foot of each size pipe. Unit prices are to be computed per linear foot manhole-to-manhole	6 INCH	\$1.45	1	\$1.45
		8 INCH	\$1.45	1	\$1.45
		10 INCH	\$1.60	1	\$1.60
2	Syracuse, New York	12 INCH	\$1.74	1	\$1.74
		15 INCH	\$2.43	1	\$2.43
		18 INCH	\$3.50	1	\$3.50
		21 INCH	\$4.33	1	\$4.33
		Additional Manholes*	\$150.00	1	\$150.00
				Sum Total Price (in figures)	\$168.60
	*Manholes no directly connected to main-line sections of pipe specified for treatment				

200160

CITY OF FLINT



PROPOSAL #20000560

RESOLUTION NO: _____

PRESENTED: 4-13-20

PRESENTED: 4-13-2020

BY THE CITY ADMINISTRATOR:

**RESOLUTION TO DUKE'S ROOT CONTROL, INC FOR
SEWER LINE CHEMICAL ROOT CONTROL SERVICES**

The Department of Purchases & Supplies solicited proposals for the City of Flint Sewer Line Chemical Root Control Services as requested by the Department of Public Works, and;

Duke's Root Control, Inc was the sole bidder for said services. Funding for said services are budgeted and will come from the following account:

Dept.	Name of Account	Account #	Grant #	Amount
590	Root Control	540.300-801.000	N/A	\$ 350,000.00

IT IS RESOLVED, Appropriate City officials are to do all things necessary to enter into a contract with Duke's Root Control, Inc., in an amount not-to-exceed \$350,000.00.

APPROVED AS TO PURCHASING:

Joyce A. McClane
Purchasing Manager

APPROVED AS TO FINANCE:

Amanda Trujillo
Acting Chief Financial Officer

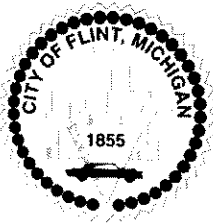
APPROVED AS TO FORM:

Angela Wheeler, Chief Legal Officer

Clyde Edwards, City Administrator

CITY COUNCIL

Monica Galloway, Council President



PROPOSAL# 21-518

RESOLUTION NO.: 210450

PRESENTED: SEP 22 2021

ADOPTED: _____

BY THE CITY ADMINISTRATOR:

RESOLUTION TO FERGUSON WATERWORKS FOR WATER SERVICE REPAIR PARTS

The City of Flint Department of Purchases & Supplies solicited bids for Water Main and Service Connection Parts as requested by the Water Service Center for two (2) years and;

Ferguson Waterworks, 4040 Eagles Nest, Flushing, MI was the responsive bidder for said requirements. Ferguson Waterworks Inc. was awarded the contract in 2020, and resolution # 200457 was adopted by Flint City Council to approve the request for these supplies.

Whereas, the Water Service Center is requesting to enter into year two (2) of the two-year contract with Ferguson Waterworks Inc. for Fiscal year 2022. Funding for said services are available in the following account for FY22 (07/01/21-06/30/22):

Account Number	Account Name	Amount
591-540.202-752.000	Supplies	110,000.00
	FY22 GRAND TOTAL	\$110,000.00

IT IS RESOLVED, that the Proper City Officials are authorized to enter into year two (2) of the two-year contract with Ferguson Waterworks, Inc. for Water Main and Service Connection Parts for WSC for FY22 (07/01/21-06/30/22), and issue a purchase order amount not-to-exceed \$110,000.00.

APPROVED AS TO FORM:

Angela Wheeler
Angela Wheeler (Sep 14, 2021 15:41 EDT)

Angela Wheeler, Chief Legal Officer

APPROVED AS TO FINANCE:

Robert J. F. Widigan

Robert Widigan, Interim Chief Financial Officer

FOR THE CITY OF FLINT:

CLYDE D EDWARDS
CLYDE D EDWARDS (Sep 15, 2021 08:15 EDT)

Clyde Edwards, City Administrator

APPROVED BY CITY COUNCIL:

Kate Fields
Kate Fields, City Council President

APPROVED AS TO PURCHASING:

Lauren Rowley

Lauren Rowley
Purchasing Manager



CITY OF FLINT

WILL YOUR DEPARTMENT NEED A CONTRACT? YES NO ☒

(If yes, please indicate how many years for the contract)

WHEN APPLICABLE, IF MORE THAN ONE (1) YEAR, PLEASE ESTIMATE TOTAL AMOUNT FOR EACH BUDGET YEAR: (This will depend on the term of the bid proposal)

BUDGET YEAR 1

BUDGET YEAR 2

BUDGET YEAR 3

OTHER IMPLICATIONS (i.e., collective bargaining):

STAFF RECOMMENDATION: (PLEASE SELECT): X ☒ APPROVED ☐ NOT APPROVED

DEPARTMENT HEAD SIGNATURE:


Michael J. Brown, Director of Public Works



SEALED PROPOSALS RECEIVED IN THE DIVISION OF PURCHASES & SUPPLIES
For 2 YEAR WATER SERVICE/WATER MAIN REPAIR PARTS
PROPOSAL #21000518

Approximate Annual Quantities – Not Guaranteed
Furnish as requested for the period 7/1/20 – 6/30/22

<i>Vendor</i>	<i>Total Unit Price Year 1</i>	<i>Total Unit Price Year 2</i>
Etna Supply Company, Grand Rapids, MI	\$3,749.05	\$3,016.15
Ferguson Waterworks, Flushing, MI	\$2,503.15	\$2,681.81

CITY OF FLINT

200457



PROPOSAL #21000518

RESOLUTION NO: _____

PRESENTED: NOV - 9 2020ADOPTED: NOV - 9 2020

BY THE CITY ADMINISTRATOR:

**RESOLUTION TO FERGUSON WATERWORKS FOR WATER MAIN AND
SERVICE CONNECTION PARTS**

The Finance Department-Division of Purchases and Supplies solicited bids for Water Main and Service Connection Parts as requested by the Water Service Center for two (2) years; and


Ferguson Waterworks, 4040 Eagles Nest, Flushing, Michigan was the responsive bidder for said requirements.

Funding for said services are available in the following account for FY21 (07/01/20 - 06/30/21):

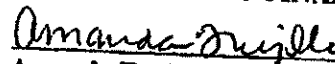
Account Number	Account Name	Amount
591-540.202-726.000	Repair Parts	\$100,000.00
	FY21 (07/01/20 THRU 06/30/21)	\$100,000.00

IT IS RESOLVED, that the Proper City Officials, are authorized to approve the issuance of a purchase order for FY21 (07/01/20 thru 6/30/21 to Ferguson Waterworks for Water Main and Service Connection Parts in the amount not to exceed \$100,000.00.

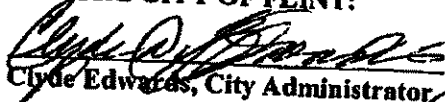
APPROVED AS TO FORM:


Angela Wheeler, Chief Legal Officer


APPROVED AS TO FINANCE:


Amanda Trujillo, Acting Chief Financial Officer

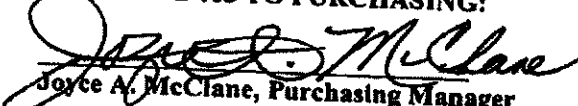
FOR THE CITY OF FLINT:

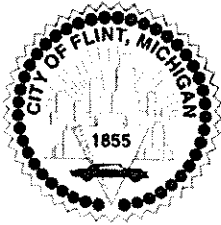

Clyde Edwards, City Administrator

APPROVED BY CITY COUNCIL


Kate Fields, President

APPROVED AS TO PURCHASING:


Joyce A. McClane, Purchasing Manager



PROPOSAL 19-560

RESOLUTION NO.: 210451
PRESENTED: SEP 22 2021
ADOPTED: _____

RESOLUTION TO DLZ MICHIGAN INC. FOR
WPC NORTHWEST PUMP STATION BYPASS DIVERSION ENGINEERING
CONTRACT CHANGE ORDER-1

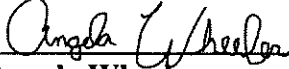
BY THE CITY ADMINISTRATOR:

DLZ Michigan, Inc. was awarded the contract for the WPC Northwest Pump Station Bypass Diversion Engineering in the amount of \$169,753.00. Due to unforeseeable conditions related to the boring and locating of the 102" diameter sanitary sewer transmission line additional engineering oversight is required for the bypass diversion project. The original Final Completion date of June 14, 2021 was extended due to these obstacles. The additional engineering oversight and project time extension requires a change order of \$5,100.00.

Account Number	Account Name	Amount
590-550.300-801.000	WPC- Professional Services	\$5,100.00

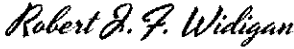
IT IS RESOLVED, that the Proper City Officials, are authorized enter into **Change Order-1** with DLZ Michigan, Inc., 1425 Keystone Avenue, Lansing, Michigan, 48911 for the additional engineering oversight required to complete the WPC Northwest Pump Station Bypass Diversion project in the not to exceed amount of \$5,100.00, a revised contract not to exceed amount of \$174,853.00.

APPROVED AS TO FORM:



Angela Wheeler
Chief Legal Officer

APPROVED AS TO FINANCE:



Robert Widigan
Interim Chief Financial Officer

FOR THE CITY OF FLINT:



CLYDE D EDWARDS (Sep 7, 2021 11:30 EDT)
Clyde Edwards, City Administrator

APPROVED BY CITY COUNCIL:

Kate Fields, City Council President

APPROVED AS TO PURCHASING:



Lauren Rowley, Purchasing Manager



CITY OF FLINT

RESOLUTION STAFF REVIEW FORM

TODAY'S DATE: 08/31/2021

BID/PROPOSAL: 19-560

AGENDA ITEM TITLE: WPC NWPS Bypass Diversion Change Engineering Order-1

PREPARED BY Krystal Wallace
Water Pollution Control

VENDOR NAME: DLZ Michigan, Inc.

BACKGROUND/SUMMARY OF PROPOSED ACTION:

Currently WPC is near completion with a Council approved SRF project to create a bypass diversion to its Northwest Pumping Station. Unforeseen conditions related to soil boring and location of the sanitary sewer during extreme winter conditions caused an increase in the time and equipment allotted for the project. Although as-built drawings were provided, the actual location of the sanitary sewer was 18 ft. away from the expected location. Additionally, during the boring process the soil contained an excessive amount of stone cobbles which affected the estimated project time and required additional equipment resources. These obstacles created the need for additional oversight of the Project Engineer. The original expected date of Final Completion was June 14, 2021.

The City's Administration worked with the engineering firm, DLZ Michigan, Inc. to find a reasonable compromise to the issues stated above of which resulted in this request for a Contract Change Order. Therefore, it is recommended that a change order to the contract with DLZ Michigan, Inc., in the amount of \$5,100.00 for WPC Northwest Pump Station Bypass Diversion project, revised contract amount of \$174,853.00. be approved.

FINANCIAL IMPLICATIONS: None

BUDGETED EXPENDITURE? YES ☒ NO ☐ IF NO, PLEASE EXPLAIN:

Dept.	Name of Account	Account Number	Grant Code	Amount
DPW-WPC	Professional Services	590-550.300-801.000		\$5,100.00
	Change Order 1 Total			\$5,100.00
	Original Contract Amount			\$169,753.00
	New Contract TOTAL			\$174,853.00

PRE-ENCUMBERED? YES ☒ NO ☐ **REQUISITION NO:** 220004954

ACCOUNTING APPROVAL: _____ *[Signature]* **Date:** 9/01/2021



CITY OF FLINT

WILL YOUR DEPARTMENT NEED A CONTRACT? YES ☒ NO ☐
(If yes, please indicate how many years for the contract) YEARS

WHEN APPLICABLE, IF MORE THAN ONE (1) YEAR, PLEASE ESTIMATE TOTAL AMOUNT FOR EACH BUDGET YEAR: (This will depend on the term of the bid proposal)

BUDGET YEAR 1

BUDGET YEAR 2

BUDGET YEAR 3

OTHER IMPLICATIONS (i.e., collective bargaining): None.

STAFF RECOMMENDATION: (PLEASE SELECT): ☒ **APPROVED** ☐ **NOT APPROVED**

DEPARTMENT HEAD SIGNATURE:



(Jeanette Best, WPC Manager)



INNOVATIVE IDEAS
EXCEPTIONAL DESIGN
UNMATCHED CLIENT SERVICE

August 17, 2021

Ms. Jeanette M. Best
City of Flint WPC Manager
G-4652 Beecher Road
Flint, Michigan 48532

RE: NWPS Flow Diversion – Request for Contraction Modification for DLZ Engineering Contract

Dear Ms. Best,

DLZ is requesting a contraction modification to increase DLZ's engineering contract by \$5,100.00 (+3%) from \$169,753.00 to \$174,853.00 for the following reasons:

1. Additional field observation time during the directional drilling operation. The directional drilling operation lasted approximately one additional week.
2. Additional time for Contract Administration beyond the June 14, 2021 Final Completion date. To date this additional time period is 2 ½ months.

DLZ greatly appreciates your consideration of the request contract modification and if you have any questions please contact us at 248-681-7800.

Sincerely,

Gregory J Gucwa, PE
Project Manager

CC: Mr. John Florshinger, DPW Engineer, City of Flint (via email)
Mr. Mike Brown, DPW Director, City of Flint (via email)
Mr. Terry Biederman, Vice President, DLZ (via email)
Mr. Brian Bachler, Construction Manager, DLZ (via email)

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6121 Huntley Road, Columbus, OH 43229 | OFFICE 614.888.0040 | ONLINE WWW.DLZ.COM

Akron Bellefontaine Bridgeville Burns Harbor Chicago Cincinnati Cleveland Columbus Detroit Fort Wayne Grand Rapids Indianapolis Joliet
Kalamazoo Lansing Lexington Logan Louisville Madison Maumee Melvindale Merrillville Munster Muskegon Port Huron Saint Joseph San
José South Bend Waterford



PROPOSAL 20000572

RESOLUTION NO.: 210452
PRESENTED: SEP 22 2021
ADOPTED: _____

RESOLUTION TO Z CONTRACTORS INC FOR
WPC NORTHWEST PUMP STATION BYPASS DIVERSION
SRF NO. 5696-01 – CHANGE ORDER-1

BY THE CITY ADMINISTRATOR:

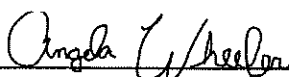
The division of Purchases & Supplies solicited proposals for the construction projects for Phase I of the Michigan State Revolving Fund Loan Project Plan as requested by the Department of Public Works, Water Pollution Control. Council Resolution 190188.1, adopted on June 24, 2019, approved the Publicly Owned Treatment Works, DPW-WPC Improvements SRF Project Plan.

Z Contractors, Inc. was awarded the contract for the WPC Northwest Pump Station Bypass Diversion in the amount of \$3,019,189.00. Due to unforeseeable conditions related to the boring and locating of the 102" diameter sanitary sewer transmission line additional work is required for the bypass diversion project. This additional work requires a change order of \$135,902.99.

Account Number	Account Name	Amount
590-550.413-801.075	SRF – NWPS Bypass Diversion Project	\$135,902.99

IT IS RESOLVED, that the Proper City Officials, are authorized enter into **Change Order-1** with Z Contractors, Inc. 50500 Design Lane, Shelby Township, Michigan, 48315 for the additional work required to complete the WPC Northwest Pump Station Bypass Diversion project in the not to exceed amount of \$135,902.99, a revised contract not to exceed amount of \$3,155,091.99.

APPROVED AS TO FORM:



Angela Wheeler
Chief Legal Officer

APPROVED AS TO FINANCE:



Robert Widigan
Interim Chief Financial Officer

FOR THE CITY OF FLINT:



Clyde Edwards, City Administrator

APPROVED BY CITY COUNCIL:

Kate Fields, City Council President

APPROVED AS TO PURCHASING:



Lauren Rowley, Purchasing Manager



CITY OF FLINT

RESOLUTION STAFF REVIEW FORM

TODAY'S DATE: 08/31/2021

BID/PROPOSAL: P20-572

AGENDA ITEM TITLE: WPC NWPS Bypass Diversion Change Order-1

PREPARED BY Krystal Wallace
Water Pollution Control

VENDOR NAME: Z Contracting, Inc.

BACKGROUND/SUMMARY OF PROPOSED ACTION:

Currently WPC is near completion with a Council approved SRF project to create a bypass diversion to its Northwest Pumping Station. Unforeseen conditions related to soil boring and location of the sanitary sewer during extreme winter conditions caused an increase in the time and equipment allotted for the project. Although as-built drawings were provided, the actual location of the sanitary sewer was 18 ft. away from the expected location. Additionally, during the boring process the soil contained an excessive amount of stone cobbles which affected the estimated project time and required additional equipment resources.

The City's Administration worked with the contractor, Z Contractors, Inc. to find a reasonable compromise to the issues stated above of which resulted in this request for a Contract Change Order. Therefore, it is recommended that a change order to the contract with Z Contractor, Inc., in the amount of \$135,902.99 for WPC Northwest Pump Station Bypass Diversion project, revised contract amount of \$3,155,091.99 be approved.

FINANCIAL IMPLICATIONS: None

BUDGETED EXPENDITURE? YES ☒ NO ☐ IF NO, PLEASE EXPLAIN:

Dept.	Name of Account	Account Number	Grant Code	Amount
DPW-WPC	SRF-NWPS Bypass Division	590-550.413-801.075		\$135,902.99
	Change Order 1 Total			\$135,902.99
	Original Contract Amount			\$3,019,189.00
	New Contract TOTAL			\$3,155,091.99

PRE-ENCUMBERED? YES ☐ NO ☒ **REQUISITION NO:** 220004953

The project will be paid through the Michigan Clean Water Revolving Loan Fund Act upon approval.

ACCOUNTING APPROVAL: *[Signature]* **Date:** 9/6/2021



CITY OF FLINT

WILL YOUR DEPARTMENT NEED A CONTRACT? YES ☒ NO ☐

(If yes, please indicate how many years for the contract) YEARS

WHEN APPLICABLE, IF MORE THAN ONE (1) YEAR, PLEASE ESTIMATE TOTAL AMOUNT FOR EACH BUDGET YEAR: *(This will depend on the term of the bid proposal)*

BUDGET YEAR 1

BUDGET YEAR 2

BUDGET YEAR 3

OTHER IMPLICATIONS *(i.e., collective bargaining)*: None.

STAFF RECOMMENDATION: *(PLEASE SELECT)*: ☒ **APPROVED** ☐ **NOT APPROVED**

DEPARTMENT HEAD SIGNATURE:


(Jeanette Best, WPC Manager)

CHANGE ORDER NO.: 1

Owner:	City of Flint	Owner's Project No.:	P20-572
Engineer:	DLZ	Engineer's Project No.:	1949-693500
Contractor:	Z Contractors	Contractor's Project No.:	202015
Project:	Northwest Pump Station Flow Diversion		
Contract Name:	SRF 5696-01		
Date Issued:	8/26/21	Effective Date of Directive:	8/26/21

The Contract is modified as follows upon execution of this Owner Directed Contingency:

Description:

Z Contractors submitted Change Proposal (CP) #1A and #1B on April 9, 2021 regarding extras borne by their sub-contractor, Rauhorn Electric, for activities related to the directional boring of the 28" HDPE sanitary sewer. CP #1A is for winter conditions including winterizing their boring equipment at the end of each day, rental for a Thawzall heat trailer, additional time for drilling due to inefficiencies from frozen conditions, tents, antifreeze, heaters, and fuel. The total original submitted cost for CP #1A was \$123,428.09 and included 5% OH/P for Z Contractors on sub-contractor work.

CP #1B was for unforeseen ground conditions as the soil boring did not clearly indicate large cobbles which were discovered during the directional drilling operations. The CP include extra manhours for labor inefficiencies, extra rental on equipment, and additional materials including reaming heads, fuel, and boring gel. The total original submitted cost for CP #1B was \$459,539.76 and included 5% OH/P and idled equipment charges for Z Contractors.

Z Contractors submitted CP #6 on April 5, 2021 for additional work related to locating the 102" diameter sanitary sewer tunnel to obtain an accurate tie-in location for the proposed 28" HDPE sanitary sewer. The contract drawings utilized existing as-built drawings to show the location of the tunnel as accurately as possible prior to field investigation. The tunnel was located approximately 18ft to the northwest of the original location shown on the contract drawings. The claim included setting additional boxes for excavation, additional labor and equipment for additional days of locating the tunnel, additional material for backfill, and additional sub-contractor work through Rauhorn Electric and Inland Water. The total original submitted cost for CP #6 was \$51,851.87.

The original claims from the contractor were disputed and re-negotiated several times. The responses to each submittal along with each submittal and re-submittal are attached as reference to this change order. The final agreed upon Change Proposals are as follows:

1. CP #1A + CP #1B = \$255,932.87
2. CP 6 = \$43,100.00

This is the first change order which will use the remaining contingency available of \$149,310.38. Included in the original contract amount are several allowances, all of which have remaining budget that can be moved to cover some of the additional work within this change order. The following table shows the contract amount of each allowance, the amount used as a part of the contract work, and how much is leftover to be allocated to covering additional costs:

Description	Schedule of Values	Used	Remaining
Consumers Energy Service Allowance	\$15,000.00	\$12,664.50	\$2,335.50
Allowance for Soil Erosion Permit	\$5,000.00	\$1,200.00	\$3,800.00
Allowance for Road Commission Permit	\$7,500.00	\$0	\$7,500.00
Allowance for Programming	\$7,500.00	\$7,316.00	\$184.00

A total of \$13,819.50 can be reallocated from the remaining allowance budget to cover some of the additional work. An additional \$135,902.99 (4.5% of the original contract value) is required beyond the contract amount to cover the extra work detailed in this change order.

Attachments:

Attachments.zip

Change in Contract Price		Change in Contract Times [State Contract Times as either a specific date or a number of days]	
Original Contract Price:		Original Contract Times:	
\$ 3,019,189.00		Substantial Completion:	5/17/2021
		Ready for final payment:	6/14/2021
Increase/Decrease from previously approved Change Orders:		Increase/Decrease from previously approved Change Orders:	
\$ 0		Substantial Completion:	0
		Ready for final payment:	0
Contract Price prior to this Change Order:		Contract Times prior to this Change Order:	
\$ 3,019,189.00		Substantial Completion:	5/17/2021
		Ready for final payment:	6/14/2021
Increase this Change Order:		Increase/Decrease this Change Order:	
\$ 135,902.99		Substantial Completion:	0
		Ready for final payment:	0
Contract Price incorporating this Change Order:		Contract Times with all approved Change Order:	
\$ 3,155,091.99		Substantial Completion:	5/17/2021
		Ready for final payment:	6/14/2021

Additionally, DLZ is requesting a contraction modification to increase DLZ's engineering contract by \$5,100.00 (+3%) from \$169,753.00 to \$174,853.00 for the following reasons:

1. Additional field observation time during the directional drilling operation. The directional drilling operation lasted approximately one additional week.
2. Additional time for Contract Administration beyond the June 14, 2021 Final Completion date. To date this additional time period is 2 ½ months.

Recommended by Engineer (if required)		Authorized by Owner
By:	Brian Bachler, PE <small>Brian Bachler 20191, signed by Brian Bachler ©: Brian Bachler and Co. LLC San Jose, CA 95128-4000 A. 00101, EJCDC Form E-700 Rev. 01-18 28 10 11 18 14 15</small>	_____
Title:	Project Construction Manager	_____
Date:	8/26/2021	_____
	Authorized by Owner	Approved by Funding Agency (if applicable)
By:	_____	_____
Title:	_____	_____
Date:	_____	_____



RESOLUTION NO: 210453

PRESENTED: SEP 22 2021

ADOPTED: _____

**JOINT RESOLUTION OF THE MAYOR AND THE FLINT CITY COUNCIL
DECLARING AMERICAN SPIRIT, LLC, DBA CHEERS MARKET A PUBLIC
NUISANCE AND REQUESTING THE MICHIGAN LIQUOR CONTROL
COMMISSION OPEN A NEW COMPLAINT AGAINST AMERICAN SPIRIT,
LLC, DBA, CHEERS MARKET TO REVOKE ITS LICENSURE**

BY THE MAYOR AND THE CITY COUNCIL:

WHEREAS, the actions and inactions of American Spirits, LLC, DBA Cheers Market, (Michigan Liquor Control Commission SDD and SDM license numbers L000189397 and L000189398), located at 2809 W. Court Street in the City of Flint), are a public nuisance that threatens the health, safety, comfort, convenience, and welfare of our community; and

WHEREAS, the public nuisance caused by Cheers Market's actions and inactions is evidenced by over one-hundred (100) 911 police calls, emergency calls, complaint calls, shots fired calls, etc., received by the City of Flint Police Department from April 3, 2020 through March 15, 2021 (see attached reports); and

WHEREAS, Cheers Market, through its continued complicity and/or tolerance, allows the selling, of illicit drugs out of its establishment, which only fuels the public nuisance and further harms residents' health, safety and welfare; and

WHEREAS, on or about 1:00 PM on September 17, 2020, and in broad daylight, shots fired directly from the front parking lot of Cheers Market in the direction of moving traffic headed in an eastbound direction were a clear and present danger to the public further constituting a public nuisance; and

WHEREAS, these shocking, reckless, and lawless actions, fueled by the mere existence of Cheers Market and its patrons, require that the City of Flint condemn such behavior and declare Cheers Market a public nuisance in order to further the public welfare; and

WHEREAS, the City of Flint Police Department is redoubling its efforts to keep the citizenry and all who enter the boundaries of the City of Flint safe; and

WHEREAS, to further keep safe and protect the citizenry and all who enter the boundaries of the City of Flint, the Mayor and the Flint City Council will do all things necessary support the City of Flint community by deterring and eliminating any and all other establishments declared or deemed to be a public nuisance; and

WHEREAS, the City is committed to the elimination of businesses and establishments that devalue the quality of life in the community and offer no true, real, honest, or legal value and positive commitment within the boundaries of the City of Flint; and

WHEREAS, as long as Cheers Market is allowed to carry on the facade of business as usual with impunity and reckless abandon, it will continue to be a public nuisance and it is only a matter of time until a member of the City of Flint's community is seriously injured or killed; and

WHEREAS the Michigan Liquor Control Commission has promulgated rule 436.1103, which states in pertinent part that:

(2) "The commission shall consider all of the following factors in determining whether an applicant may be issued a license or permit:

...

(d) The opinions of the local residents, local legislative body, or local law enforcement agency with regard to the proposed business;

...

(i) The effects that the issuance of a license would have on the economic development of the area.

(j) The effects that the issuance of a license would have on the health, welfare, and safety of the general public."

WHEREAS, the Mayor and the City Councilmembers stand with the residents of Flint, in making this declaration of Cheers Market as a public nuisance; and

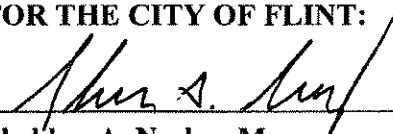
IT IS RESOLVED that the Mayor and the Flint City Council declare Cheers Market a public nuisance seriously affecting the City of Flint, and its community; and

IT IS RESOLVED that the Mayor and the Flint City Council do all things necessary to promote good, honest, hardworking, legitimate and law-abiding businesses throughout the City of Flint; and

IT IS FURTHER RESOLVED that the Mayor and the Flint City Council do all things

necessary to submit this resolution to the Michigan Liquor Control Commission declaring Cheers Market as a public nuisance in the City of Flint and request that a complaint be opened against Cheers Market to revoke its licensure under the Michigan Liquor Control Code.

FOR THE CITY OF FLINT:

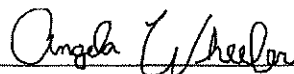


Sheldon A. Neeley, Mayor

APPROVED BY CITY COUNCIL:

Kate Fields, City Council President

APPROVED AS TO FORM:



Angela Wheeler, Chief Legal Officer



CITY OF FLINT

RESOLUTION STAFF REVIEW FORM

TODAY'S DATE: 9/2/2021

BID/PROPOSAL# N/A

AGENDA ITEM TITLE: Joint resolution of the mayor and the flint city council declaring American Spirit, llc, dba cheers market a public nuisance and requesting the Michigan Liquor Control Commission open a new complaint against American Spirit, llc, dba, Cheers Market to revoke its licensure

PREPARED BY Angela Wheeler, Department of Law

VENDOR NAME: N/A

BACKGROUND/SUMMARY OF PROPOSED ACTION:

American Spirits, LLC, DBA Cheers Market's, (Michigan Liquor Control Commission SDD and SDM license numbers L000189397 and L000189398, located at 2809 W. Court Street in the City of Flint), actions, and inactions are a public nuisance and continues to threaten the health, safety, comfort, convenience, and welfare of our community. Cheers Market's actions and inactions are clearly indicative of a public nuisance resulting in over one-hundred (100) 911 police calls, emergency calls, complaint calls, shots fired, etc., within a time span of April 3, 2020 through March 15, 2021 having been made to the City of Flint Police Department. As long as Cheers Market is allowed to carry on the facade of business as usual with impunity and reckless abandon it will continue to be a public nuisance and it's only a matter of time before someone of the City of Flint community is seriously injured or killed.

The Michigan Liquor Control Commission R 436.1003 Building and ordinances; Rule 3. (1) A licensee shall comply with all state and local building, plumbing, zoning, sanitation, and health laws, rules, and ordinances as determined by the state and local law enforcement officials who have jurisdiction over the licensee. (2) A licensee shall not use a license at the licensed premises unless a temporary or permanent certificate of occupancy has been issued to the local unit of government having jurisdiction over the location of the licensed premises or the licensed premises complies with the requirements in subrule (1) of this rule. The Michigan Liquor Control Code, Administrative Rules, and Related Laws also known as the State Of Michigan Liquor Control Commission R 436.1103 Application for License; forms; required information, Rule 5 subrule (2) "The commission shall consider all of the following factors in determining whether an applicant may be issued a license or permit:....(d) The opinions of the local residents, local legislative body, or local law enforcement agency with regard to the proposed business; (i) The effects that the issuance of a license would have on the economic development of the area. (j) The effects that the issuance of a license would have on the health, welfare, and safety of the general public."



CITY OF FLINT

WHEN APPLICABLE, IF MORE THAN ONE (1) YEAR, PLEASE ESTIMATE TOTAL AMOUNT FOR EACH BUDGET YEAR: *(This will depend on the term of the bid proposal)*

BUDGET YEAR 1 N/A

BUDGET YEAR 2 N/A

BUDGET YEAR 3 N/A

OTHER IMPLICATIONS *(i.e., collective bargaining)*: N/A

STAFF RECOMMENDATION: *(PLEASE SELECT)*: ☒ APPROVED ☐ NOT APPROVED

DEPARTMENT HEAD SIGNATURE: _____
(PLEASE TYPE NAME, TITLE)



RESOLUTION NO.: 210458

PRESENTED: SEP 22 2021

ADOPTED: _____

RESOLUTION TO CITY COUNCIL TO AUTHORIZE THE HEALTHY START GRANT AGREEMENT

BY THE CITY ADMINISTRATOR:

Whereas, In July 2021, the City of Flint was awarded the continuation of a grant in the amount of \$454,795.00 over a one-year period. The funding is allocated for the Genesee Healthy Start Grant. (Performance period July 1, 2021-June 30, 2021).

Whereas, the primary strategy of Genesee Healthy Start Grant is to identify and provide health services to determined cohort children and families, and continued coordination of parent advisory group, of those impacted by the Flint Water Emergency by promoting the recovery of various health barriers through implementation of public health outreach and resident health management strategies.

Whereas, the Genesee County Health Department's mission is to improve the health of Genesee County residents by being proactive in preventing health disparities and by mitigating health related illnesses.

Whereas, Genesee County Health Department is the established Genesee Healthy Start Grant implementation program manager as approved by the Health Resources and Services Administration (HRSA), authorized work plan with an established role as convener of the Genesee County Board of Health and a success record of partnering with multiple community agencies to implement community-driven recovery strategies in response to the Flint Water Emergency.

Whereas, the Genesee County Health Department will enter a performance-based MOU over the duration of the grant program, providing program implementation, serve as the neutral convener of the Genesee Healthy Start Grant, and coordinate integration and collaboration with community-based partners.

IT IS RESOLVED that the appropriate City officials are authorized to do all things necessary to enter into agreement with Genesee County Health Department in the amount not to exceed \$454,795.00 over the final 12-month grant period July 1, 2021-June 30, 2022.

Approved as to Form:

Angela Wheeler
Angela Wheeler (Sep 15, 2021 18:16 EDT)

Angela Wheeler, Chief Legal Officer

CLYDE D EDWARDS
CLYDE D EDWARDS (Sep 16, 2021 11:33 EDT)

Clyde D. Edwards, City Administrator

Approved as to Finance:

Robert J. F. Widigan

Robert J.F. Widigan, Interim Chief Financial Officer

Kate Fields
Kate Fields, Council President

RESOLUTION STAFF REVIEW

Date: September 14, 2021

Agenda Item Title:

RESOLUTION TO CITY COUNCIL TO AUTHORIZE AMENDMENT TO THE HEALTHY START GRANT

Prepared by:

Qiana Towns Williams, Manager of Public Health

Qiana Towns Williams
Qiana Towns Williams (Sep 15, 2021 14:26 EDT)

Background/Summary of Proposed Action:

The purpose of this resolution is to award a contract to the Genesee County Health Department for program implementation of the Genesee Healthy Start Grant.

Included in this process:

- Continue the implementation of Genesee Healthy Start Grant in collaboration with the City of Flint's Office of Public Health.
- Assist with integration of Genesee Healthy Start Grant's health-based implementation programs by promoting collective impact with cohort families to advance the project's goals and objectives.
- Continue coordination of the Parent Advisory Board.
- Oversee data collection and reporting from the collective of community-implemented programs and services.

Excluded from this process:

- No known exclusions.

Financial Implications:

A grant was received in the amount of \$454,795.00 for one year for Genesee Healthy Start program.

Budgeted Expenditure: Yes ___ No X **Please explain, if no: Funds were approved by GCHD after the budget was adopted.**

Pre-encumbered: Yes ___ No x

Requisition #: _____

Other Implications: No other implications are known at this time.

Staff Recommendation: Staff recommends approval of this resolution.

APPROVAL Martita Moffett-Page
Martita Moffett-Page (Sep 15, 2021 16:00 EDT)

Account Number	Grant Code	Category	Amount
296-171.510-702.000	FUSDHHS-18	WAGES - FULL TIME (NON-EXEMPT)	\$ 220,000.00
296-171.510-703.000	FUSDHHS-18	SALARIED EMPLOYEE (EXEMPT)	\$ 7,000.00
296-171.510-705.300	FUSDHHS-18	ACCRUED ABSENCES	\$ 2,500.00

296-171.510-708.000	FUSDHHS-18	UNEMPLOYMENT COMPENSATION (SUTA)	\$ 2,500.00
296-171.510-709.000	FUSDHHS-18	FICA (SOCIAL SECURITY)	\$ 10,000.00
296-171.510-711.000	FUSDHHS-18	MEDICARE	\$ 2,700.00
296-171.510-716.100	FUSDHHS-18	MERS HYBRID DEFINED CONTRIBUTION PENSION	\$ 16,100.00
296-171.510-717.100	FUSDHHS-18	MERS HYBRID DEFINED BENEFIT PENSION	\$ 27,700.00
296-171.510-718.000	FUSDHHS-18	HEALTH INSURANCE PREMIUMS	\$ 10,500.00
296-171.510-725.000	FUSDHHS-18	EMPLOYER HEALTH CARE SAVINGS PLAN (HCSP)	\$ 19,100.00
296-171.510-732.000	FUSDHHS-18	LIFE INSURANCE	\$ 1,250.00
296-171.510-733.000	FUSDHHS-18	OPTICAL INSURANCE	\$ 850.00
296-171.510-734.000	FUSDHHS-18	DENTAL INSURANCE	\$ 1,250.00
296-171.510.735.000	FUSDHHS-18	WORKERS COMPENSATION	\$ 12,000.00
296-171.510-752.000	FUSDHHS-18	SUPPLIES	\$ 5,000.00
296-171.510-801.000	FUSDHHS-18	PROFESSIONAL SERVICES	\$ 54,500.00
296-171.510-861.000	FUSDHHS-18	TRANSPORTATION - MILEAGE REIMBURSEMENT	\$ 2,500.00
296-171.510-900.000	FUSDHHS-18	PRINTING & PUBLISHING	\$ 2,500.00
296-171.510-902.000	FUSDHHS-18	POSTAGE	\$ 500.00
296-171.510-958.000	FUSDHHS-18	EDUCATION, TRAINING, & CONFER	\$ 10,000.00
296-171.510-969.100	FUSDHHS-18	INDIRECT COST ALLOCATION	\$ 41,345.00
296-171.510-977.000	FUSDHHS-18	EQUIPMENT	\$ 5,000.00
TOTAL			\$ 454,795.00

RES-2021-582

TO THE HONORABLE CHAIRPERSON AND MEMBERS OF THE GENESEE COUNTY BOARD OF
COMMISSIONERS, GENESEE COUNTY, MICHIGAN

LADIES AND GENTLEMEN:

BE IT RESOLVED, by this Board of Commissioners of Genesee County, Michigan, that the request by the Interim Health Officer to authorize Amendment No. 3 to the Professional Services Contract between Genesee County, through its Health Department, and City of Flint, to continue to provide outreach and navigation services for the Healthy Start Lead Expansion Project, for the period commencing July 1, 2021, through June 30, 2022, in an amount not to exceed \$454,795.00, to be paid from account 2211-632.01-801.000, with no county appropriation required, is approved (a copy of the memorandum request dated July 14, 2021, being on file with the official records of July 14, 2021, meeting of the Human Services Committee of this Board), and the Chairperson of this Board is authorized to execute the contract on behalf of Genesee County.

AMENDMENT NO. 3
TO HEALTHY START LEAD EXPANSION
PROFESSIONAL SERVICES CONTRACT

This Amendment is effective July 1, 2021- June 30, 2022, and is between Genesee County, Michigan, a Michigan municipal corporation whose principal place of business is located at 1101 Beach Street, Flint, Michigan 48502 (the "County"), and the City of Flint, whose principal place of business is located at 1101 S. Saginaw St, Flint, MI 48502 (the "Contractor") (the Contractor and the County together, the "Parties").

WHEREAS, the Parties executed a Professional Services Contract effective April 1, 2018 and 2 previous Amendments effective July 1, 2019 and July 1, 2020 (together referred to as the "Agreement"), pursuant to which the Contractor would provide assistance identifying and providing health services to determined cohort children, and continued coordination of parent advisory group; and

WHEREAS, the Genesee County Board of Commissioners authorized the Healthy Start Lead Expansion Professional Services Contract and Amendments by Resolutions #18-189, 19-562, and 20-852; and

WHEREAS, the Parties now wish to further amend the Agreement to extend contract services through June 30, 2022.

NOW THEREFORE, the Parties agree as follows:

1. Total budget for additional year of \$454,795.00 (see Exhibit B, Budget, attached to this amendment).
2. The remaining terms of the amended Agreement remain unchanged and in full effect.
3. Execution of this Amendment is authorized by Resolution # _____ issued by the Genesee County Board of Commissioners.

CITY OF FLINT

By: _____
Sheldon Neeley
Mayor, City of Flint

Date: _____

COUNTY OF GENESEE

By: Mark Young
Mark Young, Chairperson Board
of County Commissioners

Date: 8/3/21

ALTERATIONS AND RENOVATIONS (Itemize by category)		
OTHER EXPENSES (Itemize by category)		
Education, Training and Conferences		10000
Travel & Mileage Reimbursement (Navigators Only)		2500
		12500
SUBTOTAL DIRECT COSTS FOR NEXT BUDGET PERIOD		\$ 413,450.00
CONSORTIUM/CONTRACTUAL COSTS	DIRECT COSTS	\$ 413,450.00
	FACILITIES AND ADMINISTRATION COSTS	\$ 41,345.00
TOTAL DIRECT COSTS FOR NEXT BUDGET PERIOD ----->		\$454,795



RESOLUTION NO.: 210477

PRESENTED: SEP 27 2021

ADOPTED: _____

**RESOLUTION APPROVING SETTLEMENT OF Klier v CITY OF FLINT, ET AL
BY THE CITY ADMINISTRATOR:**

Executive Session was requested in this matter on September 27, 2021; and

WHEREAS the City of Flint and one of its employees are defendants in *Joshua Klier v City of Flint, et al*, Case No. 20-114721, in the Genesee County Circuit Court; and

WHEREAS although the City of Flint admits to no liability, the Law Department recommends settling all claims in this case against the City and its employees for \$75,000.00.

WHEREAS the City Administrator also recommends offering settlement on those terms;

THEREFORE, BE IT RESOLVED that the Flint City Council approves and consents to the City settling *Joshua Klier v City of Flint, et al*, Case No. 20-114721, for an amount not to exceed \$75,000.00. Account Number 677.266.200.956.300.

APPROVED AS TO FORM:

Angela Y. Wheeler
Angela Wheeler, Chief Legal Officer

APPROVED AS TO FINANCE:

Robert J. F. Widigan
Robert J. Widigan, Interim Chief
Financial Officer

FOR THE CITY OF FLINT:

Clyde R. Edwards
Clyde Edwards, City Administrator

APPROVED BY CITY COUNCIL:

Kate Fields, City Council President



CITY OF FLINT

ACCOUNTING APPROVAL:

Jennifer Ryan

Jennifer Ryan (Sep 20, 2021 12:36 EDT)

Date: 09/20/2021

WILL YOUR DEPARTMENT NEED A CONTRACT? YES ☐ NO ☐

(If yes, please indicate how many years for the contract) YEARS

WHEN APPLICABLE, IF MORE THAN ONE (1) YEAR, PLEASE ESTIMATE TOTAL AMOUNT FOR EACH BUDGET YEAR: (This will depend on the term of the bid proposal)

BUDGET YEAR 1

BUDGET YEAR 2

BUDGET YEAR 3

OTHER IMPLICATIONS (i.e., collective bargaining):

STAFF RECOMMENDATION: (PLEASE SELECT): ☐ APPROVED ☐ NOT APPROVED

DEPARTMENT HEAD SIGNATURE: _____

Angela Y. Healer

(PLEASE TYPE NAME, TITLE)

ORDINANCE NO. _____

An Ordinance to amend the Flint City Code of Ordinances by amending Chapter 9, General Offenses; Article I, In General.

IT IS HEREBY ORDAINED BY THE PEOPLE OF THE CITY OF FLINT:

Sec. 1. An Ordinance to amend the Flint City Code of Ordinances by amending Chapter 9, General Offenses; Article I, by amending 9-1 and the addition of Sections 9-1.1 thru 9-1.6 Animals and Fowl which shall read in its entirety as follows:

§ 9-1 CRUELTY TO ANIMALS PROHIBITED.

It shall be unlawful for any person to ~~drive or~~ work overwork, torture, torment, cruelly beat, maim, disfigure, or without just cause or excuse kill an animal, or for an owner, possessor, or person who assumes the custody or charge of an animal, to abandon it or cause the animal to be abandoned in any place without making provisions for the animal's adequate care by providing it with sufficient food, water, shelter and medical attention to maintain the animal in a state of good health.

§ 9-1.1 FOR THE PURPOSE OF THIS SECTION:

(A) "PHYSICAL CONDITION" SHALL INCLUDE ANY SPECIAL MEDICAL NEEDS OF A DOG OR ANIMAL DUE TO DISEASE, ILLNESS, AGE, BREED, KIND, OR TYPE ABOUT WHICH THE OWNER OR PERSON WITH CUSTODY OR CONTROL OF THE DOG OR ANIMAL SHOULD REASONABLY BE AWARE.

(B) "INCLEMENT WEATHER" SHALL MEAN WEATHER CONDITIONS THAT ARE LIKELY TO ADVERSELY AFFECT THE HEALTH OR SAFETY OF THE DOG OR ANIMAL, INCLUDING BUT NOT

LIMITED TO RAIN, SLEET, ICE SNOW, WIND, OR EXTREME HEAT AND COLD.

(C) "DOGS THAT ARE LEFT OUTDOORS" SHALL MEAN DOGS/ANIMALS THAT ARE OUTDOORS IN INCLEMENT WEATHER WITHOUT READY ACCESS TO, OR THE ABILITY TO ENTER, A HOUSE, AN APARTMENT BUILDING, OFFICE BUILDING, OR ANY OTHER PERMANENT STRUCTURE THAT COMPLIES WITH THE STANDARDS ENUMERATED IN PARAGRAPH (B) OF SUBDIVISION THREE OF THIS SECTION.

(D) "ANIMAL" INCLUDES EVERY LIVING CREATURE EXCEPT A HUMAN BEING. A PERSON WHO OVERDRIVES, OVERLOADS, TORTURES OR CRUELLY BEATS OR UNJUSTIFIABLY INJURES, MAIMS, MUTILATES OR KILLS ANY ANIMAL, OR DEPRIVES ANY ANIMAL OF NECESSARY SUSTENANCE, FOOD, OR DRINK, IS GUILTY OF A MISDEMEANOR, PUNISHABLE BY IMPRISONMENT FOR NOT MORE 93 DAYS, OR BY A FINE OF NOT MORE THAN FIVE-HUNDRED DOLLARS, OR BOTH.

§ 9-1.2 (A) ANY PERSON WHO OWNS OR HAS CUSTODY OR CONTROL OF A DOG, CAT, DOMESTIC PET/COMPANION THAT IS LEFT OUTDOORS SHALL PROVIDE IT WITH SHELTER APPROPRIATE TO ITS BREED, TYPE OR KIND, PHYSICAL CONDITION AND THE CLIMATE. ANY PERSON WHO KNOWINGLY VIOLATES THE PROVISIONS OF THIS SECTION SHALL BE GUILTY OF A VIOLATION PUNISHABLE BY A FINE NOT LESS THAN \$50.00, NOR MORE THAN \$100.00 FOR A FIRST OFFENSE, AND A FINE OF NOT LESS THAN \$100.00, NOR MORE THAN \$250.00, FOR A SECOND AND SUBSEQUENT OFFENSE. BEGINNING SEVENTY-TWO HOURS AFTER A CHARGE OF VIOLATING THIS SECTION, EACH DAY THAT A DEFENDANT FAILS

TO CORRECT THE DEFICIENCIES IN THE DOG/ANIMAL SHELTER FOR A DOG, PET, ANIMAL THAT HE OR SHE OWNS OR THAT IS IN HIS OR HER CUSTODY OR CONTROL AND THAT IS LEFT OUTDOORS, SO AS TO BRING IT INTO COMPLIANCE WITH THE PROVISIONS OF THIS SECTION SHALL CONSTITUTE A SEPARATE OFFENSE.

§ 9-1.3 MINIMUM STANDARD FOR DETERMINING WHETHER SHELTER IS APPROPRIATE TO A DOG'S/ANIMAL'S BREED. PHYSICAL CONDITION AND THE CLIMATE SHALL INCLUDE:

(A) FOR ALL DOGS/ANIMALS THAT ARE RESTRAINED IN ANY MANNER OUTDOORS, SHADE BY NATURAL OR ARTIFICIAL MEANS TO PROTECT THE DOG/ANIMAL FROM DIRECT SUNLIGHT AT ALL TIMES WHEN EXPOSURE TO SUNLIGHT IS LIKELY TO THREATEN THE HEALTH OF THE DOG/PET/ANIMAL.

(B) FOR ALL DOGS/PETS/COMPANION ANIMALS THAT ARE LEFT OUTDOORS IN INCLEMENT WEATHER, A HOUSING FACILITY, WHICH MUST: (1) HAVE A WATERPROOF ROOF; (2) BE STRUCTURALLY SOUND WITH INSULATION APPROPRIATE TO LOCAL CLIMATIC CONDITIONS AND SUFFICIENT TO PROTECT THE DOG/ANIMAL FROM INCLEMENT WEATHER; (3) BE CONSTRUCTED TO ALLOW EACH DOG/ANIMAL ADEQUATE FREEDOM OF MOVEMENT TO MAKE NORMAL POSTURAL ADJUSTMENTS, INCLUDING THE ABILITY TO STAND UP, TURN AROUND, AND LIE DOWN WITH LIMBS OUTSTRETCHED; AND (4) ALLOW FOR EFFECTIVE REMOVAL OF EXCRETIONS, OTHER WASTE MATERIALS, DIRT AND TRASH. THE HOUSING FACILITY AND THE AREA IMMEDIATELY SURROUNDING IT

SHALL BE REGULARLY CLEANED TO MAINTAIN A HEALTHY AND SANITARY ENVIRONMENT AND TO MINIMIZE HEALTH HAZARDS.

§ 9-1.4 INADEQUATE SHELTER MAY BE INDICATED BY THE APPEARANCE OF THE HOUSING FACILITY ITSELF, INCLUDING BUT NOT LIMITED TO SIZE, STRUCTURAL SOUNDNESS, EVIDENCE OF CROWDING WITHIN THE HOUSING FACILITY, OR BY THE APPEARANCE OR PHYSICAL CONDITION OF THE DOG OR ANIMAL. FURTHERMORE, NO ANIMAL SHALL BE LEFT OUTSIDE LONGER THAN 15 MINUTES WHEN WEATHER TEMPERATURES ARE/REACH ZERO OR SUB-ZERO DEGREES.

§ 9-1.5 UPON A FINDING OF ANY VIOLATION OF THIS SECTION, ANY DOG(S)/ANIMAL(S) SEIZED PURSUANT TO THE PROVISIONS OF THIS ARTICLE THAT HAVE NOT BEEN VOLUNTARILY SURRENDERED BY THE OWNER OR CUSTODIAN OR FORFEITED PURSUANT TO COURT ORDER SHALL BE RETURNED TO THE OWNER OR CUSTODIAN ONLY UPON PROOF THAT APPROPRIATE SHELTER AS REQUIRED BY THIS SECTION IS BEING PROVIDED.

§ 9-1.6 NOTHING IN THIS SECTION SHALL BE CONSTRUED TO AFFECT ANY PROTECTIONS AFFORDED TO DOGS OR OTHER ANIMALS UNDER ANY OTHER PROVISIONS OF THIS ARTICLE.

(A) ANY PERSON WHO VIOLATES THIS CHAPTER IS GUILTY OF A MISDEMEANOR, PUNISHABLE BY A FINE OF NOT MORE THAN \$500 AND/OR IMPRISONMENT UP TO 90 DAYS AND MUST COMPLETE 40 HOURS OF COURT ORDERED COMMUNITY SERVICE RELATED, AFFILIATED OR CONNECTED TO THE HUMANE AND

**PROPER CARE, GROOMING, RAISING
AND/OR TREATMENT TO ANIMALS.**

Sec. 2. This Ordinance shall become
effective this _____ day of _____,
2021, A.D.

Adopted this _____ day of
_____, 2021, A.D.

FOR THE CITY:

Sheldon A. Neeley, Mayor

Inez M. Brown, City Clerk

APPROVED AS TO FORM:



Angela Wheeler, Chief Legal Officer

210397

ORDINANCE NO. _____

An ordinance to amend the Code of the City of Flint by amending Chapter 18, Taxation; Funds; Purchasing; Article I, In General; Section 18-4.1, Service Charge in Lieu of Taxes for Housing Facilities for Certain Persons.

IT IS HEREBY ORDAINED BY PEOPLE OF THE CITY OF FLINT:

Sec. 1. That the provisions of Chapter 18, Taxation; Funds; Purchasing; Article I, In General; Section 18-4.1, Service Charge in Lieu of Taxes for Housing Facilities for Certain Persons, shall be amended by adding subsection (CC), which shall read in its entirety as follows:

(CC) THE CITY ACKNOWLEDGES THAT **THE GRAND FLINT LIMITED DIVIDEND HOUSING ASSOCIATION, LP, A MICHIGAN LIMITED PARTNERSHIP** (THE "OWNER") HAS OFFERED, SUBJECT TO RECEIPT OF AN AUTHORITY-AIDED OR FEDERALLY-AIDED MORTGAGE LOAN AND/OR ALLOCATION OF LOW INCOME HOUSING TAX CREDITS FROM THE MICHIGAN STATE HOUSING AND DEVELOPMENT AUTHORITY ("MSHDA"), TO OWN AND OPERATE A HOUSING PROJECT IDENTIFIED AS "THE GRAND" (THE "PROJECT") ON CERTAIN PROPERTY LOCATED IN THE CITY TO SERVE PERSONS AND FAMILIES OF LOW INCOME, AND THAT THE SPONSOR HAS OFFERED TO PAY THE CITY ON ACCOUNT OF THIS HOUSING DEVELOPMENT AN ANNUAL SERVICE CHARGE FOR PUBLIC SERVICES IN LIEU OF AD VALOREM TAXES.

THE CITY ACKNOWLEDGES THAT THE SPONSOR SHALL BE AFFORDED TAX BENEFITS OF PAYING A SERVICE CHARGE

IN LIEU OF AD VALOREM TAXES (BUT NOT IN LIEU OF PAYMENT OF SPECIAL ASSESSMENTS INCLUDING, BUT NOT LIMITED TO, THE STREET LIGHTING SPECIAL ASSESSMENT). THE CITY FURTHER ACKNOWLEDGES THAT THE SPONSOR FITS WITHIN THE CLASS AS DESCRIBED IN §18-4.3 BELOW. THE ANNUAL SERVICE CHARGE FOR THE CLASS OF PERSONS OF LOW AND MODERATE INCOME SHALL BE EQUAL TO **FOUR PERCENT (4%)** OF THE ANNUAL SHELTER RENTS, EXCLUSIVE OF CHARGES FOR GAS, ELECTRICITY, HEAT, OR OTHER UTILITIES FURNISHED TO THE OCCUPANTS, INCLUDING THE PORTION OF RENT PAYABLE UNDER ANY GOVERNMENTAL SUBSIDY. NOTWITHSTANDING THE FOREGOING, THE ANNUAL SERVICE CHARGE SHALL NOT EXCEED AD VALOREM PROPERTY TAXES THAT WOULD BE ASSESSED OR PAID ABSENT THIS TAX EXEMPTION.

Sec. 2. This ordinance shall become effective immediately upon publication.

Adopted this _____ day of

_____, 2021 A.D.

Sheldon A. Neeley, Mayor

APPROVED AS TO FORM:

Angela Wheeler, Chief Legal Officer

ORDINANCE REVIEW FORM

FROM: Planning and Development
Department

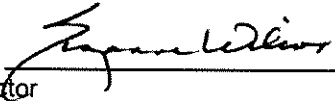
NO. 21-
Law Office Login #

ORDINANCE NAME: RESUBMISSION OF PILOT ORDINANCE RESOLUTION TO GRANT A FOUR (4%) PAYMENT IN LIEU OF TAXES (PILOT) TO PROJECT AT 422 W UNIVERSITY, TO BE CALLED "THE GRAND", PROVIDING 48 UNITS OF AFFORDABLE HOUSING TO LOW AND MODERATE INCOME RESIDENTS. DEVELOPER OWNS PROPERTY AS OF THIS REQUEST.

1. ORDINANCE REVIEW - DEPARTMENT DIRECTOR

The attached ORDINANCE is approved by the Director of the affected Department. By signing, the Director approves this ordinance to be processed for signatures and fully executed.

By: Director
Suzanne Wilcox, Director



DATE: July 12, 2021

2. ORDINANCE REVIEW - LAW DEPARTMENT

The attached ORDINANCE is submitted to the Legal Department for approval. By signing, the Legal Department approves this ordinance to be processed for signatures and fully executed.

By: _____
Angela Wheeler, Chief Legal Officer

DATE: _____

3. ORDINANCE REVIEW-FINANCE DEPARTMENT

The attached ORDINANCE is submitted to the Finance Department for approval. By signing, the Finance

By: _____
Amanda Trujillo, Chief Financial Officer

DATE: _____

4. ORDINANCE REVIEW-MAYORS OFFICE

The attached ORDINANCE is submitted to the Mayors Office for approval. By signing, the Mayor's office

By: _____
Clyde Edwards, City Administrator

DATE: _____

The Grand on University, 422 W University Ave tax comparisons

1) Current taxable value:	46,300	Pilot is based on 4%
2) PILOT estimation	\$17,014.00	DIFFERENCE BETWEEN PILOT AND TAXES: \$51,981.44 per year

Based on the Schedule of Rents provided by Communities First, Inc., at 100% occupancy, given its rental rates for households at 30%, 40%, and 60% of AML, the total annual rent potential for the 48 units is \$425,364.

3) Estimated project ad valorem taxable value:

Market Rent	One Bedroom	Two Bedroom	Three Bedroom
	\$500	\$875	\$1,100
Number of Units	20	21	7
	\$10,000	\$18,375	\$7,700

Monthly Income	\$36,075
Yearly Income	\$432,900
Vacancy/Loss (10%)	(\$64,935)
Potential Gross Income	\$367,965
Expenses	(\$165,584)
Net Operating Income	\$202,381
Cap Rate of 10%	\$2,023,808
SEV/TV	1,011,904
Potential Taxes	\$68,995

**PAYMENT IN LIEU OF TAXES
(PILOT)
APPLICATION**



CITY OF FLINT

1101 S SAGINAW ST.
FLINT, MI 48502
TEL: 810-766-7436

PURPOSE

To administer the City of Flint Code of Ordinances 18-4.1 to 18-4.8, establishing a class of housing developments pursuant to the State Housing Development Authority Act of 1966, known as Act 436 of the Acts of 1966, being MCLA §§ 125.1401 et seq. , as amended, which are exempt from property taxes, paying instead a service charge to be paid in lieu of taxes (PILOT) by any or all classes of housing exempt from taxation under this Act at any amount it chooses, but not to exceed the taxes that would be paid for if not for this Act.

The City acknowledges that serving persons of low income is a public necessity, and as such the City of Flint will be benefited and improved by such housing, the encouragement of the same by providing certain real estate tax exemption for such housing is a valid public purpose. The applicant for a PILOT is affirming that the economic feasibility of this housing development is reliant on this requested tax exemption.

Furthermore, in considering this application for PILOT, the evaluators of such request shall consider that the community shall be developed in a manner consistent with the adopted Master Plan and Consolidated Action Plan. Evaluation of the application should take into consideration maintaining the overall goals and objectives set forth in these plans.

ELIGIBILITY

- 1) Applicant must be a nonprofit housing corporation, consumer housing cooperative, limited dividend housing corporation, mobile home park cooperative or mobile home park association, and must be financed with a federally-aided or Michigan State Housing Development Authority (MSHDA) aided mortgage or advance or grant from MSHDA.
- 2) PILOT has been requested during the planning stage of the project; any development project under construction at the time of application is not eligible to apply for, or to receive, a PILOT.
- 3) The applicant must own the property or have an option or other right to purchase the property under consideration and provide in application.
- 4) Housing development must contain a minimum of 51% affordable units.
- 5) Project includes a Low Income Housing Tax Credit (LIHTC) allocation.
- 6) The property is not designated as a Brownfield or 5/50 property.
- 7) All parcels that are separate have been combined through proper City channels.

PROCESS

1) Mandatory Pre-Application Conference: This will be a meeting of all applicable City Departments to include:

- City Administrator
- City Planner
- City Engineer
- City Treasurer
- City Assessor
- Chief Building Official
- Community and Economic Development Staff
- Representatives of applicant development team

This meeting will serve to familiarize all parties with the scope of the project and any issues that may exist. The applicant will also be familiarized with the PILOT process and policies.

2) Submission of Application: Application form must be complete and packet of required supporting documentation assembled based upon requirements set forth in the application. Any additional concerns or items that were discussed in the Pre-Application Conference should also be addressed. Application forms are available on both the City of Flint website and in the Department of Community and Economic Development.

One original and one electronic copy shall be submitted no later than seven (7) weeks before the Regular City Council meeting, which are typically held on the 2nd and 4th Mondays of each month.

3) Internal (Administrative) Review: An internal review will occur, resulting in either Administrative approval within three (3) weeks or return to the applicant for corrections.

Applications will be scored on a scoring matrix as attached in this application.

Administrative approval will move the application forward to an ordinance amendment that will be placed on the Government Operation Committee meeting agenda.

4) Council Committee Review: Meetings are held the Wednesday prior to the Regular City Council meeting. The developer is required to be in attendance at this meeting to answer any questions the committee may have.

5) Review by City Council: Once committee approval is obtained, the ordinance amendment will proceed to the following Regular City Council Meeting (the Monday following committee). The developer is required to be in attendance at this meeting.

6) Approval: If the PILOT application is approved by resolution of the City Council, a certified copy of the resolution and a copy of the minutes will be provided to the applicant. Additionally, digital copies will be provided to all applicable City Departments.

****Note: All applicants are required to file their MISDA affidavit with the City Assessor by November 1 of the year before the PILOT is to take effect.***

APPLICATION REQUIREMENTS

1) Completed Application Form

2) Narrative:

a. Background information:

i. Development experience of team

Please see attached resumes for Communities First, Inc. and RAD Conversion Specialists, LLC.

ii. Describe the corporate partnership structure

Please see attached proposed organization chart.

b. Describe the proposed Project (include the following sections): We are requesting a 4% PILOT.

i. Intended usage/target market – Low and moderate income individuals and families in Genesee County.

ii. Economic impact –We expect to invest approximately \$14.8 million in the neighborhood with a large multiplier effect from construction and long term economic impact to local businesses in the immediate walking area (Carriage Town and University Avenue Corridor). Additionally, the project will likely create hundreds of construction jobs and additional jobs for property a management office and maintenance staffing and contracts.

iii. Environmental impact (to include any mitigation actions taken) -The property is contaminated with tetrachloroethylene; likely from a previous dry-cleaning business. Additionally, the western adjoining property operating as a gasoline filling station and meets the definition of a facility. The environmental contamination will be mitigated with either a vapor barrier or removing contaminated soils.

iv. Impact on City infrastructure (transportation and utilities) -We expect residents to utilize local public transit and walk for majority of transportation needs (We expect this project to increase the walkability of the area though increasing density and demand for local amenities). We plan to utilize public utilities. This project will help make Flint more attractive for business investment and people by emphasizing a live, work, and play atmosphere due to its location near downtown and local amenities.

v. Impact on City services (police, fire, EMS, code enforcement) -We expect the local area to be much safer and to incentivize investment by homeowners and business owners in the neighborhood. Increasing the density will help activate the area with more residents to deter nearby criminal activity and utilize local businesses and other amenities. We expect nearby property values to increase and more local investment and activity, enlarging the tax base and providing more resources for City services.

vi. Square footage of the building and land to be renovated Building is new construction and total square footage has not been determined.

vii. Architectural renderings to include the number and type of units – Planned unit mix – twenty (20) one-bedroom units; twenty-one (21) two-bedroom units; and seven (7)

(forty-eight (48) total units); See attached site concept plan.

viii. Any other information to fully explain the project

c. Describe the marketing of the project, clearly identifying the intended market. If the project is speculative, how long is full occupancy expected to take and who will be the property manager?

The Project will be marketed through local media advertising, as well as word of mouth. Given current demand for housing in Flint, we expect full occupancy to take approximately 4 to 6 months.

d. Briefly describe the ownership and tax information for this project:

i. State the location or the proposed project to include street address, parcel ID, and the legal description.

Address: 422 W. University Ave.; Parcel ID: 40-12-457-008; Legal Description: MCFARLAN & CO'S WESTERN ADDITION LOTS 5, 8, 10, 13 AND 14; ALSO SLY 33 FT OF LOTS 6 AND 11; ALSO WLY 1/2 OF LOTS 7 AND 9. BLK 38

ii. Name of the property owner at the time of application.

iii. If the applicant is not the current owner of record, attach a valid option to purchase.

Communities First, Inc. owns a majority of the general partner of the owner, The Grand Flint LDHA LP.

iv. Describe any and all financing, options, and liens on the property - We are not aware of any liens on the property. We have received a tax credit reservation from the Michigan State Housing Development Authority and Affordable Housing Program Grant funds to help finance the development. Additionally, sources of funds include grant dollars and deferred developer fee.

v. State the current assessed value of the property.

vi. Are any assessments currently under appeal? If yes, describe.

We are not aware of any assessment appeals.

e. Provide a detailed development pro forma outlining proposed hard, soft and financing costs associated with the development. Pro forma must also identify all sources of financing and terms, including Applicant equity, construction, and permanent financing, as well as any government assistance. Proposals must contain detailed cost breakdowns. Please see attached sources and uses of funds and MSHDA tax credit reservation and AHP Award Letter.

f. Provide a detailed operating pro forma. This must include all anticipated major revenues and expenses for the full term of the requested PILOT. Please see attached 15-year operating proforma. A longer term forecast proforma can be provided upon request.

g. Provide a detailed schedule of rents and income limits of lessees- Please see attached rent schedule with income targeting and unit mix.

h. Provide housing market data to show demand.

See Imagine Flint Master Plan. We have not done a market study but given current demand for rental units in the area and Flint, there is adequate demand for the multifamily apartments, especially near downtown Flint.

i. State a proposed timeline for the Project to include:

- i. Closing of the loan or contributing financing June 2021
- ii. First expenditure of funds with regards to the project January 2019
- iii. Anticipated date construction will begin June 2021
- iv. Anticipated date of completion August 2022

j. Describe any potential conflicts of interest the applicant or any guarantor may have with any City Personnel or City Council members. We are not aware of any conflicts of interest.

k. To receive application bonus points, address the following:

i. **Mixed use (PILOT ONLY applies to housing- not commercial SF)** The proposed project is mixed use with commercial space dedicated to resident services and is expected to contain almost 3,300 square feet of commercial space fronting Grand Traverse St. (along with 48 residential apartment units).

ii. **Energy efficiency and green practices** Project will be certified by NGBS.

iii. **Neighborhood and block club outreach (Full list of outreach done)**

We have had several meetings with neighborhood residents and the neighborhood association, including attendance at a board meeting and solicited feedback regarding project design and characteristics. Additionally, we have modified the design considerably since the first proposal, incorporating different materials, scale, and building size and number. More recently, we have held two video conference calls with residents regarding design concept and project details.

iv. **External amenities (walk score, proximity to transit, jobs, etc.)**

The property's walkscore is 65, however it is within 1/3 of mile of an 81 walkscore and downtown Flint, and just under 1/2 mile from Hurley Hospital. Additionally, we expect the walkscore to increase dramatically once the property is placed in service. The property is located in the Carriage Town Historic District, one block away from Factory 1.

l. Include a copy of the completed MSHDA application for Low Income Housing Tax Credits (LIHTC) within thirty (30) days of submittal to MSHDA.



(APPLICATION FORM ON NEXT PAGE- ATTACH APPLICATION FORM TO THE REQUIRED NARRATIVES AND SUPPORTING DOCUMENTS)

PAYMENT IN LIEU OF TAXES (PILOT) APPLICATION
CITY OF FLINT

APPLICANT INFORMATION

ENTITY NAME	Communities First, Inc. on behalf of The Grand Flint LDHA LP
REPRESENTATIVES NAME	Glenn A. Wilson
ADDRESS	415 West Court Street, Flint, MI 48503
TELEPHONE NUMBER	810 422 5358
E-MAIL ADDRESS	gwilson@communitiesfirstinc.org

GUARANTORS INFORMATION

ENTITY NAME	Communities First, Inc.
ENTITY PRINCIPAL	
ADDRESS	415 West Court Street, Flint, MI 48503
TELEPHONE NUMBER	810 422 5358
E-MAIL ADDRESS	gwilson@communitiesfirstinc.org

ENTITY NAME	RAD Conversion Specialists, LLC.
ENTITY PRINCIPAL	Eric Gold
ADDRESS	32500 Telegraph, #222, Bingham Farms, MI 48025
TELEPHONE NUMBER	248 203 0011
E-MAIL ADDRESS	egold@slavikenterprises.com

PROJECT INFORMATION

PROJECT NAME	The Grand on University
ADDRESS OF PROJECT	422 W. University Ave.
PARCEL ID	40-12-457-008
LEGAL DESCRIPTION	MCFARLAN & CO'S WESTERN ADDITION LOTS 5, 8, 10, 13 AND 14; ALSO SLY 33 FT OF LOTS 6 AND 11; ALSO WLY ½ OF LOTS 7 AND 9. BLK 38 Parcel ID: 40-12-457-008

DEVELOPMENT TEAM

APPLICANT PRIMARY POINT OF CONTACT	Communities First, Inc.
ARCHITECTURAL FIRM	Sedgewick + Ferweda Architects
CONSTRUCTION PROJECT MANAGER	TBD
GENERAL CONTRACTOR FOR PROJECT	TBD

Applicant is to attach items a-l as required in the narrative portion of the application.

- a. Background information See Above
- b. Project description See Above
- c. Project marketing/target market See Above
- d. Ownership description/tax information See Above
- e. Detailed development pro forma Attached
- f. Operating pro forma Attached
- g. Schedule of rents/income levels Attached
- h. Housing market data supporting demand See Above
- i. Proposed project timeline See Above
- j. Conflicts of interest See Above
- k. Application bonus point items See Above
- l. MSHDA application for LIHTC credits

EMPOWERING PEOPLE.
BUILDING COMMUNITIES.



QUALITY OF LIFE STARTS WITH COMMUNITY.

Communities First, Inc. is a nonprofit community development corporation that creates economic development opportunities, provides affordable housing, fosters access to the arts and cultural activities, and educates families and businesses about the environment.

Our holistic approach to building sustainable communities is fueled by a culture of innovation, equity and creative problem solving. Our leadership team and collaborative partners have a spirit of trust, engagement and a contagious passion to make an authentic difference in the communities we serve.

By looking beyond conventional community solutions, we take a strategic approach that challenges the status quo to empower people and build communities.

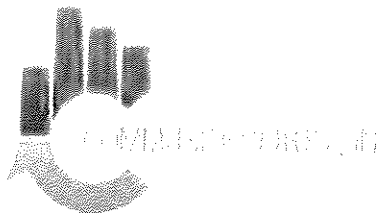
If you believe in the power of community like we do, we welcome you to learn more and join us in making a difference.



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Communities First, Inc. Overview

Communities First, Inc. (CFI) is a Michigan nonprofit 501c3 whose mission is to build healthy, vibrant communities through economic development, affordable housing and innovative programming. The organization is focused on providing safe, quality affordable housing, increasing economic opportunities, and improving quality of life. The motto of Communities First, Inc. is "Empowering People. Building Communities", which speaks to a desire to create social equity, improve quality of life for residents and to improve the built environment.

Affordable Housing

In Flint, Michigan, CFI is the developer of Oak Street Senior Apartments. The \$5.1 million project provides 24 units of safe, affordable housing for low income seniors in the downtown Flint area. Oak School was originally built in 1898 and has been preserved and repurposed. This project is energy efficient, sustainable and is Enterprise Green Communities certified. Communities First, Inc. is also developer of the historic Swayze Apartments in Flint. This vacant and blighted building was renovated into 36 apartments for people who are homeless, at risk of homelessness or who have special needs. This \$8.1 million project has been funded by the Michigan State Housing Development Authority, City of Flint and others.

Coolidge Park Apartments is the most recent housing development undertaken by the organization. Coolidge School was closed in 2011 due to declining enrollment and Communities First, Inc. has secured the bulk of the funding to begin the redevelopment of the site. When complete, the Coolidge development will consist of 54 units (both market rate and affordable), a community center in the gymnasium and more than 8,000 square feet of commercial space.

Economic Development

Communities First, Inc. recognizes that it is important for residents of distressed communities to have increased employment opportunities. The housing that CFI has developed created more than 200 well-paying jobs for local workers, some of whom have barriers to employment, were low income and/or minorities. CFI has been successful in securing more than \$30 million in federal, state and local grant funds for projects in the Flint community. Mixed use projects and other programs are being planned to provide further opportunities for economic development.

Communities First, Inc. participated in a pilot HUD program and became a SPI-HUD Accredited Green Organization. This accreditation is a reflection of CFI's commitment to green building practices and operations. Each of the development projects that Communities First, Inc. is a part of will be designed, constructed and operated with sustainability and environmentally friendly practices in mind. It is the opinion of the organization that this

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approach is responsible, cost effective and progressive. Additionally, the office operations of Communities First, Inc. minimize excess usage of paper, energy and water.

Initially involved in economic development and affordable housing, Communities First, Inc. is further realizing its mission of improved quality of life for distressed communities by establishing additional opportunities to engage those that it serves. The organization has established two programs, Green Life Community Education Program and Culture Shock, to meet additional community needs.

Green Life Community Education Program

Green Life addresses several important topics in that make residents and businesses more aware of their impact on the environment. The program encourages individual and corporate responsibility through resident and business forums. Examples of the topics that are covered include: energy saving and water conservation methods, education about climate change, recycling, the use of public transportation and reducing your carbon footprint.

Culture Shock

Culture Shock, as its name suggests, provides cultural experiences that provoke, surprise and stimulate. By altering and enhancing perceptions of arts and culture--in partnership with other community groups and businesses--individuals and families can expand their horizons, broaden their tastes and deepen their understanding of the world around them. The program provides exposure to arts, music, food, sporting events and various cultures to diversify the experience of residents of low to moderate income communities. Culture Shock eliminates barriers like cost and transportation to increase access and opportunity. This innovative program impacts about 16,000 per year and has received national media coverage.

The Essence of Communities First, Inc.

Communities First, Inc. is committed to the creation of sustainable and equitable communities. By focusing on affordable housing, economic development arts and culture outreach and environmental education, CFI is transforming neighborhoods and lives. The organization utilizes a holistic and proactive approach to community development, which looks at the entire person and examines the complexity of community issues. Equity permeates every aspect of the work of the organization, engaging residents in the planning and execution of projects. CFI is well versed in creative placemaking, involving stakeholders throughout the process to produce changes to the built environment and quality experiences for residents.

CFI has a knack for connecting needs with resources to provide viable solutions to social, economic and environmental problems. These efforts require both collaboration and coordination with community stakeholders to effect true change. The support of community partners, dedicated volunteers and generous funders allows Communities First, Inc. to

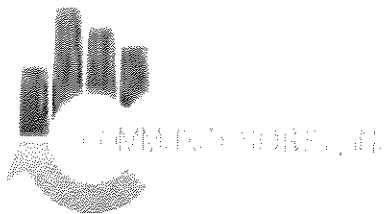
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leverage federal, state and local resources to operate as a catalyst for positive change in distressed communities. The success of CFI in Flint has led to plans for expansion into other cities throughout Michigan with similar needs.

The efforts of CFI have been recognized nationally by MSNBC's Morning Joe, Nonprofit Quarterly and Affordable Housing Finance magazine.

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Glenn Wilson **President/CEO**

As co-founder and President/CEO, Glenn Wilson leads the organization as it response to the great need that distressed communities face in regards to economic development and affordable housing. The organization has secured more than \$30 million in funding, primarily for real estate development projects and provided jobs to more than 200 people in just seven years, due to Mr. Wilson's leadership. Glenn has expansive knowledge of real estate and community development, serving as the primary lead for these activities since the organization's inception in 2010. His background in healthcare, real estate, business, marketing and entrepreneurship has translated well to his real estate development work.

Glenn currently serves on the Michigan Housing Council Board of Directors, Michigan Housing Council Finance and Development Committee and the Community and Economic Development Association of Michigan Board of Directors (Board Chair). He also serves on the boards of the Mass Transportation Authority and Hurley Foundation and is a member of the Federal Home Loan Bank of Indianapolis Advisory Board. Glenn participates in committees at the Flint Institute of Arts and Flint Institute of Music and has a special interest in increasing equity in the arts. He has strong relationships with governmental entities, politicians, foundations and community groups throughout the state of Michigan.

Glenn is the recipient of the American Express Aspire Award from the National Trust for Historic Preservation, the Young Professional Award from the Flint and Genesee Chamber of Commerce, the Michigan Chronicle's 40 Under 40 award, and is a 2017 Next City Vanguard.

Essence Wilson **Chief Strategy Officer**

Essence Wilson is co-founder and Chief Strategy Officer for the organization. Her responsibilities include writing grants, improving organizational efficiency and organizing community engagement efforts.

Essence has a bachelor's degree in mechanical engineering from Kettering University and a master's degree in management, strategy and leadership at Michigan State University. This education and prior experience working at General Motors helped her develop as a leader and innovator, which has served her well in the nonprofit arena. A

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natural planner and logistical thinker, she is often responsible for translating vision to action while producing tangible results.

Her community involvement includes serving on the Flint Institute of Music Board of Directors, participating in committees at Flint Institute of Arts and Flint Institute of Music and recently initiating a successful pilot project to incorporate Montessori Education in Flint Community Schools.

In 2015, Essence was named to the Michigan Chronicle's 40 Under 40 list and in 2016 she was the recipient of the Claire M. White Award presented by the Flint & Genesee Chamber of Commerce.

Michael E. Wright

Real Estate Development Director

Michael obtained his Master's degree in Public Administration with an emphasis in urban and regional policy and planning and Bachelors of Arts degrees in political science and philosophy from Grand Valley State University. Michael has 9 years of real estate development experience as a consultant and developer, specializing in both for-profit and non-profit real estate finance and development. Michael has utilized low income housing, historic, and new markets tax credits, HOME funds, tax increment financing, conventional and HUD insured (221(d)4 and 223(f)) debt, and grants to close various projects in Michigan, Ohio, and Oklahoma. Michael's service ethic is demonstrated by his prior work as a member with LISC/AmeriCorps, Neighborhood Ventures in Grand Rapids and the Wyoming Downtown Development Authority.

Lisa Mauzey

Financial Management Consultant

For the past 25 years, Lisa Mauzey has worked in the accounting fields for both for-profit and non-profit organizations. During this time she has developed strong accounting skills and refined her skills in full-service corporate, real estate, and construction accounting; as well as, administrative skills including human resources. She has worked on projects that assisted neighborhood development organizations building housing in Detroit and Flint by using her abilities to budget, complete construction draws, and organize a build schedule. Lisa earned her Associates of Arts in Accounting from the University of Phoenix in December 2008 and her Bachelors of Business Administration in Innovative Organization from the University of Phoenix in May 2011.

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Project: Oak Street Senior Apartments



Project Overview: Communities First, Inc. is the sponsor/developer of Oak Street Senior Apartments. Oak Street Senior Apartments is a U.S. Department of HUD Section 202 Supportive Housing for the Elderly development. The project consists of 24 units of safe, affordable housing for low income seniors in the downtown Flint area. The historic Oak School was originally built in 1898 and has been preserved according to historic standards. The resulting development is Enterprise Green Communities certified and winner of the Association of General Contractors of Michigan.

Project Type: Permanent Supportive Housing for Elderly

Unit Mix: 24 Units Permanent Supportive Housing

Year of Completion: 2014

Funding Sources: Oak Street Senior Apartments was funded primarily through a U.S. Department of HUD Section 202 Supportive Housing for the Elderly grant and a MSHDA Housing Development Funds grant. Additional sources of funding came from the City of Flint, Genesee County Land Bank Authority and Michigan LISC.

Total Project Cost: \$5.1 Million

Additional Details: Please visit https://www.youtube.com/watch?v=Velpu15_184 for a video of the ribbon cutting ceremony and https://www.youtube.com/watch?v=c6W_D0_WNXA for more information.

Project: Swayze Court Apartments



Project Overview: Communities First, Inc. is the sponsor/developer of Swayze Court Apartments. This project involved the rehabilitation of the historic Swayze Apartments and the construction of a new building on the property. Swayze Court Apartments is a 36 unit permanent supportive housing project for individuals that are homeless, at risk of homelessness or have special needs. Swayze Court Apartments provided more than 100 well-paying construction jobs for the local community and was certified as an Enterprise Green Community.

Project Type: Permanent Supportive Housing (PSH) for Homeless, At Risk of Homelessness, and Special Needs

Unit Mix: 28 PSH Units, 8 Units Mixed Affordable

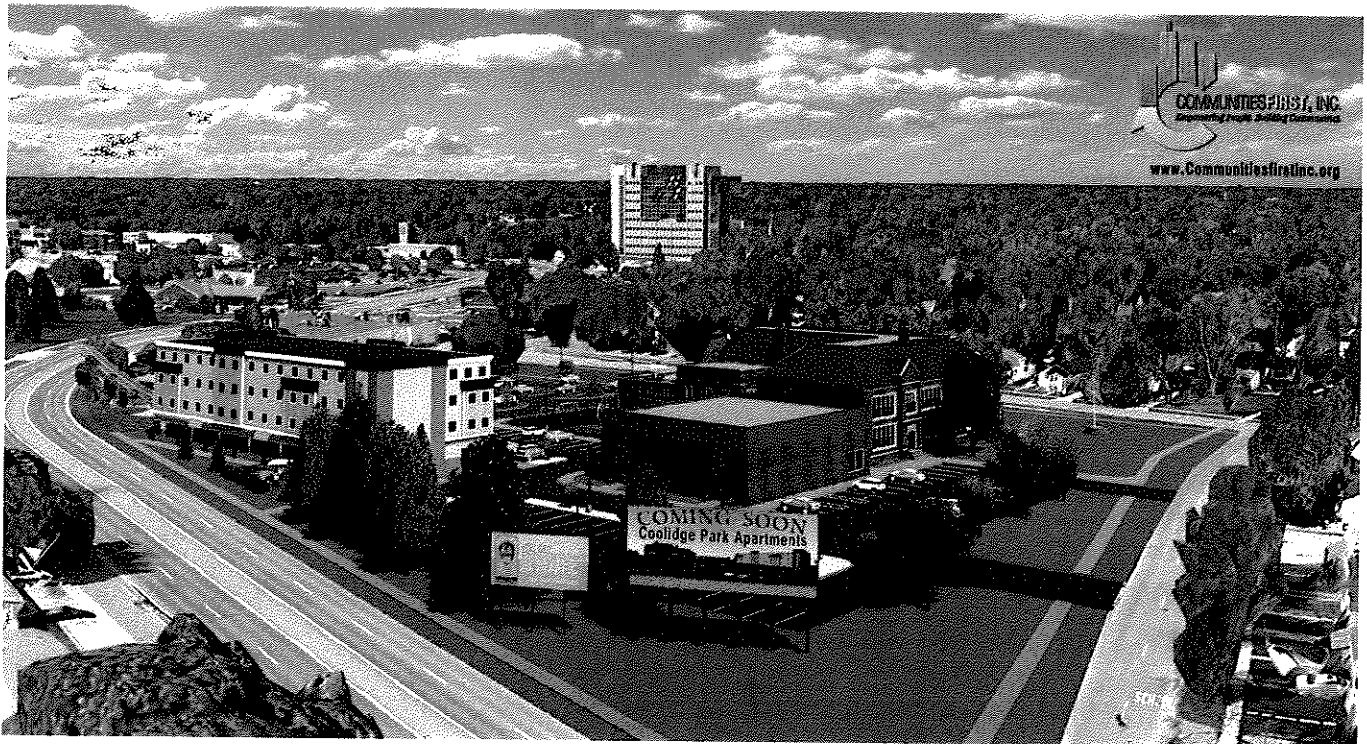
Year of Completion: 2016

Funding Sources: Swayze Court Apartments was funded with MSHDA LIHTC, Federal Historic Tax Credits, MSHDA HOME and City of Flint HOME.

Total Project Cost: \$8.3 Million

Additional Details: Please visit <https://www.youtube.com/watch?v=ovfMPJBriNs&t=21s> for a video of the ribbon cutting ceremony.

Project: Coolidge Park Apartments



Project Overview: Communities First, Inc. is the sponsor/developer of Coolidge Park Apartments. Funding has been secured and construction is scheduled to begin in late 2017/early 2018. The project involves the historic rehabilitation of Coolidge Elementary School and the construction of a new mixed use building on the site. The development includes market rate units, affordable units and 9,000 square feet of commercial space.

Project Type: Low Income Housing Tax Credits (LIHTC)

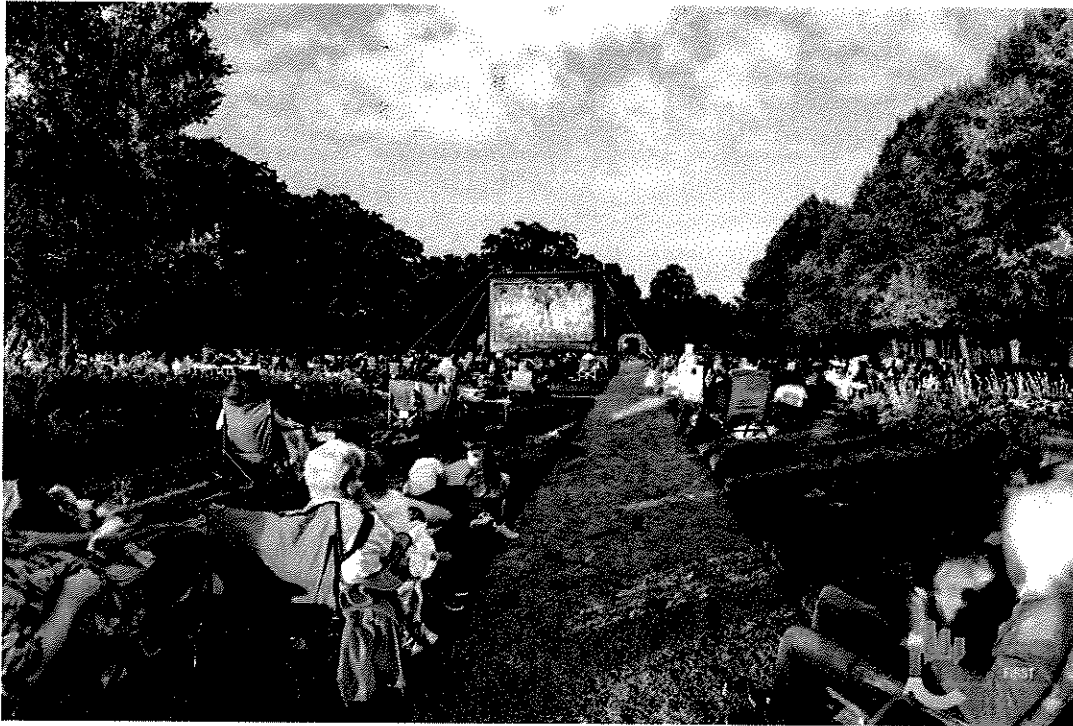
Unit Mix: 54 LIHTC Units, 9 market rate units, 9,000 sq. feet commercial space

Estimated Year of Completion: Early 2019

Funding Sources: Coolidge Park Apartments is funding with MSHDA LIHTC, Federal Historic Tax Credits, City of Flint HOME, foundation grants.

Total Project Cost: \$16.3 Million

Event: Movies Under the Stars



Event Overview: Communities First, Inc. has four major programs, one of which is called Culture Shock. This program offers families the opportunity to engage with arts and culture activities. The purpose is to build community and to utilize creative means to introduce families to the performing and visual arts. One such activity of this program is Movies Under the Stars, an outdoor movie event that draws thousands of families each year. This summer was the fourth season for the series which has now expanded to include both Flint and Saginaw.

Program Outcomes: Community building and engagement, arts and culture exposure

Program Years: 2014-2017

Project: Flint Artist Market



Project Overview: Communities First, Inc. is exploring the idea of transforming the former Flint Farmer's Market into an artist market. An important component of this process was to solicit feedback from the community. This community engagement work began early in the process to assess community needs and desires for the space.

Community Engagement Outcomes: More than 100 people came to the first engagement session to reminisce about the space and to offer their thoughts about the future use. Communities First, Inc. trained 5 local facilitators to assist in gathering information. In total, more than 200 people completed surveys or offered their input. This data was analyzed and put into a realistic, yet ambitious plan for future development work at the site. The plan was then presented to the community at another engagement session to determine if their ideas were carried over into the plan effectively. The support for the proposed plans was overwhelmingly positive and supportive of the proposed project.

Community Engagement Timeframe: Two community engagement events in 2016.

RAD CONVERSION SPECIALISTS, LLC

32500 Telegraph, #222

Bingham Farms, Michigan 48025

(248) 203-0011

RAD Conversion Specialists, LLC (RCS) combines the management, consulting and operations experience of Premier Property Management, LLC ("Premier") and its Principal, Robert Beale, with the development, construction, ownership and financing experience of The Slavik Company ("Slavik") and its principals. RCS was formed for the specific purpose of sharing 85 years of combined affordable housing experience with Affordable Housing decision-makers and assisting them to navigate the path towards successful development of affordable housing communities.



Premier and Slavik first combined efforts in 1999 to respond to a Request for Proposals from the Detroit Housing Commission to redevelop its Jeffries Homes Public Housing Project under HUD's HOPE VI Program. Our group was ultimately selected as Master Developer and we have spent the past 14 years planning and implementing the \$98.2 million transformation of two of Detroit's worst public housing projects into new and vibrant communities of mixed-income rental units, for-sale single-family homes and townhomes, parks, community open space and community centers (shown below). Like most of the other projects we have completed, this project required stakeholder input and feedback, coordinating the activities of market analysts, environmental consultants, CNA consultants, lenders, tax credit investors, architects, engineers, general contractors and others.



This experience provides RCS with the unique ability to assist in all phases of affordable housing development – Assessment, Application and Implementation. The Assessment Phase includes an analysis of the financial feasibility of potential projects, including the investigation of various sources of funds. The Application Phase requires, among other things, detailed development and operating pro-formas and an evaluation of the likelihood of obtaining low-income housing tax credits. While RCS has the experience and ability to guide affordable housing agencies through these phases, the Implementation Phase is where RCS can provide the most value. Our proven financial acumen and experience with low-income housing tax credits, FHA loans, HOME Funds, Replacement Housing Factor (RHF) Funds, as well as our connections with lenders and tax credit investors, will expedite the Implementation Phase and can lead to a very successful development.

RAD Conversion Specialists, LLC combines the real-world success of its principals with a demonstrated ability to work cooperatively and efficiently in public-private partnerships with agencies of varying sizes and competence. Our successful planning, development, construction and efficient management of affordable housing clearly demonstrates our ability to get the job done and sets us apart from other "consultants".



Making Public-Private Partnerships Work

RAD Conversion Specialists, LLC looks to preserve and revitalize public housing

The executives of two companies behind RAD Conversion Specialists, LLC see opportunity to address deferred maintenance at public housing communities in urban and rural areas, and look to expand on their successful completion of two signature developments in Detroit.

In 1999, Scripps Park Associates, LLC was formed by The Slavik Company, Premier Property Management, LLC, Herb Strather and the Rosenberg Housing Group, Inc. to respond to a Request for Proposals from the Detroit Housing Commission to redevelop its Jeffries Homes housing projects – long considered among the City's worst – under HUD's Hope VI program.

The company was ultimately selected as Master Developer for the sites and has spent the past 15 years planning and completing the \$98 million showcase communities that include mixed-income rental units, for-sale single-family homes and townhomes, open-space and community centers.

"When we started, the concept of mixed-income, mixed-use style housing was new," says Robert Beele, President of Premier Property Manager. "The degree to which we embraced it was pretty unique in this country, but we were still concerned about whether or not it would work. We were counting on it to be successful, and it has been. Over the last ten years of occupancy, the communities have remained stable."



RAD Conversion Specialists

Principals: Robert Beele, John Erickson | Location: Detroit, Michigan



SHOWCASE COMMUNITIES

Woodbridge Estates consists of 327 rental units, 100 senior assisted living units and 51 occupied single family homes and town houses with a mix of incomes. Earlier this year, construction began on the sixth and final phase of 46 additional apartments across 12 buildings to be completed by year end.

Supplementing the final phase of apartment construction are 16 remaining single-family home sites. The completed home prices range from \$215,000 for a 1,516 square foot three-bedroom home to \$285,000 for a 2,241 square foot four-bedroom home. Forgivable loans of up to \$75,000 per home are available to qualified buyers under HUD's HOPE VI program.

The only remaining portion of the previous public housing site is now referred to as Woodbridge Senior Village – three high-rise buildings that offer one- and two-bedroom apartments, with rents based on 30 percent of the average median income (AMI) which were partially renovated by Scripps Park Associates, LLC.

Cornerstone Estates, also a multiphase effort, totals 180 rental units in 30 buildings consisting of duplexes and town houses. Rental construction began in October 2010, and the first units were available just one year later.

Although HOPE VI was a relatively new program at the time, navigating HUD's requirements wasn't as difficult as projected, according to John Frasco, Vice President of The Slavik Company.

"It's more of a challenge for the public housing agencies because tax credits and financing are a whole new ballgame for them," he says. "The key is having patience and developing relationships."

Units in both communities are limited to households earning no more than 60 percent of AMI, or \$42,600 for a family of four in Wayne County.

However, public housing assisted units are expected to rent to households making considerably less than that maximum, according to the Detroit Housing Commission.

Vacancy rates at Woodbridge Estates and Cornerstone Estates have remained very low, even during and immediately after the economic downturn of 2008.

"Vacancy has been just 2 percent over the 10 years, even though the economy has seen some hard times," Beale says. "We didn't set out to just build housing, but rather a community. We're pleased with the quality of the housing, the people and the residents."

Developments as successful as these don't go unnoticed by your peers. The company has just been made recipient of the 2014 Excellence in Real Estate Development award from LISC and the Community Development Advocates of Detroit, in association with the Masco Corporation Foundation.

RAD PROGRAM

"The deals were successful for Bob's company and ours," Frasco says. "When we teamed up on the joint venture, we had worked with state agencies and HUD, but not directly with public housing agencies. It's a whole new market with the RAD program, and we hope this experience gives our new venture a leg up on the competition."

RAD is HUD's new Rental Assistance Demonstration program – a pilot program that allows public housing agencies to convert units to a project-based Section 8 platform and will help preserve affordable units in danger of obsolescence. According to HUD, the 1.2 million units in its program have combined capital needs of nearly \$26 billion.

The new venture Frasco referred to is RAD Conversion Specialists, LLC – a joint venture between The Slavik Company and Premier



Property Management – that will allow them to share their combined 85 years of experience in affordable housing with public housing directors deciding whether or not the RAD program is right for their agencies. The joint venture meshes the consulting and operations experience of Premier Property Management with the investment, development, construction and financing acumen of The Slavik Company.

“Our joint venture is a natural progression,” said Frasco. “We brought the development and construction experience and Premier has significant experience managing all types of multifamily housing, including public housing and tax credit communities. We touch on all phases of development and are able to bring the full spectrum to the table.”

The RAD program enables housing agencies to obtain funding to complete deferred maintenance, modernize residential units and mechanical systems and fund replacement reserves, thus reducing future operating and maintenance expenses.

“The RAD program is really an opportunity for public housing agencies to take advantage of what private development has done for years,” says Robert Beale, also an executive director of a small housing agency in metropolitan Detroit. “Specifically, we can help identify where public housing agencies can achieve their goals by utilizing programs that are old to us but new to them.”

RAD Conversion Specialists begins with an assessment phase, in which it analyzes the potential upside and downside of a RAD conversion, including a determination of whether to convert public housing units using project-based vouchers (PBV) or project-based rental assistance (PBRA).

If a conversion is determined to be advantageous and feasible, an application is submitted to HUD following Board approval and two meetings with residents to explain the agency’s plan.

The implementation phase is where Beale says the partnership provides the most value. He cites its experience with low-income tax credits,

Federal Housing Administration loans, Home Funds, and Replacement Housing Factor (RHF) funds – as well as its previous success with their HOPE VI projects, which gave them the opportunity to demonstrate their respective talents, knowledge and experience.

RAD Conversion Specialists works cooperatively with housing agencies of varying sizes and capabilities.

“We are absolutely not looking for a controlling interest,” Beale says. “We’re looking to help public agencies operate their communities and possibly expand their role as local affordable housing owners and developers. That approach really sets us apart.”

The City of Detroit filed for bankruptcy in federal court in July 2013. The \$18 billion worth of debt it reported in its Chapter 9 filing made it the largest bankruptcy in the country. Addressing the serious problem of blight is a major priority for the city’s emergency manager, Kevyn Orr.

According to Reuters, the 78,000 structures the city characterizes as abandoned and blighted total about one-fifth of its housing stock and covers approximately 139 square miles.

Beale and Frasco, however, envision creative opportunities for recovery in a city long seen as a symbol of Rust Belt decay.

“I see Detroit coming out of bankruptcy a better city,” Frasco says. “In becoming that, there’s the potential for riding the course with private demand and real dollars.”

RAD Conversion Specialists also sees itself riding the growth of public-private partnerships, which had been lagging in certain regions of the country and business sectors.

“Certainly, there’s more acceptance of public-private partnerships. We have built on relationships and we’re still building,” Beale says. “All of this brings some level of uncertainty to Public Housing Agencies, I suppose, but because of the opportunities that RAD brings to public housing, there’s definitely a high level of curiosity and willingness to investigate the program further.” ■

RAD Conversion Specialists, LLC ("RCS") was formed for the specific purpose of sharing 85 years of combined affordable housing experience with PHA decision makers and assisting them navigate the path towards the successful redevelopment of their public housing portfolios.

RCS combines the management, consulting and operations experience of Premier Property Management, LLC ("Premier") and its principal, Robert Beale, with the development, construction, ownership and financing experience of The Slavik Company ("Slavik") and its principals. These two firms have over 85 years of combined experience developing, constructing, managing and owning affordable housing. Most recently, they have worked in partnership with the Detroit Housing Commission to redevelop two of Detroit's worst public housing projects into new and vibrant communities. These two developments, Woodbridge Estates and Cornerstone Estates, represent an investment of over \$98 million and includes the construction of 507 multi-family, mixed-income apartment units (including 238 public housing units), 60 for-sale homes and a 100-unit senior congregate apartment community (including 50 public housing units and 50 project-based Section 8 units). Each neighborhood includes open space, parks and a leasing/community center.

Like most of the other projects we have completed, this project required stakeholder input and feedback, coordinating the activities of the market analysts, environmental consultants, CNA consultants, lenders, tax credit investors, architects, engineers, general contractors and others.

Since its formation in 1999, Premier has provided management and/or consulting services for 100 affordable housing communities and currently manages 2,000 units of affordable or mixed-income housing, including 1,000 public housing units. In addition, Mr. Beale has been appointed as Executive Director/Management Agent for the South Lyon Housing Commission (from 2005 through present), the Ecorse Housing Commission (from 2006 through 2011) and the Clinton Township Housing Commission (from 2010 through 2012). Mr. Beale was responsible for turning all three troubled agencies into standard and/or high performers.

Slavik was formed in 1955 and continues its focus on providing high-quality, affordable housing throughout metropolitan Detroit. Since the early 1960's, Slavik has developed almost 3,000 subsidized senior apartment units and over 1,200 low-income or mixed-income multi-family rental units, including the construction of 238 public housing units at Woodbridge Estates and Cornerstone Estates.

RCS is currently providing consulting services to the Lapeer Housing Commission, Bay City Housing Commission and Marion Indiana Housing Authority to assist them through the RAD conversion process. We are development partners with the Paw Paw Housing Commission, Clinton Township Housing Commission and the Housing Authority of the City of Fayetteville Arkansas and are currently working with these housing agencies to rehabilitate, modernize and/or reconstruct their portfolios.

All of these efforts include the experience and knowledge of our affiliate general contractor, Slavik Building and Development, LLC. Steve Slavik has been in the construction and

apartment industries since he began working with his father as a teenager. Howard Katzman brings over twenty years of construction experience, including 226 units of affordable housing at Woodbridge Estates and Cornerstone Estates. All of these projects exceed the Enterprise Green Communities minimum standards and requirements.

Recent Experience

Cornerstone Estates – Phase III

Location: Detroit, MI
Units: 62 family rental units, including 39 public hsg. (new construction)
Total Development Costs: \$10,477,727
Total Construction Costs: \$7,574,638
Sources: Hope VI Loan - \$2,863,593; LIHTC Equity - \$7,046,181;
Brownfield Tax Credit Equity - \$567,953
Project Duration: October 2010 – October 2012
Owner: The Detroit Housing Commission
2211 Orleans
Detroit, Michigan 48207
Attn: Teanisha Eli, Director of Development
313.877.8812

Woodbridge Estates – Phase VI

Location: Detroit, MI
Units: 46 family rental units, including 14 public hsg. (new construction)
Total Development Costs: \$10,579,371
Total Construction Costs: \$7,840,233
Sources: Hope VI Loan - \$3,363,126; LIHTC Equity - \$6,603,461;
Brownfield Tax Credit Equity - \$216,533
Project Duration: January 2012 – November 2014
Owner: The Detroit Housing Commission
2211 Orleans
Detroit, Michigan 48207
Attn: Teanisha Eli, Director of Development
313.877.8812

Bridgeport Apartments

Location: Allegan, MI
Units: 49 family rental units (acquisition/rehab)
Total Development Costs: \$6,289,764
Total Construction Costs: \$2,445,942
Sources: FHA Loan - \$2,265,000; LIHTC Equity - \$3,935,000;
Project Duration: July 2013 – December 2015
Owner: Bridgeport Community LDHA, LLC
(entity related to RCS)

Paw Paw Housing Commission

Location: Paw Paw, MI
Units: 81 public housing, senior apartments (RAD Conversion and rehab)
Total Development Costs: \$7,342,429
Total Construction Costs: \$3,016,630
Sources: LIHTC Equity - \$5,145,823; PHA Funds - \$2,196,606
Project Duration: June 2015 - current (expected completion October 2017)
Owner: Paw Paw Housing Commission
205 Miller Court
Paw Paw, Michigan 48079
Attn: Patricia Winston, Executive Director
269.657.4776

Swayze Court Apartments

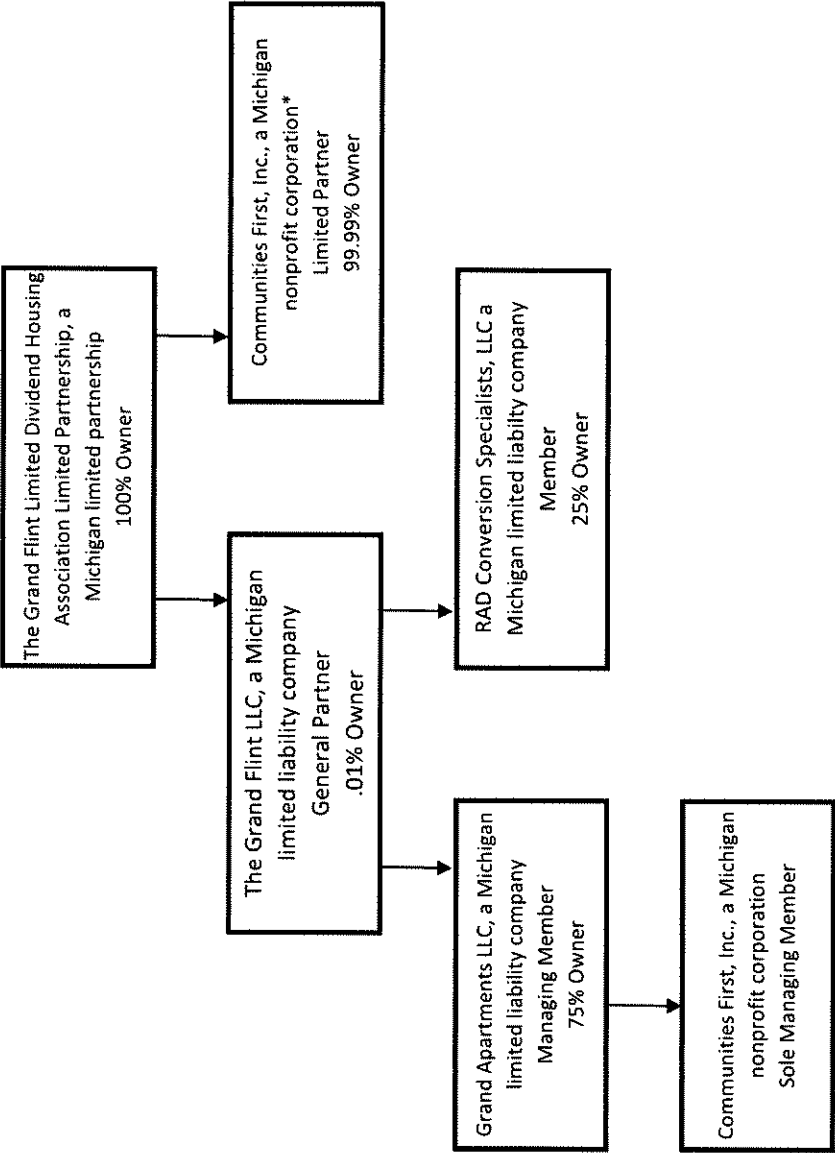
Location: Flint, MI
Units: 36 family rental units (historic rehab and new construction)
Total Development Costs: \$8,529,691
Total Construction Costs: \$5,923,720
Sources: LIHTC & Historic Equity - \$6,643,893; Flint HOME Funds - \$670,973; MSHDA HOME Funds - \$850,000; AHP Loan - \$400,000
Project Duration: June 2014 - current (expected completion September 2016)
Owner: Communities First, Inc. (non-profit developer)
415 West Court Street
Flint, Michigan 48502
Attn: Glenn Wilson, President
810.422.5358

Woodbridge Estates – Senior Apartments

Location: Detroit, MI
Units: 77 elderly designated, including 39 public housing and 16 market rate units (new construction)
Total Development Costs: \$15,924,000
Total Construction Costs: \$12,107,894
Sources: Hope VI Loan - \$3,700,000; LIHTC Equity - \$12,172,283; Other - \$51,717
Project Duration: October 2016 - December 2017
Owner: The Detroit Housing Commission
2211 Orleans
Detroit, Michigan 48207
Attn: Teanisha Eli, Director of Development
313.877.8812

A detailed list of RCS's experience with affordable housing is included on the following pages.

Proposed Organization Chart for
The Grand on University



*Will be replaced by the Investor Limited Partner upon syndication

A1

PROJECT NO. 444
 SHEET NO. 1 OF 1
 PROJECT NAME: 422 WEST UNIVERSITY AVENUE
 DATE: 07/20/2020
 SCALE: 1/8" = 1'-0"

The Grand
 422 West University Avenue
 Flint, MI 48502

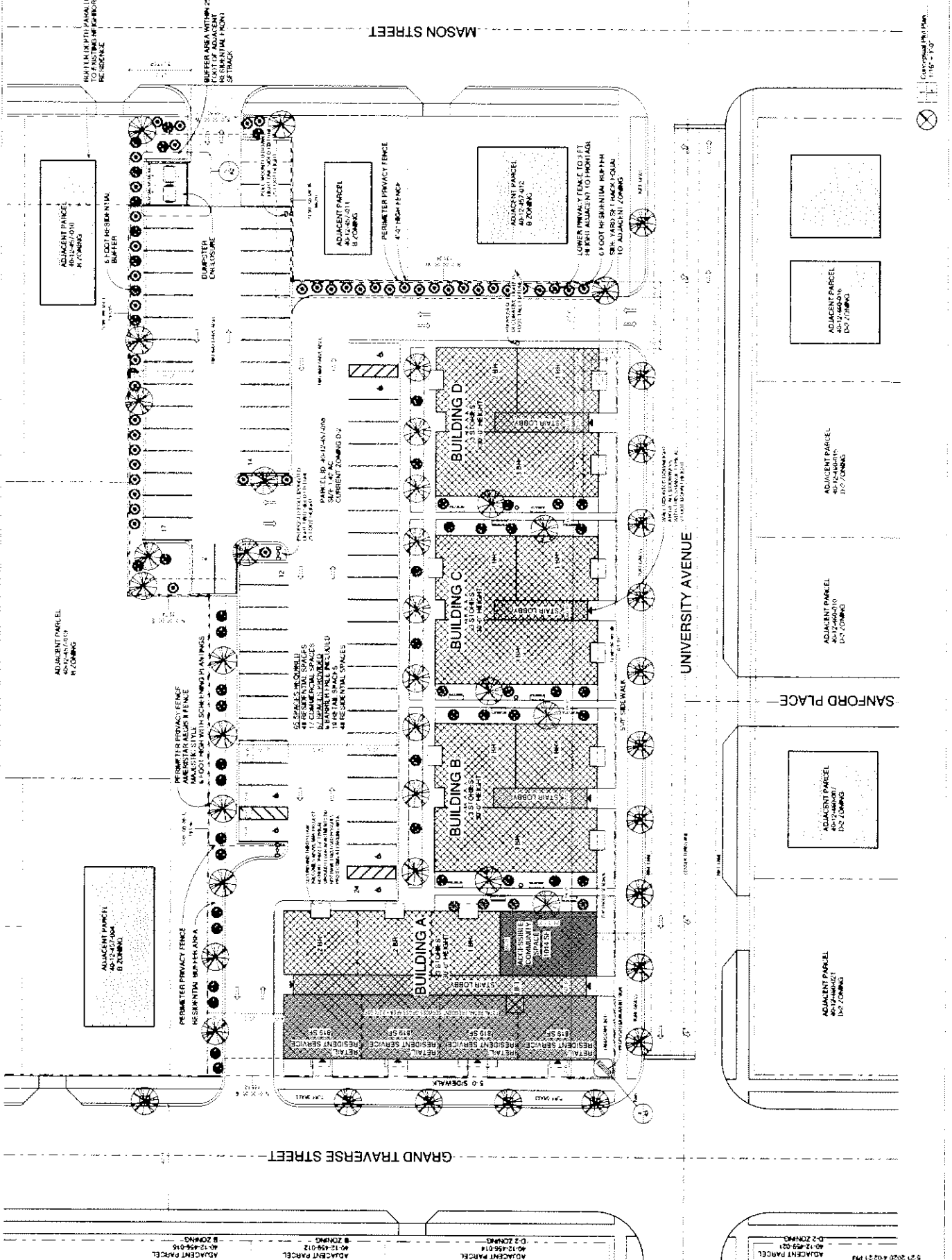
REVISIONS

NO.	DATE	DESCRIPTION
1	07/20/2020	ISSUED FOR PERMITS
2	07/20/2020	REVISED PER COMMENTS
3	07/20/2020	REVISED PER COMMENTS
4	07/20/2020	REVISED PER COMMENTS
5	07/20/2020	REVISED PER COMMENTS
6	07/20/2020	REVISED PER COMMENTS
7	07/20/2020	REVISED PER COMMENTS
8	07/20/2020	REVISED PER COMMENTS
9	07/20/2020	REVISED PER COMMENTS
10	07/20/2020	REVISED PER COMMENTS



SEDGEWICK + FERGUSON ARCHITECTS
 ARCHITECT
 410 East Court Street, Flint, MI 48503
 TEL: 810-238-9647 | FAX: 810-238-4900
 www.sedgwick.com

SEAL OF ARCHITECT



**The Grand on University
Flint, MI**

SOURCES & USES OF FUNDS Summary	
SOURCES	
Grants	30,000
Affordable Housing Program	500,000
City HOME	600,000
Conventional Financing	1,800,000
Tax Credit Equity	11,353,099
Developer Equity	533,628
TOTAL SOURCES	<u>\$14,816,727</u>
USES	
Acquisition of Land and Buildings	250,000
Construction Costs	12,451,920
Soft Costs	2,114,807
TOTAL USES	<u>14,816,727</u>

Property: The Grand on University
Flint, MI

RESIDENTIAL

Income		Initial Inflator	Future Inflator	Begin In Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15
Annual Rental Income		2.00%	2.00%	6	425,364	433,871	442,549	451,400	460,428	469,636	479,079	488,610	498,382	508,349	518,516	528,887	539,464	550,254	561,259
Annual Non-Rental Income		2.00%	2.00%	6	8,500	8,670	8,843	9,020	9,201	9,385	9,572	9,764	9,959	10,158	10,361	10,569	10,780	10,996	11,216
Residential Vacancy Loss		8.00%	5.00%	6	34,029	34,710	35,404	36,112	36,834	37,582	38,351	24,430	24,919	25,417	25,926	26,444	26,973	27,513	28,063
Total Project Revenue					399,835	407,832	415,988	424,308	432,794	441,539	450,650	459,943	469,422	479,090	502,952	513,011	523,271	533,737	544,411
Expenses																			
Management		3.00%			19,733	20,325	20,935	21,563	22,210	22,876	23,562	24,269	24,997	25,747	26,520	27,315	28,135	28,979	29,848
Administration		3.00%			23,837	24,552	25,289	26,047	26,829	27,634	28,463	29,317	30,196	31,102	32,035	32,996	33,986	35,005	36,056
Common Electricity		6.00%	6.00%	6	17,035	18,057	19,141	20,289	21,506	22,797	24,164	25,614	27,151	28,780	30,507	32,338	34,278	36,334	38,514
Water & Sewer		6.00%	6.00%	6	24,505	25,975	27,534	29,186	30,937	32,793	34,761	36,846	39,057	41,401	43,885	46,518	49,309	52,267	55,403
Operating & Maintenance		3.00%			46,934	48,342	49,792	51,286	52,825	54,409	56,042	57,723	59,455	61,238	63,075	64,968	66,917	68,924	70,992
Real Estate Taxes		3.00%			14,502	14,937	15,385	15,847	16,322	16,812	17,316	17,836	18,371	18,922	19,489	20,074	20,676	21,297	21,935
Insurance		3.00%			14,400	14,832	15,277	15,735	16,207	16,694	17,194	17,710	18,241	18,789	19,352	19,933	20,531	21,147	21,781
Payroll & Benefits		3.00%			65,209	67,165	69,180	71,256	73,393	75,595	77,863	80,199	82,605	85,083	87,635	90,265	92,972	95,762	98,634
Total Operating Expenses					226,155	234,186	242,532	251,209	260,229	269,609	279,365	289,514	300,078	311,062	322,499	334,406	346,803	359,715	373,165
Rep. Reserve		2.00%			14,400	14,688	14,982	15,281	15,587	15,899	16,217	16,541	16,872	17,209	17,554	17,905	18,263	18,628	19,000
Net Operating Income					159,280	158,958	158,474	157,818	156,978	170,031	169,068	167,888	166,477	164,819	162,900	160,701	158,205	155,394	152,246
Primary Debt Service						122,642	122,642	122,642	122,642	122,642	122,642	122,642	122,642	122,642	122,642	122,642	122,642	122,642	122,642
Cash Flow					36,638	36,315	35,832	35,176	20,601	47,389	46,426	45,245	43,834	42,177	40,257	38,058	35,563	32,751	29,604

Last edit date:

11/20/2020

Property: The Grand on University

						Proforma Rents	
						CFI Proforma	
						FY 2022	
Unit Type	Avg. Unit Size (SF)	# of units	Gross Rent per unit (\$)	Utility Allowance (\$)	Contract Rent per unit (\$)	Total (\$)	\$ per unit Total \$
1BR (PSH)(60%)(30% AHP)	850	12	720	-	720	8,640	720 8,640
2BR (PSH)(60%)(30% AHP)	1,026	4	825	-	825	3,300	825 3,300
3BR (PSH)(60%)(30% AHP)	1,716	1	969	-	969	969	969 969
1BR/1BA (30%) (30% AHP)	850	5	360	91	269	1,345	269 1,345
1BR/1BA (60%)(80% AHP)	850	2	720	91	629	1,258	629 1,258
2BR/1BA (60%)(80% AHP)	1,026	5	864	121	743	3,715	743 3,715
2BR/1BA (60%) (80% AHP)	1,026	3	864	121	743	2,229	743 2,229
3BR/2BA (60%)(80% AHP)	1,716	4	997	150	847	3,388	847 3,388
2BR/1BA (80%) (80% AHP)	1,026	6	938	121	817	4,902	817 4,902
3BR/2BA (80%)(80% AHP)	1,716	1	1,076	150	926	926	926 926
1BR/1BA (Mkt)	850	2	875		875	1,750	875 1,750
2BR/1BA (Mkt)	1,026	2	975		975	1,950	975 1,950
3BR/2BA (Mkt)	1,716	1	1,075		1,075	1,075	1,075 1,075
Total:		48				35,447	35,447
Annual Total:						425,364	425,364



FHLBI 2020A AHP AWARDED PROJECTS

In 2020, the Federal Home Loan Bank of Indianapolis (FHLBI) awarded \$11.5 million to in Affordable Housing Program (AHP) grants to 24 projects throughout Michigan and Indiana. A summary of these projects is included below. For statistics and data outlining scoring detail and the number of applications received, see the 2020A Competitive AHP Scoring Statistics.

The Anchors At Mariners Inn

Subsidy:	\$272,753		
Location:	Detroit, MI	AHP Units:	44
Type:	R	Total Units:	44
Member:	Flagstar Bank, FSB		
Sponsor:	Cinnaire Solutions Corporation		

The Anchor at Mariners Inn will provide 44 units Permanent Supportive Housing (PSH) units serving homeless individuals in Detroit, MI. These 1-bedroom 600-square foot units will be reserved for those earning less than 30% of area median income and be fully supported by project-based housing vouchers through the Detroit Housing Commission. The project will also have an additional floor of 40 studio units (260 SF) that will be dedicated to short-term Recovery Housing. These units will be a relocation of the existing recovery housing operation, which Mariners Inn are currently providing in their existing facility. To preserve operating efficiency, the building will be National Green Building Standard Silver certified.

The Grand on University

Subsidy:	\$500,000		
Location:	Flint, MI	AHP Units:	43
Type:	R	Total Units:	48
Member:	ELGA Credit Union		
Sponsor:	Communities First		

The Grand on University is a new construction of 48 units of permanent supportive housing in Flint, MI. The proposed project will include 20 one-bedroom units, 21 two-bedroom units, and seven three-bedroom rental apartment units for a total of 48 mixed-income rental housing units for individuals and families. The proposed project will also contain approximately 3,276 square feet of on-site supportive services related space, including 100 square foot supportive services private meeting space and 350 square foot exercise room. The proposed Project will include 17 permanent supportive housing units including ten units reserved for homeless and remaining units reserved for individuals and families who are special needs populations.

The Roof at New Hope: Shelter for Families

Subsidy:	\$500,000		
Location:	Bloomington, IN	AHP Units:	49
Type:	R	Total Units:	49
Member:	Jackson County Bank		
Sponsor:	New Hope for Families		

The Roof at New Hope: Shelter for Families involves the new construction of a shelter building with 12 units in Bloomington, IN. The apartments are grouped into three pods and will accommodate up to 12 families with 49 beds. Each unit will include a private bedroom and bathroom with communal kitchen and living spaces.

JUNE 1, 2020 FUNDING ROUND RESERVATIONS

Project #: K20035	Owner Contact: Nate Trathen (616) 260-6655	
Project Name: Bingham Apartments	Bingham LDHA LP	
Project Address: 555 South 5th Street	3075 Orchard Vista Dr SE	
	Grand Rapids, MI 49546	
County: Alpena	Amt Requested: \$702,430	# Bldgs: 1
	Max Amt Awarded: \$702,257	# Total Units: 35
	Target Units: Elderly	# LIHTC Units: 35
	Category/Set-Aside Funded In: Open / Elderly	Year of Credit: 2020
Application Date: 5/18/2020	Self Score: 122	Final Score: 112

Project #: K20044	Owner Contact: Lori Harris (518) 431-1051	
Project Name: Clark Commons II	Clark Commons II LDHA, LLC	
Project Address: Scattered sites near intersection of Wood and N. Saginaw Streets	200 S. Division Street	
	Buffalo, NY 14204	
County: Genesee	Amt Requested: \$1,500,000	# Bldgs: 15
	Max Amt Awarded: \$1,499,798	# Total Units: 48
	Target Units: Family	# LIHTC Units: 38
	Category/Set-Aside Funded In: Strategic Investment / Distressed	Year of Credit: 2020
Application Date: 6/1/2020	Self Score: 115	Final Score: 105

Project #: K20076	Owner Contact: Glenn Wilson (810) 422-5358	
Project Name: Grand On University, The	The Grand Flint LDHA LP	
Project Address: 422 W. University Avenue	415 W. Court Street	
	Flint, MI 48503	
County: Genesee	Amt Requested: \$1,316,433	# Bldgs: 4
	Max Amt Awarded: \$1,316,433	# Total Units: 48
	Target Units: Family	# LIHTC Units: 43
	Category/Set-Aside Funded In: PSH / Nonprofit	Year of Credit: 2020
Application Date: 6/1/2020	Self Score: 169	Final Score: 163