

# Galen Gorski

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Earth and Planetary Sciences Department  
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## EDUCATION

University of California, Santa Cruz, Santa Cruz, CA  
PhD Candidate Hydrogeology *Expected Date of Defense: Fall 2020*  
Committee Members: Andrew Fisher (Primary Advisor), Adina Paytan, Noah Finnegan, Samuel Sandoval Solis

### Current Research

My research combines field, laboratory and modeling techniques to investigate improvements to water quantity and quality with a particular emphasis on measuring and modeling biogeochemical cycling in groundwater surface-water interactions.

- Completed coursework includes: Introduction to Probability, Classical and Bayesian Inference, Applied Bayesian Modeling, and Groundwater Modeling

Carleton College, Northfield, MN

Bachelor of Arts in chemistry

*June 2013*

- Extensive coursework in geology
- Senior thesis: *Probing the primary events in photosynthesis using ultra-fast lasers*

## POSITIONS HELD

**NSF Graduate Research Intern** *Jan. 2018 -*  
USGS advised by Daniel Goode, Lawrenceville, NJ

**PhD Candidate and NSF-GRFP Fellow** *Sept. 2015 - Current*  
Hydrogeology Lab of Andrew Fisher, UC Santa Cruz, Santa Cruz, CA

**Biological Science Technician** *Nov. 2014 - July 2015*  
Biometerology Lab of John Baker and Tim Griffis, USDA, Minneapolis, MN

**Laboratory Technician** *Oct. 2013 - July 2014*  
Isotope Geochemistry Lab of Gabriel Bowen, University of Utah, Salt Lake City, UT

**Research Assistant** *June 2013 - Sept. 2013*  
Physical Chemistry Lab of Will Hollingsworth, Carleton College, Northfield, MN

**Research Assistant** *June 2012 - Sept. 2012*  
Materials Chemistry Lab of Steven Drew, Carleton College, Northfield, MN

**PUBLICATIONS** Gorski G., Fisher A.T., Beganskas S., Weir W., Redford K., Schmidt C., Saltikov C., (2019) Field and laboratory studies linking hydrologic, geochemical, and microbiological processes and enhanced denitrification during infiltration for managed recharge. *Environmental Science and Technology*, 53, 9491-9501  
doi: 10.1021/acs.est.9b01191

Beganskas S., **Gorski G.**, Weathers T., Fisher A.T., Schmidt C., Saltikov C.W., Redford K., Stoneburner B., Harmon R., Weir W. (2018) A horizontal permeable reactive barrier stimulates nitrate removal and shifts microbial ecology during rapid infiltration for managed recharge. *Water Research*, 144, 274-284  
doi: doi.org/10.1016/j.watres.2018.07.039

Griffis T.J., Wood J.D., Baker J.M., Lee X., Xiao K., Chen Z., Welp L.R., Schultz N.M., **Gorski G.**, Chen M., Nieber J. (2016) Investigating the source, transport, and isotope composition of water vapor in the planetary boundary layer *Atmospheric Chemistry and Physics Discussion*  
doi: doi.org/10.5194/acp-16-5139-2016

**Gorski G.**, Strong C., Good S.P., Bares R., Ehleringer J.R., Bowen G.J. (2015) Vapor hydrogen and oxygen isotopes reflect water of combustion in the urban atmosphere *Proceedings of the National Academy of Science*, 112, 3247-3252.  
doi: dx.doi.org/10.1073/pnas.1424728112

## AWARDS AND FELLOWSHIPS

UCSC Aaron and Elizabeth Waters Award for best qualifying exam	<i>June 2018</i>
NSF Graduate Research Fellowship—3 years full funding	<i>March 2016</i>
UCSC Environmental Studies Hammett Graduate Fellowship	<i>March 2016</i>
UCSC Additional First Year Fellowship	<i>March 2015</i>

## SELECTED PRESENTATIONS

**Gorski G.**, Van der Valk, M., Fisher A.T., Beganskas S., Producing more interpretable recharge suitability maps: Visualizing sensitivity to subjective choices during the map-making process *Oral presentation at the International Symposium for Managed Aquifer Recharge* (Madrid, Spain May 2019)

**Gorski G.**, Fisher A.T., Beganskas S., Pensky J., Dailey H., Schmidt C., Using machine learning to incorporate water quality improvements for mapping MAR suitability. *Oral presentation at the International Symposium for Managed Aquifer Recharge* (Madrid, Spain May 2019)

**Gorski G.**, Dailey H., Fisher A.T., Coupling benefits to water quantity and quality through stormwater collection linked to managed recharge. *Oral presentation at the Biennial Symposium on Managed Aquifer Recharge* (San Diego, CA March 2018)

**Gorski G.**, Beganskas S., Weir W., Redford K., Saltikov C., Fisher A.T., Linking field and laboratory studies to investigate enhanced nitrate removal using permeable reactive barrier technology during managed recharge *Oral presentation at the national meeting of the American Geophysical Union* (New Orleans, LA December 2017)

## COMPUTER SKILLS

Adobe Illustrator, ArcGIS, EddyPro, HYDRUS (Variably saturated hydrologic modeling), R, L<sup>A</sup>T<sub>E</sub>X, MatLab, MODFLOW, MySQL, Surfer, SWAT (Soil Water Assessment Tool), UNIX shell scripting

## INTERESTS

*Hobbies:* hiking, backpacking, bowling  
*Other:* Intermediate Spanish