



Application for Appointment to Whatcom County Boards and Commissions

Public Statement

THIS IS A PUBLIC DOCUMENT: As a candidate for a public board or commission, the information provided will be available to the County Council, County Executive, and the public. All board and commission members are expected to be fair, impartial, and respectful of the public, County staff, and each other. Failure to abide by these expectations may result in revocation of appointment and removal from the appointive position.

Title	Ms.
First Name	Elizabeth
Last Name	Lorence
Today's Date	8/18/2021
Street Address	2 Catkin Ct
City	Bellingham
Zip	98229-440
Do you live in & are you registered to vote in Whatcom County?	Yes
Do you have a different mailing address?	YES
Mailing Address	1901 18th Street E6 Bellingham, WA 98225
Primary Telephone	6317938014
Secondary Telephone	<i>Field not completed.</i>
Email Address	elizabethlorence@gmail.com
1. Name of Board or Committee	Marine Resource Committee
Marine Resource Committee Position:	Conservation/Environmental Interest
2. Do you meet the residency, employment, and/or affiliation requirements of the position for which you're applying?	Yes
3. Which Council district do you live in?	District 1

4. Are you a US citizen? Yes

5. Are you registered to vote in Whatcom County? Yes

6. Have you declared candidacy (as defined by RCW 42.17A.055) for a paid elected office in any jurisdiction within the county? No

7. Have you ever been a member of this Board/Commission? No

8. Do you or your spouse have a financial interest in or are you an employee or officer of any business or agency that does business with Whatcom County? No

You may attach a resume or detailed summary of experience, qualifications, & interest in response to the following questions [Elizabeth Lorence Resume-CV.docx](#) - attached

9. Please describe your occupation (or former occupation if retired), qualifications, professional and/or community activities, and education
I am currently employed by the Washington State Department of Agriculture as a Public Health Advisor II. I work with local growers to help them understand and comply with upcoming federal regulations under the new Food Safety Modernization Act (FSMA). Previously I worked as a research coordinator at MD Anderson Cancer Hospital while in graduate school for my MPH. Before graduate school, I worked in public water as an Environmental Scientist with the Montana State Department of Environmental Quality. I have a strong background in state and federal environmental codes and regulations and have often served as a conduit between the public, government agencies and local communities.

10. Please describe why you're interested in serving on this board or commission
During my undergraduate degree, I worked on published studies investigating the effects of pathogenic marine bacteria (*Vibrio* spp.) on symbiotic zooxanthellae algae within coral tissues, coupled with increasing sea surface temperatures. I have a broad knowledge of marine pathogens and invertebrate species. I am passionate about marine conservation, and would be thrilled to aid the Marine Resources Committee in any way I can.

References (please include daytime telephone number):
Karen Ullmann, 206-714-6125 KUllmann@agr.wa.gov
Education and Outreach Coordinator
Washington State Department of Agriculture

Krystle Nomie, PhD
Program Manager, Research Partnerships
BostonGene
919-452-4430 Krystle.Nomie@gmail.com

Katie Luther, MS
Groundwater Under the Direct Influence of Surface Water Rule Manager
State of Montana Department of Environmental Quality
406-444-4633 | Katieluther@hotmail.com

Signature of applicant: Elizabeth Lorence

Place Signed / Submitted Bellingham, WA

Elizabeth Lorence
2 Catkin Ct | Bellingham, WA | 98229
Elizabethlorenc@gmail.com
631-793-8014

Skills Summary:

- Extensive experience in the Environmental Science field
 - Strong knowledge of environmental microbiology, food, water, and soil borne pathogens, chemical contaminants, and toxicology
 - Broad knowledge of federal and state environmental codes
 - Practiced in following and developing environmental science protocols and grant and permit writing procedures
 - Proficient in Excel, Access, Stata, EndNote, RefWorks, ArcGIS, iLab, Visio, and Epic applications
 - Superior analytical and problem-solving capabilities
 - Excellent communication and writing skills
 - Intermediate level Spanish
 - CPR, Wilderness First Aid Certified, and PADI Certified Diver
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Employment History:

Public Health Advisor II - May 2018 – Present

Washington State Department of Agriculture, Bellingham, WA (Home Based)

- Scientific educator for new FDA Food Safety Modernization Act (FSMA) regulations and compliance resources
- Completes environmental risk assessments of microbiological hazards on farms, water systems, packing or storage houses
- Assesses analytical data to streamline inspection process and inventory
- Cultivates relationships with Washington growers through educational outreach, one-on-one meetings, and public health events
- Works with industry and government stakeholders to help facilitate the implementation of a new inspection paradigm

Research Coordinator - March 2016 – March 2018

MD Anderson Cancer Center, Houston, TX

- Principal writer and developer of experiment work plans and letters of intent for procurement of novel therapies
- Analyzed and interpreted laboratory, environmental, and epidemiological data for publication
- Authored detailed reports, grants, and publications for multimillion-dollar projects while simultaneously managing numerous in-depth assignments
- Collaborated with numerous layers of government and coordinated funding and budgeting
- Restructured and updated hiring practices for interns and mentored students

Environmental Science Specialist – August 2013 – January 2016
State of Montana Department of Environmental Quality, Helena, MT

- Performed in-depth environmental and technical risk assessments of over 200 public water systems and treatment processes to ensure they met State and EPA regulations
- Completed water sampling, microbial risk assessments, technical assistance, and microparticulate analyses of over 100 water supplies
- Utilized a multidisciplinary approach to permit, mitigate and remediate deficiencies and hazards
- Trained water operators in state and EPA regulations and microbiology and water chemistry to prepare them for qualifying state exams

Environmental Health and Safety Supervisor - May 2012- May 2013
Marlow, Inc., Brooklyn, NY

- Developed health and safety plans and led weekly assessments at 4-5 restaurant group establishments
- Trained all restaurant employees on proper food handling, safety, health codes, and environmental regulations
- Executed restaurant and environmental permitting, and guided employees on restaurant start-up procedures
- Succeeded in opening a new restaurant that meets health, fire, and building department standards for the restaurant group

Public Health Sanitarian – October 2009- May 2012

New York City Department of Health and Mental Hygiene, New York, NY

- Performed comprehensive environmental health assessments and microbial source tracking on over 4,000 food service establishments in New York City
- Primary individual who analyzed, reviewed, and edited all Hazard Analysis Critical Control Point (HACCP) plans within the department
- Wrote detailed reports and violations to withstand legal review in the NYC Health Tribunal
- Mentored and trained business operators, local community members, and new health department employees about foodborne diseases and public health risk

Lab Manager/Research Technician - February 2008-February 2009

New York University Langone Medical Center- Skirball Institute of Biomolecular Medicine, New York, NY

- Lead researcher, conducted DNA bacterial Cloning with plasmid vectors, and performed all other molecular diagnostic techniques
- Ordered and maintained all laboratory equipment, tissue cultures, and 1,000+ mouse colony
- Mentored and trained employees, authored and presented all publications and research

Research Assistant - October 2005-December 2007

Pace University, New York, NY

- Lead student researcher, maintained all bacterial and algal cell cultures and prepared all media
 - Ordered, operated, and maintained laboratory equipment
 - Wrote and edited manuscripts and citations for publication and presentation
-

Publications/Conferences:

1. Cervino, J.M.¹, McClanahan J.M.², Lorence, E.A.², Thompson, F.³, Goreau, T.J.⁴, Ben-Haim, Y.⁵, Hayes, R.L.⁶, Smith, G.W.⁷. *Vibrio Infection Intensifies Following Thermal Stress on Zooxanthellae CLADE Species in Culture and in the Pacific Anemone Stichodactyla sp.* American Society of Microbiology, 106th ASM General Meeting, Orlando, FL, May 2006.
2. Lorence, E.A.¹, Cervino, J.M.¹. *Identification of Vibrio species and the Links between thermal stress, Coral Reef and shell-fish Diseases.* Vibrio 2007: The Biology of Vibrios, Institut Pasteur, Paris, November 2007.
3. Cervino, J.M.,¹ Lorence, E.A.,¹ Thompson, F.L.³ *The Pathogenic Effects of Vibrio species on Clonal Symbiodinium CLADE sub-types In Vitro.* American Society of Limnology and Oceanography, Ocean Sciences Meeting, Orlando, FL, March 2008.
4. Cervino, J.M.^{1,2}, Lorence, E.L.³, Thompson, F.L.⁴, Hughen, K.⁵, Kneeland, J.⁶, Smith, G.⁷. *Heat-induced toxin production in Vibrio species associated with Yellow Band Disease.* International Coral Reef Symposium, 11th ICRS Ft. Lauderdale, FL, July 2008.
5. Cervino, J.M.¹, Thompson, F.L.², Gomez-Gil, B.³, Lorence, E.A.⁴, Goreau, T.J.⁵, Hayes, R.L.⁶, Winiarski-Cervino, K.B.⁷, Smith, G.W.⁸, Hughen, K.⁹ and Bartels, E.¹⁰. *The Vibrio Core Group Induces Yellow Band Disease in Caribbean and Indo-Pacific Reef Building Corals.* Journal of Applied Microbiology. 2008. Volume 105, Issue 5, Pages 1658-1671.
6. Ahmed, M.¹, Lorence, E.², Hui, G.³, Huang, S.⁴, Liu, Y.⁵, Lopez, E.⁶, Wang, J.⁷, Zhang, V.⁸, Nomie, K.⁹, Zhang, L.¹⁰, Wang, M.¹¹. *Targeted Sequencing of Mantle Cell Lymphoma Reveals Opportunities for Therapeutic Stratification.* Advances in Genome Biology and Technology. Precision Health Meeting, Scottsdale, Arizona, September 2017.
7. Balaji, S.¹, Ahmed, M.² Lorence, E.³, Fangfang Y.⁴, Nomie, K.⁵, Wang, M.⁶. *NF-κB signaling and its relevance to the treatment of mantle cell lymphoma.* Journal of Hematology & Oncology. November 2018.
8. Ahmed, M.¹ Lorence, E.², Hui, G.³, Huang, S.⁴, Zhang, V.⁵, Zhang, H.⁶, Zhang, L.⁷, Nomie, K.⁸, Wang, M.⁹. *Abstract 1981: Pan-cancer pathways gene expression profiling in mantle cell lymphoma reveals upregulation of DNA damage repair genes in ibrutinib-resistant tumor.* June 2018. Cancer Research 78(13 Supplement):1981-1981.
9. Makdum, A.¹, Lorence, E.¹, Wang, J.², Jung, D.⁴, Zhang, L.⁵, Nomie, K.⁶, Wang, M.⁷. *Interrogating B Cell Signaling Pathways: A Quest for Novel Therapies in Mantle Cell Lymphoma.* Science Signaling. 05 Feb 2019: Vol 12, Issue 567.

Research Experience:

Identification of closely related novel type Vibrio species from Caribbean and Pacific Oceans: An investigation of links between thermal stress, bacterial rate of spread, and coral and shellfish diseases.

James Cervino Ph.D.

- Pace University Laboratory New York, New York
- MOTE Marine Laboratory Summerland Key, Florida
- Marine Biological Laboratories (MBL) Woods Hole, Massachusetts

Diseases of Corals and Other Reef Organisms

Esther C. Peters, Ph.D., Robert B. Jonas, Ph.D. and Thomas R. Cuba, Ph.D.

- MOTE Marine Laboratory Summerland Key, Florida

Molecular Implications for Impaired Akt Signal Transduction in Depression

Thomas Franke Ph.D., M.D.

-New York University, Skirball Institute of Biomolecular Medicine

Novel Therapies in B-Cell Lymphomas

Michael Wang, M.D.

Mantle Cell Lymphoma/Myeloma Dept.

-University of Texas MD Anderson Cancer Center

Education:

The University of Texas Health Science Center at Houston, Houston, TX - Graduated- December 2017

Master's in Public Health- Environmental Health Science

Pace University, New York, NY - Graduated - December 2007

Bachelor's in Biology/Microbiology