

Application Form

Profile

Thomas

First Name

L D

Middle Initial

Fenster

Last Name

Home Address

Suite or Apt

RICHMOND

City

CA

State

94801

Postal Code

Primary Phone

Email Address

[District Locator Tool](#)

Resident of Supervisorial District:

District 1

Ecdysis Foundation

Employer

PhD Student and Project Leader

Job Title

Length of Employment

4 years

Do you work in Contra Costa County?

Yes No

If Yes, in which District do you work?

How long have you lived or worked in Contra Costa County?

1 year

Are you a veteran of the U.S. Armed Forces?

Yes No

Board and Interest

Which Boards would you like to apply for?

Integrated Pest Management Advisory Committee: Submitted

Seat Name

Public Member

Have you ever attended a meeting of the advisory board for which you are applying?

Yes No

If Yes, how many meetings have you attended?

Education

Select the option that applies to your high school education *

High School Diploma

College/ University A

Name of College Attended

Pomona College

Degree Type / Course of Study / Major

Environmental Analysis - Policy Emphasis

Degree Awarded?

Yes No

College/ University B

Name of College Attended

California State University East Bay

Degree Type / Course of Study / Major

Master of Science - Biology

Degree Awarded?

Yes No

College/ University C

Name of College Attended

University of California, Davis

Degree Type / Course of Study / Major

Current PhD student in the Horticulture and Agronomy Program with an agroecology focus

Degree Awarded?

Yes No

Other Trainings & Occupational Licenses

Other Training A

Certificate Awarded for Training?

Yes No

Other Training B

Certificate Awarded for Training?

Yes No

Occupational Licenses Completed:

Qualifications and Volunteer Experience

Please explain why you would like to serve on this particular board, committee, or commission.

I think I could add some useful insights into the way Contra Costa County can integrate a holistic IPM approach across County property.

Describe your qualifications for this appointment. (NOTE: you may also include a copy of your resume with this application)

I'm a research scientist exploring how our agricultural landscapes can be agroecologically intensified, while maintaining or improving productivity. Part of my Master's research examined IPM strategies in Almond orchards and part of my PhD research is looking at IPM strategies in vineyards. I have also conducted research in rangelands, but that research had an emphasis on carbon sequestration.

[Upload a Resume](#)

Would you like to be considered for appointment to other advisory bodies for which you may be qualified?

Yes No

Do you have any obligations that might affect your attendance at scheduled meetings?

Yes No

If Yes, please explain:

It is possible I may have to conduct field work during the March meeting.

Are you currently or have you ever been appointed to a Contra Costa County advisory board?

Yes No

If Yes, please list the Contra Costa County advisory board(s) on which you are currently serving:

If Yes, please also list the Contra Costa County advisory board(s) on which you have previously served:

List any volunteer or community experience, including any advisory boards on which you have served.

Community outreach team member and coordinator for the Alameda County Waste Management Authority (2013-2019). Engagement with commercial farms on ways to increase the sustainability and resiliency of their operations.

Conflict of Interest and Certification

Do you have a familial or financial relationship with a member of the Board of Supervisors? (Please refer to the relationships listed under the "Important Information" section below or Resolution No. 2021/234)

Yes No

If Yes, please identify the nature of the relationship:

Do you have any financial relationships with the County such as grants, contracts, or other economic relationships?

Yes No

If Yes, please identify the nature of the relationship:

Please Agree with the Following Statement

I CERTIFY that the statements made by me in this application are true, complete, and correct to the best of my knowledge and belief, and are made in good faith. I acknowledge and understand that all information in this application is publicly accessible. I understand that misstatements and/or omissions of material fact may cause forfeiture of my rights to serve on a board, committee, or commission in Contra Costa County.

I Agree

Important Information

1. This application and any attachments you provide to it is a public document and is subject to the California Public Records Act (CA Government Code §6250-6270).
2. All members of appointed bodies are required to take the advisory body training provided by Contra Costa County.
3. Members of certain boards, commissions, and committees may be required to: (1) file a Statement of Economic Interest Form also known as a Form 700, and (2) complete the State Ethics Training Course as required by AB 1234.
4. Meetings may be held in various locations and some locations may not be accessible by public transportation.
5. Meeting dates and times are subject to change and may occur up to two (2) days per month.
6. Some boards, committees, or commissions may assign members to subcommittees or work groups which may require an additional commitment of time.
7. As indicated in Board Resolution 2021/234, a person will not be eligible for appointment if he/she is related to a Board of Supervisors' member in any of the following relationships:
 - (1) Mother, father, son, and daughter;
 - (2) Brother, sister, grandmother, grandfather, grandson, and granddaughter;
 - (3) Husband, wife, father-in-law, mother-in-law, son-in-law, daughter-in-law, stepson, and stepdaughter;
 - (4) Registered domestic partner, pursuant to California Family Code section 297;
 - (5) The relatives, as defined in 1 and 2 above, for a registered domestic partner;
 - (6) Any person with whom a Board Member shares a financial interest as defined in the Political Reform Act (Gov't Code §87103, Financial Interest), such as a business partner or business associate.

Tommy Fenster

EDUCATION

University of California, Davis—Davis, CA

Current GPA: 3.92/4.0

PhD in Horticulture and Agronomy (Department of Plant Sciences): Expected May 2025

California State University East Bay—Hayward, CA

GPA: 3.98/4.0

Master of Science in Biological Sciences: May 2021

Pomona College — Claremont, CA

GPA: 3.55/4.0

Bachelor of Arts in Environmental Analysis: May 2011

4-year Varsity Football participant. 3-year starter at cornerback, Selected to the SCIAC Academic All-League Football Team for the 2007, 2008, 2009, and 2010 football seasons, 2011 inductee into the National Football Foundation Hampshire Honor Society, Sustainability Action Fellow

Relevant Experience

PhD Student with the Ecdysis Foundation and the Gaudin Lab at UC Davis: Estelline, SD & Davis, CA 06/2021-Present

- Quantify multifunctional outcomes of sheep grazing along a regenerative-conventional co-management gradient in California's vineyards and orchards
- Utilize a systems-level approach to quantify the interactions occurring among the chemical, physical, biological, and economic components of vineyard systems
- Establish and maintain relationships with private producers, government agencies, and non-profit organizations to conduct research and do outreach events

MS Student with the Ecdysis Foundation, the Oikawa Lab at Cal State East Bay, and the Lawrence Berkeley National Lab: Estelline, SD, Hayward, CA, and Berkeley CA 08/2017- 06/2021

- My primary advisors were Dr. Jon Lundgren who heads [Ecdysis Foundation](#), Dr. Oikawa at Cal State East Bay, and Dr. Housen Chu at Lawrence Berkeley National Lab
- My thesis compared eight regenerative and eight conventional almond orchards at the systems level. It examined differences in total soil carbon and nitrogen 0-6,000 Mg ESM layer (~0-60cm), water infiltration, bulk density, microbial biomass and diversity, epigeal invertebrate biomass and diversity, pest damage, almond nutrient density, and profitability
- Established and maintained relationships with private producers, to conduct research and do outreach events at those farms
- Led a team of three undergraduates to complete field and lab work pertaining to my projects
- Dr. Oikawa's lead graduate student for our lab's role on the following project: Working Lands Innovation Center (WLIC) —Catalyzing Negative Carbon Emissions
- For the WLIC project worked with Dr. Oikawa and Dr. Chu to wire and build the eddy covariance tower and to monitor the differences in CO₂, H₂O, between the compost amendment treatment footprint and the control footprint

Community Outreach Team Member for [StopWaste](#): Oakland, CA, 09/2013-May 2019 (Until July 2017 when I began graduate school, I was the **outreach coordinator**.)

- Partnered with urban agriculture groups in Alameda County to lead community workshops on composting and its benefits with regards to building soil health, decreasing irrigation, and combating climate change
- Provided Alameda County urban agriculture groups with technical assistance with regards to establishing on farm composting operations and building healthy soil via compost, cover cropping, and crop rotations
- Conceived and initiated StopWaste' Alameda County [urban farm study](#). Quantified organic matter, TSC/TSN (0-45cm), microbial activity, macro/micronutrients, water infiltration, and bulk density

- Coordinated with Alameda/Contra Costa County UCANR Urban Agriculture Advisor, Rob Bennaton to conduct the above activities
- Instructor for the StopWaste Environmental Educator Training program
- Led and organized community workshops on sustainable landscaping regarding converting lawns to edible and native landscapes
- Moved the [Community Outreach Grant](#) program from its pilot phase (2 grantees in one year) to program status. Reviewed, administered, and managed ~12 grants per year (45 during my tenure)
- Established relationships with 122 groups, personally engaging over 17,388 people at 284 events, 138 of which have been workshops
- Trained community groups in StopWaste messaging and protocol, resulting in them engaging 42,628 individuals
- Served on the review panel for StopWaste's large grants-to-nonprofits (Grants up to 65k)
- Started the [StopWaste Instagram](#)
- Established and managed the [StopWaste murals program](#) which worked with local artists and community groups to create murals that highlight the contributions of BIPOC communities to composting and composting's link to soil health and environmental justice

Grants Awarded

- \$30,000 grant from Patagonia to complete my MS thesis project comparing regenerative and conventional almond orchards (Awarded 2/22/2019)
- \$25,000 USDA Western SARE Graduate Student Grant in Sustainable Agriculture to complete my MS thesis project comparing regenerative and conventional almond orchards (GW19-193, Awarded 8/21/2019)
- \$19,860 awarded via the Lawrence Berkeley National Lab-CSUEB Internship Program for the project- The effects of compost application on grazed grasslands' greenhouse gas budget, water budget, net primary productivity, and microbial communities (Contract No. DE-AC02-05CH11231, 06/2019-05/2020)

Manuscripts

- **Fenster, T.L.D.**, C.E. LaCanne, J.R. Pecenka, R.B. Schmid, M.M. Bredeson, K. Busentiz, A. Michels, K.D. Welch, J.G. Lundgren. Defining and validating regenerative farm systems using a composite of ranked agricultural practices. Faculty1000 Research
- **Fenster, T.L.D.**, P.Y. Oikawa, and J.G. Lundgren. Regenerative almond production systems improve soil health, biodiversity, and profit. *Frontiers in Sustainable Food Systems*
- **Fenster, T.L.D.**, H. Chu, and P.Y. Oikawa. The effects of compost application on grazed grasslands' greenhouse gas budget, water budget, net primary productivity, and microbial communities. *Agricultural and Forest Meteorology*, in prep
- **Fenster, T. L. D.** and C. B. Fenster. 1996. *Plethodon cinereus* (Red Back Salamander). Predation. *Herpetological Review*, 27: 194

Relevant Skills

- Conduct field work and collect samples in agricultural settings, while leading a team of undergraduates
- Build, wire, and maintain an Eddy Covariance tower. Conduct chamber measurements
- Lab work and statistical analyses pertaining to research
- R Studio- General linear mixed models, general additive models, multivariate analyses, bootstrapping, hierarchical clustering, co-occurrence networks, construction of figures and summary reports

Graduate Coursework UC Davis and California State University, East Bay

Horticulture and Agronomic Principles, Plant Genetics, Plant Root Biology, Grapevine Pests, Diseases, and Disorders, Viticulture Practices, Ecology and Agriculture, Research Perspectives in Horticulture and Agronomy, Vine Growth and Physiology, Horticulture and Agronomic Practices, Sustainable Nutrient Management, Soil Ecology, Community Ecology, Biology of Fungi, Evolutionary Biology, Microbial Symbioses, Environmental Microbiology, Restoration Ecology and Carbon Sequestration, The Science of Soils, Intro to R for Data Science, Chemistry 111, Chemistry 112, Physics 125, BIOL 690- Independent Study, Thesis

Short Courses

- **Flux Course 2019:** Rocky Mountain Field Station, July 15-26, 2019. Course topics: flux measurements at the leaf & soil level; modeling leaf CO₂ and H₂O fluxes; eddy covariance measurements; predictions of fluxes from satellite observations; canopy flux models; assimilation of flux observations and satellite remote sensing data into ecosystem process models; and Bayesian approaches to modeling
- **Applied Agroecology: Strategizing Science to Address Farmers' Needs:** Oak Lakes Field Station, June 17-21, 2019