



CLERK OF THE BOARD DIVISION  
OF THE BOARD OF SUPERVISORS' OFFICE

## COUNTY OF HUMBOLDT

825 FIFTH STREET  
EUREKA, CALIF. 95501-1153

PHONE (707) 476-2384; 445-7299 (FAX)

### APPLICATION TO SERVE ON THE HUMBOLDT COUNTY

### PLANNING COMMISSION

APPLICANT NAME: Lorna McFarlane

MAILING ADDRESS: McKinleyville, Ca 95519

TELEPHONE: Home: \_\_\_\_\_ Work: \_\_\_\_\_ Fax: \_\_\_\_\_

E-MAIL ADDRESS: lorna.mcfarlane@dot.ca.gov

OCCUPATION: Senior Environmental Scientist

PERSONAL REFERENCES:

(1) Brandon Larsen PHONE: \_\_\_\_\_

(2) Kevin Church PHONE: \_\_\_\_\_

PRIOR ADVISORY BOARD OR BOARD OF DIRECTORS EXPERIENCE?  NO  YES

PLEASE WRITE A BRIEF STATEMENT DESCRIBING WHY YOU'RE INTERESTED IN SERVING ON THE **PLANNING COMMISSION**.

I would like to serve on the Humboldt County Planning Commission as I have strong background in transportation policy, environmental management, and climate change science. In my current position with Caltrans, I have been working at the interface of transportation needs, local government goals and future wishes. I have found this portion of my work to be particularly interesting and I think I could play a critical role in helping Humboldt County develop future sustainable plans that will both allow for the economic growth of our area while simultaneously preserving the natural resources and characteristic feel of our beloved County. Our County faces many pressures at the moment including climate change, a housing crisis, a shortage of some critical services, and potential for significant population and economic growth. While these pressures could pose significant threats to our community, I truly believe that if managed correctly our County stands to prosper immensely

PLEASE ATTACH A CURRENT RESUME.

DATE: 01/31/24 SIGNATURE: Lorna McFarlane

I declare under penalty of perjury under the laws of the State of California that the above is true and correct

SUBMIT THIS APPLICATION TO:

HUMBOLDT COUNTY PLANNING COMMISSION, Clerk of the Board, 825 Fifth Street, Suite 111,  
Eureka, CA 95501-1153.

DATE TO SUPERVISOR \_\_\_\_\_ DATE APPROVED \_\_\_\_\_ NOT APPROVED \_\_\_\_\_

## *Lorna J. McFarlane, M.Sc.*

McKinleyville, CA 95519

[lorna.mcfarlane@dot.ca.gov](mailto:lorna.mcfarlane@dot.ca.gov)

Mobile

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### Education

- 2014–16 M.S., Biology; *California State University, Northridge (CSUN)*  
Thesis: Predicting the metabolic response of *Zebrasoma scopas* (Brush tail tang) to warming waters  
Advisor: Dr. Larry G. Allen
- 2008–12 B.A., Biology; Minor, Environmental Studies, *Randolph College, Lynchburg, VA.*  
Thesis: Most prevalent effects of frontal lobe damage from traumatic brain injury  
Advisor: Dr. Douglas Shedd

### Work History

- 2023 – Senior Environmental Scientist, Climate Change Adaptation Branch Supervisor
- Current *CA Department of Transportation, Eureka, CA*  
Planning section unit. Work to incorporate climate adaptation strategies into current and future programmed projects. Identify vulnerable assets, work with all functional units to design a solution, and find project funding. Ensure Department is using the most up to date climate science and modeling to account for future climate pressures
- 2020 – Senior Environmental Planner, CA Coastal Commission Liaison
- 2023 *CA Department of Transportation, Eureka, CA*  
North region Environmental Management Unit. Worked as primary contact between Caltrans North Region Environmental and the local Coastal Commission office, and lead worker to staff with projects in the Coastal Zone. Examples of workload include:
- Organizing and completing all climate change review for project environmental documents based on HQ guidance
  - Present projects (active permit applications, project updates) to the Coastal Commission
  - Meet with Commissioners for ex-parte project updates and to facilitate Caltrans
  - policy meetings
  - Overseeing mitigation bank creation with contractor and resource agencies for one year until a mitigation supervisor was hired
  - Working with multiple resource agencies to address legacy outstanding eelgrass mitigation, and to create an early mitigation opportunity for new projects
  - Facilitating at least monthly coordination meetings with, and project updates to Commission Staff
  - Supervision of CA Sea Grant Fellow—Coastal Policy. Past Fellows now work for NOAA and the US EPA
  - Creation of FAQ manual for staff to use when working on coastal projects
  - Permitting major damage and emergency projects
- 2017– Marine Biology Professor, *Pitzer College Study Abroad, Bocas Del Toro, Panama*
- 2023 Taught (2019, 2020, 2022, 2023) or Assisted Dr. Baduini (2017) in a field marine biology course. Work included assisting students with individual research projects including basic experimental design, in water field supervision including dawn lionfish collection, daily lectures, assisting students with questions outside of lecture, giving graduate school and careers outside of academia advice, and helping to ensure a safe, positive and fun experience

2019 – Associate Environmental Planner, Water Quality Specialist

2020 CA Department of Transportation, Eureka, CA

Environmental Engineering Unit. This was an in-place promotion and my workload built on my previous workload as an environmental planner.

Additional tasks included:

- Lead biologist/coordinator on securing California Department of Fish and Wildlife (CDFW) and Coastal Commission Approval for an eelgrass study done through the CA Sea Grant as acceptable mitigation for the Humboldt Bay Bridges project
- Working at a Senior level to address the special conditions in the Eureka-Arcata Corridor Coastal Development permit including overseeing a Senior Humboldt State University (HSU) Practicum class to create a “State of Sea Level Rise Planning in Humboldt Bay” report; recruiting a graduate student from the HSU geology department to create a vulnerability analysis
- Worked with CDFW and the North Coast Regional Water Quality Control Board (NCRWQB) to purchase and preserve a fen near Highway 36 as mitigation
- The creation of a CA Sea Grant Fellowship within Caltrans including management approval, application and contract submittal and management, and supervising the Fellow to ensure appropriate trainings and a full workload.
- Obtained Small Habitat Restoration Water Quality Certifications for fish passage
- Submitted notices of discharges to the North Coast Regional Waterboards
- Submitted draft permit language for the Caltrans NPDES permit to the State Water Resources Control Board
- Presenting at the International Conference on Ecology and Transportation on the benefits of wildfire fuel reduction to water quality
- Presenting at the CDFW Conservation Lecture Series
- Interviewing and hiring a Student Assistant

2018 Environmental Planner, CA Department of Transportation, Eureka, CA.

Environmental Engineering Unit. Water quality specialist working on stormwater quality issues from avoidance to mitigation for projects with water quality impacts. Additional work on 401 permits, eelgrass mitigation, unit workload and project management, fuel reduction crediting, fish passage, and talent recruitment through California Sea Grant.

2017 – Environmental Scientist, CA State Water Resources Control Board, Sacramento, CA.

2018 Standards Unit I. Worked as the lead staff on the proposed Aquatic Toxicity Provisions to be adopted 2019. Duties include consultation with U.S. EPA and stakeholders, CEQA analysis, project management, staff report writing, facilitating public outreach and briefing management and board members. Additional work on:

- Technical advisory panel for ballast water treatment in coordination with the State Lands Commission
- Renewal of the U.S.EPA Vessel General Permit
- Marine finfish aquaculture permit in coordination with CDFW
- Grant review and scoring
- Administrative Record and response to comments for the Mercury Amendments. Resulted in an award from the Board after adoption.
- Authored a white paper— Regional Method Comparison on Pyrethroid Use

- 2017 CA. Sea Grant Fellow, State Water Resources Control Board, Sacramento, CA  
Ocean Unit. Worked as project coordinator and environmental scientist on Mercury Amendments, and assisted in the Board adoption process of the Mercury Policy.
- 2016 Reef Ecology Lecturer and Dive Master, Operation Wallacea Sodwana Bay, South Africa  
Lead daily dives and lectures for college students on field ecology courses.
- 2015-16 Graduate Assistant and Teaching Associate, CSUN, CA.  
CSUN courses: Life in the Sea, Intro. Biology Lab, Microbiology, Animal Physiology (2015-16).
- 2013–14 Laboratory Technician, University of Southern California, Los Angeles, CA  
Cared for and bred transgenic zebrafish including: injecting embryos, cryopreservation, laboratory coordination, maintenance of records and equipment, water quality maintenance.

### Professional Presentations

- McFarlane, L. J., Arevalo A.A. 2019. Wildfires and Water Quality- Caltrans efforts to reduce the frequency and severity of wildfires by partnering with agencies like the Waterboards, to also meet our responsibility related to impaired water bodies. *CDFW Conservation Lecture Series, Sacramento, CA* [oral]
- McFarlane, L. J., Arevalo A.A. 2019. Striking a balance between wildfires and water quality with state agency collaboration. *International Conference on Road Ecology, Sacramento, CA* [oral]
- McFarlane, L. J., R. E. Espinoza, W. A. Bennett, and L. G. Allen. 2015. It's getting hot in here: the effects of warming waters on the metabolic rates of Brushtail Tang. *Western Society of Naturalists, Sacramento, CA* [poster]
- McFarlane, L. J. 2014. The effects of sea bird guano on primary productivity of local kelp, *Eisenia arborea*. *Wrigley Institute for Environmental Studies, Santa Catalina Island, CA* [oral]
- McFarlane, L. J., Barkman, M. A, 2011. Do Flamingo Tongue, *Cyphoma gibbosum*, exhibit location preface on Caribbean coral? *Gerace Research Center, San Salvador, Bahamas* [oral]

### Certifications and Trainings

#### *Water Quality and Biological Resources*

Environmental Academy, Design Construction Maintenance, Improving Coastal Resiliency through Vulnerability Assessments Intro and Advanced CEQA, ArcGIS Esri Technical Certification (in progress), Foothill Yellow Legged Frog Surveying, Point Arena Mountain Beaver Surveying, Wetland Delineation, Measuring the Health of Streams and Rivers in CA, College of Bioassessment Field Course, Toxicity Data Analysis, Agrochemical Transport and Fate in Surface Water and Ground Water

#### *Policy*

U.S.EPA NPDES Permit Writers Course, U.S. EPA NPDES Whole Effluent Toxicity Online Training, Cal EPA Aquatic Toxicity Training, Understanding the Sacramento San Joaquin Delta—An Overview of Delta Governance and Regulation, Basic TMDL Development, Adoption and Approval, Water Quality Standards and Water Quality Control Plans

#### *Other*

PADI Dive Master and Rescue Diver, American Heart Association CPR and AED for Health Care Providers, Divers Alert Network O<sub>2</sub> Administration, California Boating Safety, Emergency Medical Technician, Professional Writing, Advanced Meeting Facilitation

### Awards and Honors

- 2017 Outstanding Achievement Award, *CA State Water Resources Control Board, Cal EPA*
- 2016 Sea Grant Knauss and State Fellowship Finalist, *CA Sea Grant*
- 2012 TriBeta National Biology Honor Society
- 2009–12 Excellent Writer Award, *Randolph College*
- 2011–present Girl Scout Gold Award, Lifetime Member

### Additional Work History

- 2016 Science Writer, *Myletter.to, Remote*  
Contributing writer to a website which assists the public contacting State and Federal representatives.
- 2016 Dive Master and Sales, *EcoDive, Culver City, CA*  
Lead divers on Southern California dives and work in diving equipment sales.
- 2012–13 Veterinary Technician, *Advanced Veterinary Care Center, Lawndale, CA*  
Treated emergency and specialty patients in oncology, cardiology, and internal medicine
- 2012 Wildlife Care/Veterinary Intern, *California Wildlife Center, Calabasas, CA*  
Treated and rehabilitated native wildlife ranging from raptors to coyotes.
- 2010 Equine Veterinary Intern, *Allaroud Equine Veterinary Care, Bedford, VA*  
Assisted with emergency and routine medical care, and office management

### Research Experience

- 2016 Marine Ecology and Fish Physiology, *CSUN, CA. and Indonesia*
- 2014 Marine Ecology Research, *CSUN, Catalina Island, CA*
- 2014 Sea Bird Ecology Research, *CSUN, Catalina Island, CA*
- 2012 Microbiology Lab Assistant, *Randolph College, VA.*
- 2011 Tropical Ecology Field Assistant, *Pitzer College Firestone Reserve, Costa Rica*
- 2011 Ecology Lab Assistant, *Randolph College*

### References

Brandon Larsen- *Deputy Director of Planning and Local Assistance, District 1, California Department of Transportation (Caltrans)*

brandon.larsen@dot.ca.gov

Kevin Church- *Retired Senior Transportation Engineer, California Department of Transportation (Caltrans)*  
*Current engineer, Ghirardelli Associates*

kchurch@ghirardelliassoc.com

Dr. Debra Denton- *Environmental Scientist, U.S.EPA Region 9*

debra.denton@waterboards.ca.gov

Zane Poulson- *Senior Environmental Scientist, CA State Water Resources Control Board*

zane.poulson@waterboards.ca.gov

Dr. Robert Espinoza- *Professor and Special Assistant to the Dean, CSUN*

robert.e.espinoza@csun.edu