City of Flint, Michigan

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

Meeting Agenda - Final

Wednesday, September 22, 2021

5:00 PM

ELECTRONIC PUBLIC MEETING

GOVERNMENTAL OPERATIONS COMMITTEE

Eva L. Worthing, Chairperson, Ward 9
Maurice D. Davis, Vice Chairperson, Ward 2

Eric Mays, Ward 1
Kate Fields, Ward 4
Herbert J. Winfrey, Ward 6
Santino J. Guerra, Ward 3
Jerri Winfrey-Carter, Ward 5
Monica Galloway, Ward 7
Allan Griggs, Ward 8

Inez M. Brown, City Clerk
Davina Donahue, Deputy City 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, this meeting will be held electronically.

Pursuant to Act 267 of the Public Acts of 1976 Open Meetings Act as amended, notice is hereby given that the Flint City Council will conduct four (4) regularly scheduled committee meetings, to be held as follows:

Flint City Council Committee Meetings
(Finance, Governmental Operations, Legislative and Grants)
Wednesday, September 22, 2021, at 5 p.m.

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 by dialing (617) 944-8177. (If unable to get through, please dial (206) 451-6011.)

2. In order to speak during the PUBLIC SPEAKING PERIOD of each meeting by telephone, participants will also call (617) 944-8177. (If unable to get through, please dial (206) 451-6011):

a. All callers will be queued and muted until the Public Speaking portion of each 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 two (2) minutes for public speaking during each meeting;

d. The speaker will be returned to mute after the 2 minutes have expired;

e. After the telephonic public speakers for each committee meeting are completed, emailed public comments will be read by the City Clerk. All emailed public comments will be timed for 2 minutes;

f. Per Rules Governing Meetings of the Council (Rule 7.1 VII), there will only be one speaking opportunity per speaker per meeting. Consequently, public participants who call in and speak during the public speaking period of the meetings WILL NOT have any 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 5 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.

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 1246, as passed on December 17, 2020, and signed into law on December 22, 2020, and subsequent amendments that may be adopted.

READING OF DISORDERLY PERSONS CITY CODE SUBSECTION

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.

PUBLIC SPEAKING

Per the amended Rules Governing Meetings of the Council (as adopted by the City Council on Monday, June 12, 2017), two (2) 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.

SPECIAL ORDERS

210447 Special Order/Returning to In-Person City Council Meetings

A Special Order as requested by Council President Fields to discuss returning to in-person City Council meetings.

210446 Special Order/Priority Waste

A Special Order as requested by Council President Fields to discuss waste collection services with representatives of Priority Waste.

210411 Special Order/Flooding/Riverdale Road

A Special Order as requested by Councilperson Galloway regarding the persistent flooding on Riverdale Road.

210408 Special Order/Proposed Memorandum of Understanding/City of Flint/Flint Children's Museum

A Special Order as requested by the Administration to discuss the proposed Memorandum of Understanding between the City of Flint and the Flint Children's Museum (FCM) for the FCM to purchase the Old Farmers Market for its new home.

210276 Special Order/Master Fee Schedule/Street Light Fees

A Special Order as requested by Council Vice President Davis to discuss street light fees in the Master Fee Schedule.

RESOLUTIONS

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.

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.]

210313 Appointment/Hurley Board of Hospital Managers/Mildred Silva Zuccaro

Resolution approving that the Flint City Council approves the appointment of Mildred Silva Zuccaro (no address listed) to the Hurley Board of Hospital Managers to serve the remainder of a five-year term commencing immediately, and expiring April 30, 2022, as requested by Mayor Sheldon Neeley. [NOTE: Ms. Zuccaro is replacing the Rev. Daniel S. Scheid, who recently resigned from the board.]

210398 Mayoral Appointment/Chief Financial Officer/Robert Widigan

Resolution resolving that the Flint City Council approves the recommendation by Mayor Sheldon Neeley to appoint Robert Widigan as Chief Financial Officer [at an hourly compensation rate of $64.90 per hour ($135,000.00 annually).] [General Fund Salary and Wages Acct. No. 101-191.100-703.000 = $91,967.90 and LCSM-17-FRTA = $43,032.10.] [NOTE: The difference in compensation between the Interim Chief Financial Officer and Chief Financial Officer is retroactive to August 16, 2021.]

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.]

OUTSTANDING DISCUSSION ITEMS

210099 Discussion Item/Community Updates/City of Flint Web Site

A discussion item as requested by Councilperson Mays to discuss what constitutes a community update on the City of Flint's Web site. [Referral Action Date: 2/22/2021 @ City Council Electronic Public Meeting.]

210100 Discussion Item/Multi-Member Bodies

A discussion item as requested by Councilperson Mays to discuss multi-member bodies. [Referral Action Date: 2/22/2021 @ City Council Electronic Public Meeting.]

210114 Discussion Item/Eighteen (18) Properties in the City of Flint Pilot Program

A Discussion Item as requested by Councilperson Mays to review the 18 properties City Council retained from the Genesee County Land Bank, including a history of the finances for Jefferson School. [Referral Action Date: 2/17/2020 @ Electronic Governmental Operations Committee Meeting.]

210116 Discussion Item/Job Requirements/Salaries

A Discussion Item as requested by Councilperson Galloway to talk about job requirements and salaries for appointees. [Referral Action Date: 2/22/2020 @ Electronic City Council Meeting.]

210118 Discussion Item/Snow Plowing Strategy

A Discussion Item as requested by Councilperson Winfrey-Carter to talk about the city's snow plowing strategy with Transportation Director John Daly. [Referral Action Date: 2/22/2020 @ Electronic City Council Meeting.]

210205 Discussion Item/Names of Those Driving City-Owned Vehicles

Referral by Councilperson Mays to ADMIN/FLEET, re: He would like the names of employees/appointees driving city-owned vehicles. [Referral Action Date: 4/14/2021 @ City Council Electronic Public Meeting.]

210208 Referral/Conversion to LED Lights

Referral as requested by Councilperson Fields to ADMINISTRATION: re, She asks that the administration look into large-scale conversion to LED lights. [Referral Action Date: 4/22/2021 @ City Council Governmental Operations Committee Electronic Public Meeting.]

210210 Referral/Monthly Reports/Drinking Water Quality

Referral by Councilperson Griggs to PUBLIC HEALTH ADVISOR, re: He would like for the city's Public Health Advisor to provide monthly drinking water quality reports. [Referral Action Date: 4/22/2021 @ City Council Grants Committee Electronic Public Meeting.]

ADJOURNMENT

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 Spirts, 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 Spirts, 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

WHEREAS, subrule (3) An application for a new license, an application for any transfer of interest in an existing license, or an application for a transfer of location of an existing license shall be denied if the commission is notified, in writing, that the application does not meet all appropriate state and local building, plumbing, zoning, fire, sanitation, and health laws and ordinances as certified to the commission by the appropriate law enforcement officials. The commission may accept a temporary or permanent certificate of occupancy for public accommodation issued by the appropriate officials as evidence of compliance with this subrule.

Therefore it is requested that the Mayor and the Flint City Council do all things necessary and declare Cheers Market a public nuisance seriously affecting the City of Flint, and its community; and the Mayor and the Flint City Council do all things necessary work to progress and promote good, honest, hardworking, legitimate and law-abiding businesses throughout the City of Flint; and 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 new complaint be open against Cheers Market to revoke its licensure.

FINANCIAL IMPLICATIONS: No

BUDGETED EXPENDITURE? YES ☐ **NO** ☒ **IF NO, PLEASE EXPLAIN:** No financial impact on the City of Flint

Dept.	Name of Account	Account Number	Grant Gode	Amount
		FY 20/21 GRAND TOTAL		

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

ACCOUNTING APPROVAL: Angela L Wheeler **Date:** 9-2-2021

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

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.: 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 Y. Wheeler

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 Copy0 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://ii.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	2005 – 2007
Fralin Environmental Biotechnology Laboratory, Virginia Tech	1995 – 1999
Project Engineer CH2M Hill, Inc. (now Jacobs Engineering Group), Dallas, Texas	1986 – 1989

ADMINISTRATIVE ACCOMPLISHMENTS

• 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
• 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
• 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
• 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. *J Env Eng*, 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
• *Environmental Science and Technology Letters*, 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. *Water Environment Research* **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." *Water Environment Research*, **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
- **American Society for Engineering Education**
  - Member — 2007 - 2009
- **Association of Environmental Engineering and Science Professors**
  - Member and Fellow (2015) — Discontinuous 1994 - present
  - Master's Thesis Awards Subcommittee (Chair, 1999) — 1994 – present
  - Awards Committee (Chair, 2006-2007) — 1997 – 1999
  - Board of Directors (Elected by membership; elected by board as Vice-President 2008-2009; President-Elect 2009-2010; President 2010-2011) — 2004 – 2007
  - Co-Chair, AEESP 2017 Biannual Conference — 2007 – 2011
  - AEESP Fellows Selection Committee — 2016-2017
- **International Water Association** — 2018
  - 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** EPA Science Advisory Board, Drinking Water Subcommittee	2010 - 2012
• 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 1987 - 2019
• *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.	2002 – 2007
• Appointed by Governors Warner and Kaine (Virginia) to the **Scientific and Technical Advisory Committee to the Chesapeake Executive Council** 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.pdfH	2005 – 2007
• **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=a1703f45b607977176581383l9b971b1

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

	2019-2020
• Advisory Group on University of Michigan activities in Ethiopia, Provost's office	2017-2019
• Advisory Group: U-M Lead and Copper Rule Project, Graham Institute overseeing Mott Foundation project.	2018-2019
• Civil and Environmental Engineering Strategic Plan Implementation and Development Committee, Revising plan in 2017-2018	2013-2018
• College of Engineering Graduate Recruitment, Retention & Summer Programs Advisory Group	2017-2018
• Internal Advisory Board Member, Center for Socially-Engaged Design	2017-2020
• Administrative Structure Working Group, School of the Environment and Sustainability Transition Subcommittee	2017
• U-M ADVANCE LAUNCH Committee Chair	2016-2017
• College of Engineering Promotion, Tenure and Reappointment Process Review Committee, Chair	2017
• UM Energy Institute Faculty Affiliate (https://energy.umich.edu/)	2018-present
• College of Engineering Faculty Search Committee for positions in Engineering Education Research (EER)	2015-2016
• Ethiopia – Michigan Collaborative Consortium (EMC2) Planning Committee, appointed by Assoc Provost James Holloway	2015-2018
• Provost's Committee on Environment and Sustainability	2016
• Provost's Poverty Visioning Committee	2015-2016
• Integrated Training in Microbial Systems (ITiMS) (Burroughs Wellcome Fund training program) Faculty Affiliate	2015 - present
• President's Advisory Commission on Women's Issues	2014-2015
• President's Postdoctoral Fellowship Advisory Committee	2014-2015
• Rackham Graduate School Dean Search Committee	2014
• Provost's Promotion and Tenure Committee	2013
• Mentoring Others Results in Excellence (MORE) Committee, Rackham Graduate School, Member and Chair	2012 - 2013
• Alumni Liaison Committee, Civil and Environmental Engineering	2012-2014
• Deans Advisory Committee on Female Faculty, College of Engineering	2012-2013
• Faculty Search Committee Co-Chair, Civil and Environmental Engineering	2011-2012
• Center for Molecular and Clinical Epidemiology of Infectious Diseases (MAC-EPID) Faculty Affiliate	2009 - present
• Graham Sustainability Institute Faculty Affiliate	2009 - current
• College of Engineering Alumni Awards Selection Committee	2011
• Graham Environmental Sustainability Institute, Executive Committee	2009 - 2011
• College of Engineering Dean's Advisory Committee on Faculty Diversity	2010 - 2012
• Provost's Office - Classroom Emergency Training Video Planning Group	Fall 2008 – 2009
• College of Engineering *ad hoc* Committee on Graduate Student Excellence	Summer 2008
Virginia Tech	
• Chair, College of Engineering "Think Tank" Committee (6 faculty)	2006 – 2007
• Space/Overhead Return Allocation *ad hoc* 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 Sarment. 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 Gatza. 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 WASAC™ 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. Kari 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 Lubkowicz (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. Lauring, L. Li, W. W Roberts, N. Rockey, J. Torreblanca, C. Young, L. G. Anderegg, A. M. Cohn, J. M. Doyle, C. M. Meisenhelder, 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.
4. Hilton*, S., G. Keoleian, G. T. Daigger, B. Zhou, N. G. Love. 2021. Life-cycle assessment of urine diversion and conversion to fertilizer products at the city scale. *Environmental Science & Technology*. 55:593-603.
5. Anderegg, L., J. Doyle, M. L. Gardel, A. Gupta, C. Hallas, Y. Lensky, N. G. Love, B. A. Lucas, E. Mazenc, C. Meisenhelder, A. Pillarisetti, D. Ranard, A. H. Squires, J. Vechakul, N. B. Vilas, S. Williams, D. Wilson, *Chen, T. and the N95DECON consortium. 2021. Heat and humidity for bioburden reduction of N95 filtering facepiece respirators. *Applied Biosafety*. In press. DOI:10.1089/apb.20.0053.
6. Rockey, N., P.J. Arts, L. Li, K.R. Harrison, K. Langenfeld, W.J. Fitzsimmons, A.S. Lauring, N.G. Love, K.S. Kaye, L. Raskin, W.W. Roberts, B. Hegarty, K.R. Wigginton*. 2020. Humidity and deposition solution play a critical role in virus inactivation by heat treatment on N95 respirators. *mSphere*. 5(5):e00588-20. DOI:10.1128/mSphere.00588-20.
7. Admassu Abate, T., A. F. Desta, F. Assefa, N. G. Love*. 2020 The performance of an Ethiopian tannery wastewater treatment system based on chemical and microbiological water quality. *Water Environment Research*. In press. DOI:10.1002/wer.1364.
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9. Troutman, S. C., N. G. Love and B. Kerkez*. 2020. Balancing water quality and flows in combined sewer systems using real-time control. *Environmental Science: Water Research & Technology*. **6**:1357-1369. DOI: 10.1039/c9ew00882a.
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11. Cohen, A. S.*, N. G. Love, K. K. Nace and J. Arvai. 2020. Consumers' acceptance of agricultural fertilizers derived from diverted and recycled human urine. *Environmental Science & Technology*. **54**(8):5297-5305. 10.1021/acs.est.0c00576.
12. Carlson, A. L., G. T. Daigger*, N. G. Love and E. Hart. 2020. Multi-year diagnosis of unpredictable fouling occurrences in a full-scale membrane bioreactor. *Water Science and Technology*. **82**(3):524-536. DOI: 10.2166/wst.2020.354.
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14. Goetsch, H. E., N. G. Love, K. R. Wigginton*. 2020. Fate of extracellular DNA in the production of fertilizers from source-separated urine. *Environmental Science & Technology*.**54** (3):1808-1815. DOI:10.1021/acs.est.9b04263.
15. Brown, M., F. Karimova, N. Love, K. Pagilla, C. Bott, Z. He, B. Liner and S. Merther. 2020. University-utility partnerships: Best practices for water innovation and collaboration. *Water Environment Research*. **92**(3):314-319. DOI:10.1002/wer.1252.

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convergence through fertilizer production: storage, pasteurization, and struvite precipitation. *Environmental Science and Technology*, **50**(21):11619-11626.

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Reviews, Discussions, Editorials and General Technical News Pieces

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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 nitritation/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 Nitritation 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/H_2O_2 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 17α-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 17α-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 17α-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 17α-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 17α-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 17α-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 deamonification 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 17α-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 17α-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 relevent 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 17α-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 nitritation: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. 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.
    - E. Rodriguez, W. Tarpeh, K. Wigginton, **N. G. Love**. Comparative Examination of Pharmaceutical Degradation in Synthetic Urine by a Dielectric Barrier Discharge Plasma Jet and UV/H_2O_2 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. Nitritation 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 nitritation: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/WEA 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/WEA 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/WEA 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.**, Hallerman, 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.**, Delahaye, 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 61/16-5/31/20 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. Salveson. 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 Nitritation 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. Infilco 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. REFRESCH: 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.aaees.org/kappelectureseries/kappelecturer.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, Asconia, 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. MCELMURRY 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

Crisis and have expressed interest and knowledge concerning lead in drinking water. Appointees resumes are attached.

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.

FINANCIAL IMPLICATIONS: There is no budget required to establish or sustain the Water System Advisory Council.

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

Dept.	Name of Account	Account Number	Grant Code	Amount
Public Health	Water System Advisory Council	N/A	N/A	$0
		FY20/21 GRAND TOTAL		**$0**

PRE-ENCUMBERED? YES ☐ NO ☐ REQUISITION NO:

ACCOUNTING APPROVAL: _____ **Date:** _____

WILL YOUR DEPARTMENT NEED A CONTRACT? YES ☐ NO x ☐
(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)*

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 though 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)

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[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

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[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] §Alighalehbabakhani, 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, CZ. (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=vtHjmu8AAAAJ&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.: 210313

PRESENTED: JUN 2 8 2021

ADOPTED: _____

RESOLUTION RECOMMENDING THE APPOINTMENT OF MILDRED SILVA ZUCCARO TO THE HURLEY HOSPITAL BOARD OF MANAGERS

BY THE MAYOR:

WHEREAS, Rev. Daniel S. Scheid's term on the Hurley Board of Managers expires April 30, 2022; and

WHEREAS, Rev. Scheid is unable to complete his appointed term and has resigned from the board; and

WHEREAS, Mayor Sheldon A. Neeley recommends the appointment of Mildred Silva Zuccaroo of Flint to replace Rev. Scheid.

THEREFORE BE IT RESOLVED that the Flint City Council approves the appointment of Mildred Silva Zuccaro to serve the remainder of a five year term on the Hurley Board of Managers, commending June 29, 2021 and expiring April 30, 2022.

APPROVED AS TO FORM:

Angela Wheeler

Angela Wheeler, Chief Legal Officer

FOR THE CITY OF FLINT:

Mayor Sheldon A. Neeley

APPROVED BY THE CITY COUNCIL:

City Council President

MILDRED SILVA ZUCCARO

810.280.5154 | Flint, MI | mildredsilvazuccaro@gmail.com

Greetings Board Managers of Hurley Medical Center,

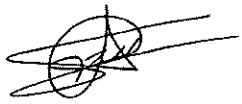
It is with great enthusiasm that I submit my interest and candidacy for a board manager position for the Hurley Medical Center. I am highly motivated and find this position as the ideal opportunity to contribute the skills I have gained from my professional experience, academic studies, and diverse background. My drive and values are aligned with the mission and vision of Hurley Medical Center, with a broad work experience in healthcare in both public health sector and as a medical physician I embody the skill set and connection to the Flint community ideal for the board manager position.

My organizational and logistical skills are well demonstrated in my professional experience including direct patient care and surgery to education, public health and research settings. My performance in my previous position, as Latinx Culture Ambassador, demonstrates my deep connection to the community and awareness of the local social service landscape. In addition to my practice and experience in medicine, I had the amazing opportunity to facilate diversity dialoges and Spanish language instruction in aims to increase access and improved patient care. In my current role as a communty outreach and enrollment navigator for Hamilton Community Health Network I have the opportunity to increase access to medical care by instituting equitable practices addressing language and cultural barriers and enrolling clients into health care.

I am prepared and enthusiastic about the board position. I have strong experience in being an exponent for healthy living, and have in-depth experience in strategies to increase access and service to communities. I am a foreign medical graduate and am preparing for the beginning stages of obtaining my license to practice medicine in the U.S.

I am thrilled by the opportunity to combine my administrative skills with my passion for public health by serving as a board member for Flint's Hurley Medical Center. Thank you for your time and consideration, and I would love the opportunity to further illustrate my experience, knowledge, and skillset.

Respectfully,



Mildred Silva-Zuccaro

MILDRED SILVA ZUCCARO

810.280.5154 mildredsilvazuccaro@gmail.com

PROFESSIONAL SUMMARY

Broadly experienced health care professional with strong connection to local Spanish Speaking community. Highly educated medical graduate of the Universidad Cristobal Colon with a degree of Medical Surgery. Supeior care and conduct managment practice applied through perfoming patient care procedures including consultations, diagnosis and health plan implementation. Expansive knowledge of local institutaions and non-profit organizations. Accomplished research abilites with published work in International Journal.

PROFESSIONAL EXPERIENCE

Outreach and Enrollment Navigator

Hamilton Community Health Network/ Flint, MI/ *Jan.2021-present*
-Identify and establish community engagement strategies to increase access to medical care and enrolment in health coverage with attention to Flint's Latinx and Spanish speaking community.

Latinx Culture Ambassador

Latinx Tech & Community Center/ Flint, MI/ *Mar.2018-2020*
-Connected and aided Spanish-speaking community memebers by serving as an interpreter to assist in navigating various organizations and insitutions to obtain services, enroll in programs and recieve resources.

Diversity Facilitator & Language Instructor

MSU College of Human Medicine/ Flint, MI/ *Mar.2018-present*
-Facilitate diversity dialogues concentrated in Latinx cultural partices and basic Spanish language instruction for culturally enriched patient care education medical students.

EDUCATION

Universidad Cristobal Colon Boca del Rio, Ver., Mexico.
Bachelor of Medical Surgery September 27, 2014. 8.58

Undergraduate Internship General Hospital of IMSS Cardel, Ver,. Mexico
July,2012-June,2013. 9.4

Social Service
Rural Hospital of IMSS Papantla, Ver., Mexico.
Agust, 2013- July 2014

Surgical Technician Assistant

McLaren Greater Lansing/ Lansing, MI/ *Sept.2018-Dec. 2018*

-Performed preoperative and postoperative duties to better facilitate efficiency in the operating room demonstrating expert knowledge of sterile techniques.

General Physician & Consultations

Milleniun Hospital/Veracruz, Ver./Nov.2014-Jan. 2016

-Conducted physical examinations of patients to develop treatment plans with careful consideration to patient preferences, clinical data and risks and benefits of treatments.

Social Service

Rural Hospital of IMSS/Papantla, Ver. August 2013-July 2014

-Provided medical care and attention at rural hospital concentrating on healthy outcomes for pregnant women in labor and delivery with high concentration of native indigenous populations.

PUBLICATION(S)

International Journal for Vitamin and Nutrition Research
December 07,2015 Ref.:Ms. No. IJVNR-D-15-00085R3
Tissue changes in the development of fatty liver by chronic ingestion of sucrose associated with obesity and dyslipidemia in rats.

EDUCATIONAL COURSES

Aesculapyus
ENARM Course
January, 2021

Cardiopulmonary
Resucitation AHA
October, 2017

Gynecology and
Obstetrics
October,2014
Boca del Rio, Ver.,
Mexico

CERTIFICATION(S)

Community Interpreter
Cross Cultural
Communications
May, 2021

Great Lakes Bay
Hispanic Leadership
Institute
SVSU
January, 2020

LANGUAGE

English
Spanish

OFFICE OF THE CITY CLERK

MEMORANDUM

Inez M. Brown
City Clerk

TO: City Council Members

FROM: City Clerk Inez M. Brown

DATE: August 12, 2021

RE: Ms. Mildred Silva Zuccaro Resume

Attached you will find the resume that we have received from Ms. Mildred Silva Zuccaro, a pending nominee to the Hurley Board of Hospital Managers.

Thank you.

MILDRED SILVA ZUCCARO

810.280.5154 310 E Third St Apt215 Flint, MI 48502 mildredsilvazuccaro@gmail.com

PROFESSIONAL SUMMARY

Broadly experienced health care professional with strong connection to local Spanish Speaking community. Highly educated medical graduate of the Universidad Cristobal Colon with a degree of Medical Surgery. Superior care and conduct management practice applied through performing patient care procedures including consultations, diagnosis and health plan implementation. Expansive knowledge of local institutaions and non-profit organizations. Accomplished research abilities with published work in International Journal.

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Jan.2021-present
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Communications
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Great Lakes Bay
Hispanic Leadership
Institute
SVSU
January, 2020

LANGUAGE

English
Spanish

MILDRED SILVA ZUCCARO

810.280.5154 | 310 E Third St Apt 215 Flint, MI 48502 |
mildredsilvazuccaro@gmail.com

Greetings Board Managers of Hurley Medical Center,

It is with great enthusiasm that I submit my interest and candidacy for a board manager position for the Hurley Medical Center. I am highly motivated and find this position as the ideal opportunity to contribute the skills I have gained from my professional experience, academic studies, and diverse background. My drive and values are aligned with the mission and vision of Hurley Medical Center, with a broad work experience in healthcare in both public health sector and as a medical physician I embody the skill set and connection to the Flint community ideal for the board manager position.

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I am thrilled by the opportunity to combine my administrative skills with my passion for public health by serving as a board member for Flint's Hurley Medical Center. Thank you for your time and consideration, and I would love the opportunity to further illustrate my experience, knowledge, and skillset.

Respectfully,

210398

RESOLUTION NO.: _____

PRESENTED: AUG 1 8 2021

ADOPTED: _____

RESOLUTION APPROVING THE APPOINTMENT OF ROBERT WIDIGAN AS CHIEF FINANCIAL OFFICER

BY THE MAYOR:

Pursuant to Flint City Charter Section 4-203(D), the Mayor of the City of Flint hereby appoints Robert Widigan as the Chief Financial Officer.

WHEREAS, the Chief Financial Officer shall be paid a salary based on an annual compensation rate of One-Hundred and Thirty-Five Thousand Dollars ($135,000.00/$64.90 hourly rate) ($91,967.90) paid from account 101-191.100-703.000 Wages and Salaries and ($43,032.10) paid from 296-172.100-703.000 (LCSM-17-FRTA), with the difference in compensation between the Interim Chief Financial Officer and Chief Financial Officer retroactive to August 16, 2021. The terms of appointment and resume are attached.

WHEREAS, Mayor Sheldon Neeley recommends that Robert Widigan be appointed as the Chief Financial Officer.

NOW THEREFORE BE IT RESOLVED that the Flint City Council approves the recommendation by Mayor Sheldon Neeley to appoint Robert Widigan as the Chief Financial Officer.

APPROVED AS TO FORM:

_____

Angela Wheeler, Chief Legal Officer

APPROVED AS TO FINANCE:

Shelbi Frayer
Shelbi Frayer (Aug 5, 2021 10:04 EDT)

_____

Shelbi Frayer, Chief Financial Officer

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: *8.3.2021*

BID/PROPOSAL# N/A

AGENDA ITEM TITLE: Resolution Approving Robert Widigan Appointment to Chief Financial Officer

PREPARED BY
City of Flint Legal Department

VENDOR NAME: N/A

BACKGROUND/SUMMARY OF PROPOSED ACTION:

Resolution authorizing the appointment of Robert Widigan as Chief Financial Officer. Mr. Widigan will be paid a salary based on an annual compensation rate of One-Hundred and Thirty-Five Thousand Dollars ($135,000.00/$64.90 hourly rate) and paid from account 101-191.100-703.000

FINANCIAL IMPLICATIONS: Payment shall be drawn from appropriated funds in and line item 101-191.100-703.000 ($91,967.90) Wages and Salaries and account 296-172.100-703.000 (LCSM-17-FRTA) ($43,032.10)

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

WILL YOUR DEPARTMENT NEED A CONTRACT? YES ☐ **NO** ☒

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

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

ROBERT J.F. WIDIGAN

310 N. Cedar St., Apt. 411| Lansing, MI 48912 | 810.569.8296
rwidigan@gmail.com | www.robertwidigan.com

Experienced professional with a proven track record of success working in local and state government. I am looking for the opportunity to build lasting relationships and help the City of Flint move forward towards further success. Over the past 12 years, my work in local and state government has resulted in a deep understanding of the critical financial and operational issues facing local governments and how communities work and interact with each other.

SUMMARY OF PROFESSIONAL EXPERIENCE

» Manages the fiscal operations of the City of Lansing including accounting, purchasing, budget preparation and monitoring, investment and debt management, reporting and audit compliance, financial projections and analysis, fringe benefits, and retirement funds
» Serves as the City of Lansing's chief spokesperson regarding City finances and City policy to the City Council and other local community officials
» Prepare financial forecasts, budgetary assessments, and fiscal policy recommendations
» Oversees the financial management and planning and acts as the Mayor's representative in various arenas for the City
» Develops or acquires financial systems for the City to ensure that fiscal management of the City's resources is accomplished in the most cost-effective, efficient manner, consistent with legal and regulating requirements
» Seasoned municipal administrative professional, experienced in tasks necessary for local governments, served as the chief executive for Shelby, MI
» Extensive experience working in local, regional, and state government with a focus on administrative, communications, community outreach, municipal finance, and operational functions
» Oversaw day to day operations of local government
» Experience leading 15 plus individuals
» Experience building diverse and sustainable communities throughout Michigan
» Development of public policies and local ordinances
» Review and evaluate complex municipal government budgets, cash flows, and other financial reports
» Recommends alternative strategies and financial and operational structuring to maximize allocated budget resources for municipal government
» Formally responsible for analyzing trends, compiling local government data, and preparing reports for long-range strategic planning and recommendations for state support directly to local governments at the Michigan Department of Treasury (Treasury)
» Experience managing multiple complex projects from conception to completion
» Ability to adapt to diverse and ever-changing work conditions
» Excellent team player and ability to work independently
» Served as the communications and social media liaison for the Bureau of Local Government and School Services within Treasury where I developed and maintained daily social content strategies, promoting statewide Treasury news
» Experience fostering strong community relations

WORK EXPERIENCE

Finance Director, City of Lansing, Ingham County, MI — Aug. 2020 – Present
Village Manager, Village of Shelby, Oceana County, MI — June 2018 – Aug. 2020
Departmental Analyst, Bureau of Local Government and School Services, Michigan Department of Treasury — June 2014 – June 2018
Co-Chair, Clayton Township Planning Commission, Charter Township of Clayton — May 2015 – June 2018
Treasurer, Genesee County Planning Commission Metropolitan Alliance, Charter Township of Clayton — Jan. 2013 – June 2018
» Jan. 2013 to Mar. 2017 served as Trustee; part-time
President and Police Commissioner, Village of Lennon, Lennon, Michigan — Sep. 2009 – Feb. 2017
» Sep. 2009 to Nov. 2016 served as Councilman for the Village
Intern, Office of Fiscal Responsibility, Michigan Department of Treasury — Jan. 2014 – May 2014

VOLUNTEER EXPERIENCE

Shelby Optimist Club Member, Optimist International — Nov. 2018 – Present
Vice-President, Oceana County Economic Alliance, 501(c)(3) — Jan. 2019 – Aug. 2020
Shelby Rotary Club Member, Rotary International — July 2018 – Aug. 2020
Founding Member, Shelby Roars, Shelby, Michigan — Aug. 2018 – Aug. 2020

EDUCATION

Bachelor of Business Administration (BBA), University of Michigan – Flint, School of Management — Feb. 2012 – May 2014
» **Concentration in Accounting**, GPA of 3.19
» **Beta Alpha Psi**, International Honor Organization for Financial Information Students and Professionals
Business Transfer, Mott Community College, Flint, Michigan — Sept. 2008 - Apr. 2012

HARD SKILLS

» BS&A and OneSolution
» Budget Development and Implementation
» Budgetary Assessments
» Community Marketing
» Economic Development
» Fiscal policy recommendations
» Microsoft Office Suites and Google Apps
» Policy and Ordinance Development
» Project Management

SOFT SKILLS

» Adaptable
» Attention to Detail
» Collaboration
» Community Outreach and Communication
» Effective Communication
» Problem Solving
» Punctuality
» Self-Management
» Time Management

ROBERT WIDIGAN TERMS OF APPOINTMENT

The Mayor of the City of Flint hereby appoints **Robert Widigan** as Chief Financial Officer in accordance with the provisions of Flint City Charter §§4-203(D) & 1-501.

1. **Scope of Services**: Under the general supervision of the Mayor and City Administrator, the Chief Financial Officer duties shall include those enumerated for the Chief Financial Officer in the Flint City Code of Ordinances, Chapter 2, Article XV, Department of Finance, the Chief Financial Officer Job Description and other duties that shall from time-to-time be required, in the absolute discretion of the Mayor, or his designee and; she shall be subject to all work rules and policies established by the City of Flint.

2. **Term of Appointment:** This appointment shall commence on April 15, 2021, 2021 and shall continue at the will of the Mayor.

3. **Compensation:** The Chief Financial Officer shall be paid a salary based on an annual compensation rate of One-Hundred and Forty-Eight Thousand Dollars ($135,000.00/$64.90 hourly rate). This salary shall be payable in regular timely installments, in the same manner as other employees of the City of Flint are paid. Such earnings shall be paid from account 101-191.100-703.000 ($91,967.90), Wages & Salaries and account 296-172.100-703.000 (LCSM-17-FRTA) ($43,032.10) with the difference in compensation between the Interim Chief Financial Officer and Chief Financial Officer made retroactive to August 16, 2021. The funding from the Mott Capacity Grant is contingent upon the availability of the funding. In the event, that the funding from the Mott Capacity Grant is no longer available, the salary will be reduced to $91,967.10 unless other funding sources subsequently supplement the $43,032.10.

4. **Benefits:** The Chief Financial Officer will be provided with fringe equal to those now or hereinafter provided for an exempt employee allocated above Level 23 including, but not limited to health care coverage, dental insurance, life insurance, personal time off, holiday pay, etc.; but expressly excluding membership in the Civil Service System. However, the Chief Financial Officer shall be eligible to participate in the City of Flint Hybrid Pension Plan as provided to other appointed officials, which may change from time-to-time. The Chief Financial Officer shall be 100% vested at all times, with respect to his own contributions.

For the purposes of providing to the Chief Financial Officer the above compensation and fringe benefits, the City of Flint shall place the Chief Financial Officer on the City's regular payroll so that all of said compensation and fringe benefits shall be provided to the Chief Financial Officer in the same manner as other employees of the City of Flint.

5. **Indemnification and Insurance:** The City of Flint shall indemnify and provide appropriate insurance coverage for the Chief Financial Officer for any attorney's fees, reasonable costs, and damage awards incurred by the Chief Financial Officer as a result of any malpractice action brought against him by any person as a result of his performance of duties pursuant to his Appointment. To the fullest extent permitted by law, the City of Flint shall defend, pay on behalf of, indemnify and hold harmless the Chief Financial Officer against any and all claims, demands, suits, or losses, including, but not limited to, civil rights actions, and providing for all costs connected therewith, and for any damages which may be asserted, claimed, or recovered against or from the Chief Financial Officer by reason of any injuries or damages including losses

that may arise as a result of his acts, omissions, faults or negligence in connection with the performance of the terms of his appointment. The City of Flint shall provide appropriate insurance coverage, although, the full indemnification of the Chief Financial Officer as articulated above shall not be in any way limited by the insurance coverage chosen by the City of Flint.

6. **Termination:** The City may terminate, without cause, this Agreement (and the resultant employment relationship) with the Chief Financial Officer before the expiration set forth herein. In the event that this Agreement is terminated without Good Cause, the Chief Financial Officer shall be entitled to accrued PTO.

The City may terminate, for Good Cause, this Agreement (and the resultant employment relationship) with the Chief Financial Officer before the expiration set forth herein. In the event that this Agreement is terminated with Good Cause, the Chief Financial Officer shall be entitled to accrued PTO.

The Chief Financial Officer may voluntarily terminate this Agreement before the expiration of the term set forth herein by providing fourteen (14) days advanced written notice, unless agreed upon otherwise by the Parties. In the event that this Agreement is terminated pursuant to this subsection, the Chief Financial Officer shall be entitled to accrued PTO.

"GOOD CAUSE". For purposes of this Agreement the term "good cause" is defined as sole proven acts or omissions as follows:

A. Any willful, knowing, grossly negligent, or negligent breach, disregard or habitual neglect of any provision of this Agreement, or any willful, knowing, grossly negligent, or negligent breach, disregard or habitual neglect of any duty or obligation required to be performed by the Chief Financial Officer under this Agreement or applicable law.

B. Any misconduct of the Chief Financial Officer involving an act of moral turpitude, criminal illegality (excepting minor traffic violations), or habitual violations of the traffic laws, whether or not related to the Chief Financial Officer's official duties hereunder.

C. Any willful, knowing, grossly negligent, or negligent misapplication or misuse, direct or indirect, by the Chief Financial Officer, of public or other funds or other property, real, personal, or mixed, owned by or entrusted to the City, any agency or corporation thereof, or the Chief Financial Officer in his official capacity.

7. **Waiver of Claims:** Appointee agrees, in consideration for accepting payment pursuant to this Agreement, that Appointee will not file a lawsuit or claim of any type in any forum against the City for actions arising in any way related to employment by the City, and that if Appointee does, the lawsuit or claim will be immediately dismissed; and, notwithstanding the fact that the terms of this Agreement shall otherwise remain in full force and effect, Appointee will return to the City all of the consideration received from the City as a result of this Agreement, and Appointee will pay to the City all of the costs, expenses, and attorney fees incurred by the City in defending against such a lawsuit or claim. However, nothing in this

Agreement shall prevent Appointee from filing suit to challenge this Agreement or to enforce the terms of this Agreement.

8. **Whole Agreement:** Any additions, deletions or modifications to these terms of appointment must be in writing and signed by both parties. This document, consisting of three (3) pages in its entirety, embodies the entire agreement between the parties hereto.

Dated this _____ day of August 2021.

APPOINTEE:

_____
Robert Widigan

FOR THE CITY:

_____
Sheldon A. Neeley, Mayor

APPROVED AS TO FORM:

_____
Angela Wheeler, Chief Legal Officer

S:\AWO\Terms of Appointment\Robert Widigan\2021.08.02 (Permanent) Widigan Terms of Appointment Chief Financial Officer.doc

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 Lottie Ferguson (Sep 15, 2021 16:04 EDT)
(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.

CITY OF FLINT

The designated appointee has either lived or worked within the Flint community during the Flint Water Crisis and have expressed interest and knowledge concerning lead in drinking water. Appointee's resume is attached.

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.

FINANCIAL IMPLICATIONS: There is no budget required to establish or sustain the Water System Advisory Council.

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

Dept.	Name of Account	Account Number	Grant Code	Amount
Public Health	Water System Advisory Council	N/A	N/A	$0
		FY20/21 GRAND TOTAL		**$0**

PRE-ENCUMBERED? YES ☐ NO ☐ REQUISITION NO:

ACCOUNTING APPROVAL: _____ **Date:** _____

WILL YOUR DEPARTMENT NEED A CONTRACT? YES ☐ NO x ☐
(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 $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)

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 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 B ased 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)

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

The designated appointee has either lived or worked within the Flint community during the Flint Water Crisis and have expressed interest and knowledge concerning lead in drinking water. Appointee's resume is attached.

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.

FINANCIAL IMPLICATIONS: There is no budget required to establish or sustain the Water System Advisory Council.

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

Dept.	Name of Account	Account Number	Grant Code	Amount
Public Health	Water System Advisory Council	N/A	N/A	$0
		FY20/21 GRAND TOTAL		**$0**

PRE-ENCUMBERED? YES ☐ NO ☐ REQUISITION NO:

ACCOUNTING APPROVAL: _____ **Date:** _____

WILL YOUR DEPARTMENT NEED A CONTRACT? YES ☐ NO x ☐
(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 $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)

(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
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 Lottie Ferguson (Sep 15, 2021 14:43 EDT)
(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.

CITY OF FLINT

The designated appointee has either lived or worked within the Flint community during the Flint Water Crisis and have expressed interest and knowledge concerning lead in drinking water. Appointee's resume is attached.

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.

FINANCIAL IMPLICATIONS: There is no budget required to establish or sustain the Water System Advisory Council.

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

Dept.	Name of Account	Account Number	Grant Code	Amount
Public Health	Water System Advisory Council	N/A	N/A	$0
		FY20/21 GRAND TOTAL		**$0**

PRE-ENCUMBERED? YES ☐ NO ☐ REQUISITION NO:

ACCOUNTING APPROVAL: _____ **Date:** _____

WILL YOUR DEPARTMENT NEED A CONTRACT? YES ☐ NO x ☐
(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 $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)

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
1998 & 1996	State University, East Lansing, MI
1998-2006	**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.

Koree 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 EC^{3}Friction 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 CO_2 Adsorption on Pt/CeO_2: 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 H_3PO_4/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 $Pt/CeTiO_4$", 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/CeO_2 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/CeO_2", 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, 2001**9.** "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).

NOW THEREFORE BE IT RESOLVED, that Mayor Neeley hereby appoints Wendy Braun address 2015 Crooked Lane, 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)

Lottie Ferguson (Sep 15, 2021 15:50 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.

CITY OF FLINT

The designated appointee has either lived or worked within the Flint community during the Flint Water Crisis and have expressed interest and knowledge concerning lead in drinking water. Appointee's resume is attached.

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.

FINANCIAL IMPLICATIONS: There is no budget required to establish or sustain the Water System Advisory Council.

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

Dept.	Name of Account	Account Number	Grant Code	Amount
Public Health	Water System Advisory Council	N/A	N/A	$0
		FY20/21 GRAND TOTAL		**$0**

PRE-ENCUMBERED? YES ☐ NO ☐ REQUISITION NO:

ACCOUNTING APPROVAL: _____ **Date:** _____

WILL YOUR DEPARTMENT NEED A CONTRACT? YES ☐ NO x ☐
(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 $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)

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.