

## **CURRICULUM VITAE**

**Sarah Amie Newland Pearce**

**Geomorphologist**

San Francisco Estuary Institute  
Second Floor  
7770 Pardee Lane  
Oakland, California 94621, USA  
email : [sarahp@sfei.org](mailto:sarahp@sfei.org)

### **EDUCATION**

2001 **M.S.** Geomorphology, Lehigh University, Bethlehem, PA.  
Thesis title: The hydraulic geometry of ephemeral streams: north flank of the San Bernardino Mountains, southern California.

1999 **B.S.** Geosciences, Trinity University, San Antonio, TX.  
Honors Thesis title: Metamorphic Petrology of Pelitic Sediments of the Elkhorn Mountains, Northeastern Oregon.

### **PROFESSIONAL EMPLOYMENT**

2005 – Present Associate Environmental Scientist – San Francisco Estuary Institute, Oakland, California.

2001 - 2005 Environmental Analyst - San Francisco Estuary Institute, Oakland, California.

2001 Graduate Assistant – Lehigh Earth Observatory, Lehigh University, Bethlehem, PA.

2000 - 2001 Teaching Assistant – Process Sedimentology, Stratigraphy, and Surficial Processes; Environmental Geology. Lehigh University, Bethlehem, PA.

### **AFFILIATIONS**

American Geophysical Union (AGU)  
Geological Society of America (GSA)

## CLASSES/WORKSHOPS

June 2009: Taught the 5-day California Rapid Assessment Methodology for wetlands (CRAM) Practitioner-level training for Riverine and Depressional wetlands, Napa CA.

February 2008: California Rapid Assessment Methodology for wetlands (CRAM) Train the Trainers Workshop

June 2005: Introduction to ArcGIS I and II. ESRI classroom instruction.

August 2003: Aquatic Ecological Assessment Workshop, taught by Jim Harrington (California Department of Fish and Game)

May 2003: Measurement, Monitoring and Management of Large Woody Debris in North Coast Streams (University of California Cooperative Extension)

## PUBLICATIONS

### TECHNICAL AND CONSULTING REPORTS

**Pearce, S.**, Bigelow, P., and McKee, L., 2009. Dry Creek Watershed Sediment Source Reconnaissance. A technical report of the Regional Watershed Program prepared for Alameda County Flood Control and Water Conservation District (AFC&WCD): SFEI Contribution 595. San Francisco Estuary Institute, Oakland CA, xx pp.

**Pearce, S.**, and McKee, L., 2009. Alameda Creek Bulk Sediment Study. A technical report of the Regional Watershed Program prepared for Alameda County Flood Control and Water Conservation District (AFC&WCD): SFEI Contribution 596. San Francisco Estuary Institute, Oakland CA, xx pp.

Ridolfi, K., and **Pearce, S.**, 2009. Draft Impairment Assessment for Sediment, Nutrients, and Pathogens in the Petaluma River Watershed. Prepared for the San Francisco Bay Regional Water Quality Control Board. SFEI Contribution xxx. San Francisco Estuary Institute, Oakland CA.

Bigelow, P.E., **Pearce, S.A.**, McKee, L.J., and Gilbreath, A., 2008. Alameda Creek. A Sediment budget for two reaches of Alameda Creek. A technical report of the Regional Watershed Program prepared for Alameda Flood Control and Water Conservation District (AFC&WCD): SFEI Contribution 550. San Francisco Estuary Institute, Oakland, CA. 140 pp.

**Pearce, S.**, Gilbreath, A., and McKee, L., 2007. Stream Inventory Report for La Honda Creek. A technical report of the Watershed Program, San Francisco Estuary Institute, Oakland, CA. SFEI Contribution no. 529.

Tillery, A.C., Sowers, J.M., and **Pearce, S.**, 2007. Creek and Watershed Map of San Mateo and Vicinity. Oakland Museum of California. Oakland, CA.

Grossinger, R., Askevold, R., Striplen, C., Brewster, E., **Pearce, S.**, McKee, L., and Collins, J., 2006. Coyote Creek Historical Ecology Study. San Francisco Estuary Institute, Oakland CA. SFEI contribution no. 426.

**Pearce, S.,** McKee, L., and Shonkoff, S., 2006. Pinole Creek Watershed Sediment Source Assessment: Pavon Creeks Sub-Basin. A technical report of the Regional Watershed Program, San Francisco Estuary Institute (SFEI), Oakland, Ca. SFEI Contribution 515.

**Pearce, S.,** McKee, L., and Shonkoff, S., 2005. Pinole Creek Watershed Sediment Source Assessment. A technical report of the Regional Watershed Program, San Francisco Estuary Institute (SFEI), Oakland, Ca. SFEI Contribution 316.

**Pearce, S.,** and Collins, J., 2004. Analysis of Reference Tidal Channel Plan Form for the Montezuma Wetlands Restoration Project. SFEI Contribution 77. San Francisco Estuary Institute, Oakland, Ca.

Brady, R.H. III, **Pearce, S.,** McKee, L., Overton, S., Striplen, C., 2004. Fluvial geomorphology, hydrology, and riparian habitat of La Honda Creek along the Highway 84 transportation corridor, San Mateo County, California. A technical report of the Regional Watershed Program, San Francisco Estuary Institute (SFEI), Oakland, California. SFEI Contribution 78.

**Pearce, S.A.,** McKee, L.J., and Shonkoff, S.B., 2004. San Pedro Creek Watershed Sediment Source Analysis, Volume III: Tributary sediment source assessment. A Technical Report of the Regional Watershed Program: SFEI Contribution 87. San Francisco Estuary Institute, Oakland, Ca. 70 pp.

McKee, L., Leatherbarrow, J., **Pearce, S.,** and Davis, J., 2003. A review of urban runoff processes in the Bay Area: Existing knowledge, conceptual models, and monitoring recommendations. A report prepared for the Sources, Pathways and Loading Workgroup of the Regional Monitoring Program for Trace Substances. SFEI Contribution 66. San Francisco Estuary Institute, Oakland, Ca.

**Pearce, S.,** O'Connor, M., McKee, L., and Jones, B., 2003. Channel geomorphology assessment: A component of the watershed management plan for the Carneros Creek watershed, Napa County, California. A technical report of the Regional Watershed Program. SFEI Contribution 67. San Francisco Estuary Institute, Oakland Ca.

**Pearce, S.,** O'Connor, M., McKee, L., and Jones, B., 2003. Channel geomorphology assessment: A component of the watershed management plan for the Sulphur Creek watershed, Napa County, California. A technical report of the Regional Watershed Program. SFEI Contribution 68. San Francisco Estuary Institute, Oakland Ca.

**Pearce, S.,** McKee, L., Grossinger, R., and O'Connor, M., 2002. Geomorphic processes in Soda Creek, Napa River Watershed: Recommendation for maintenance of beneficial uses. Report prepared for the State Water Resources Control Board. A technical report of the Regional Watershed Program. SFEI Contribution 63. San Francisco Estuary Institute, Oakland Ca. October 2002.

## PAPERS AND ABSTRACTS

Pazzaglia, F.J., Selverstone, J., Roy, M., Steffen, K., **Pearce, S.,** Knipscher, W., and Pearce, J., 2007. Geomorphic expression of midcrustal extension in convergent orogens. *Tectonics*, v.26, TC6010.

**Pearce, S.A.,** Pazzaglia, F.J., Eppes, M.C., (2004). Ephemeral channel response to a rising fold: *Geological Society of America Bulletin*, v. 116, no. 9-10, p. 1223-1239. doi:10.1130/B25386.1

**Pearce, S.A.,** and Grossinger, R.M., 2004. Relative effects of fluvial processes and historical land use on channel morphology in three sub-basins, Napa River basin,

California, USA. Sediment Transfer through the Fluvial System. IAHS Publication 288 (eds. Golosov, V., Belyaev, V., and Walling, D.E.).

**Newland, S.,** Smith, D., Crowley, P., 1999, Metamorphic Petrology of Pelitic Sediments of the Elkhorn Mountains, Northeastern Oregon: *Geological Society of America, Abstracts with Programs*, 31. no.1 (199902): 31

**Newland, S.,** 1999, Metamorphic Petrology of Pelitic Sediments of the Elkhorn Mountains, Northeastern Oregon: *12th Keck Research Symposium in Geology Proceedings*, Northfield, MN, Library of Congress #98-74326, 299-302.

### ORAL PRESENTATIONS

**Pearce, S.,** Bigelow, P., and McKee, L., 2009. Dry Creek Reconnaissance: insights on sediment delivery to the Alameda Creek flood control channel. Alameda Creek Watershed Council Annual Conference. October 22, 2009, Zone 7 Water Agency Board Room, Livermore CA.

McKee, L.J., **Pearce, S.,** and Ridolfi, K., 2009. Innovative Opportunities and Challenges for Management of the Alameda Creek Flood Control, Fremont, California. Floodplain management Association Annual Conference: Investing in floodplains for future generations, Innovation in Land Use Strategies, Green Infrastructure, Technology and Partnerships. Program, p 14. September 8-11, 2009, Fairmont Hotel, San Jose, California.

Oram, J., Collins, J., McKee, L., Grossinger, R., **Pearce, S.,** Williams, M., Hoenicke, R., 2009. Assessing Alternative Landscape Modifications in the Napa River Watershed. Floodplain management Association Annual Conference: Investing in floodplains for future generations, Innovation in Land Use Strategies, Green Infrastructure, Technology and Partnerships. Program, p 14. September 8-11, 2009, Fairmont Hotel, San Jose, California.

**Pearce, S.,** Collins, J., Grossinger, R., Hoenicke, R., Lewicki, M., McKee, L., Ridolfi, K., and Williams, M. Vineyard Management in a Watershed Context. Napa Sustainable Winegrowing Group, Agriculture and water conservation seminar, Napa, CA. May 29, 2008.

Bigelow, P., **Pearce, S.,** McKee, L., and Gilbreath, A. A sediment budget for two reaches of Alameda Creek. Alameda Creek Watershed Sediment Forum. April 2008.

**Pearce, S.** Sediment Source Assessment within the Pinole Creek Watershed, Contra Costa County, California: a sediment budget approach. Geological Society of America 101<sup>st</sup> Annual Meeting Cordilleran Section. April, 2005, San Jose, CA.

**Pearce, S.** Pinole Creek Watershed Sediment Source Assessment. Contra Costa County Watershed Forum, Concord, CA. January 12, 2005.

**Pearce, S.** Influence of landslides on water quality and aquatic habitat in selected creeks in the Bay-Delta watershed. CALFED Science Conference, Sacramento Convention Center, October 4-6, 2004.

**Pearce, S.,** and Grossinger, R.M. Relative effects of fluvial processes and historical land use on channel morphology in three sub-basins, Napa River basin, California, USA. International Commission on Continental Erosion (ICCE) of the International Association of Hydrological Sciences (IAHS). Sediment transfer through the fluvial system. Moscow State University, Moscow, Russia. August 2-6, 2004.

**Pearce, S.** A fluvial geomorphic methodology to assist local agencies and stakeholders in managing Bay Area streams for a diverse set of management issues. San Francisco Bay Regional Water Quality Control Board training meeting. March 25, 2004.

**Pearce, S.,** O'Connor, M., McKee, L., and Jones, B., 2003. Geomorphic Processes and Salmonid Habitat in Sulphur and Carneros Creeks, Napa River Watershed, Napa County California. CALFED Science Conference, Sacramento Convention Center, January 14-16, 2003.

## POSTERS

**Pearce, S.,** Bigelow, P., McKee, L., and Gilbreath, A., 2009. A Sediment Budget for Two Reaches of Alameda Creek: support for flood control channel management. Poster presentation at the 9th Biennial State of the San Francisco Estuary Conference, September 29<sup>th</sup> - October 1<sup>st</sup>, Oakland Marriott, City Center, Oakland, CA.

Bozkurt, S.E., McKee, L.J., Parris, A., **Pearce, S.A.,** and Haltiner, J., 2006. Trends in Suspended Sediment Input to the Bay from Local Tributaries. 4th Biennial CALFED Science Conference: Making Sense of Complexity: Science for a Changing Environment. October 23-25, 2006. Sacramento Convention Centre, Sacramento, California.

**Pearce, S.,** McKee, L., Arnold, C., and Hokholt, L., 2005. Pinole Creek Watershed Sediment Source Assessment: A sediment budget approach highlighting watershed scale sediment related processes and supply to the Bay. State of the Estuary Conference, Henry J. Kaiser Convention Center, Oakland, CA. October 4-6, 2005.

**Pearce, S.,** Grossinger, R.M., O'Connor, M., and McKee, L.J., 2003. Contrasting historical geomorphic processes and historic change through time: supporting watershed management in tributaries of the Napa River watershed. State of the Estuary Conference, Henry J. Kaiser Convention Center, Oakland, Ca. October 21-23, 2003.

## **AWARDS**

1<sup>st</sup> Place Poster- Pinole Creek Watershed Sediment Source Assessment: A sediment budget approach highlighting watershed scale sediment related processes and supply to the Bay. 2005 California Resource Conservation District Annual Meeting and Conference, San Diego, CA.