

Adam J. Finkle, B.S., M.S.

Coastal Scientist

EXPERTISE

Ecological restoration, coastal bank stabilization, erosion control, beach nourishment, dune enhancement, wetland delineation, coastal resource area delineation, native plant identification, invasive plant management, restoration planting plan development, mitigation plan development, bioengineering design and implementation, construction management.

QUALIFICATION SUMMARY

- 8 years of experience in the coastal sciences.
- Design, implementation, and construction management of large-scale ecological restoration and coastal resiliency projects throughout New England.
- Design, implementation, and construction management of coastal bank stabilization, dune enhancement, and beach nourishment, and native planting projects.
- Construction site supervision and project management to ensure client satisfaction with project deliverables.
- Identification and delineation of coastal and freshwater wetland plant communities and resource areas.
- Development and implementation of invasive plant management plans.
- Development of site restoration and mitigation plans.
- Collaboration with project engineers, consulting teams, state and municipal officials.

WORK EXPERIENCE

2016 – Present Coastal Scientist, Woods Hole Group, Inc.
 2015 – 2016 Assistant Project Manager, SumCo Eco Contracting
 2013 – 2015 Environmental Technician, Wilkinson Ecological Design
 2010 – 2013 Research Assistant and Collaborator, *Plant-Pollinator Dynamics in Bahamian Coastal Communities*, The Ohio State University & Siena College
 2009 – 2011 Teacher – Naturalist, National Environmental Education Development Collaborative



Education

2013 – M.S.
 Sustainability Science
University of Massachusetts Amherst
 2009 – B.S.
 Biology
Siena College

Licenses and Registrations

N/A

Professional Affiliations

- Rutgers University Wetland Delineation Certificate
- Massachusetts Certified Invasive Plant Manager
- Massachusetts Licensed Herbicide Applicator
- OSHA HAZWOPER
- OSHA 10-Hour
- Massachusetts Hoisting Engineer
- Rhode Island Hoisting Engineer
- PADI Scuba Certification

Publications & Presentations

5

KEY PROJECTS

Lighthouse Pond Aquatic Restoration Project, Edgartown, MA (2016-present)

Performed wetland delineations and bathymetric surveys to assist in the development of an ecological restoration plan for Lighthouse Point Pond in Edgartown, MA. The proposed plan includes targeted dredging of in-filled sections of the pond, nourishment of the seaward barrier beach, and restoration of aquatic vegetation bordering the pond. Restoration measures would help to mitigate the loss of open water habitat while removing excess nitrogen from the system, improving water quality, and preserving salt marsh habitat.

Cow Bay Bridge and Causeway Restoration, Edgartown, MA (2016-present)

Developed recommendations to guide development of mitigation and restoration plans following reconstruction of the Cow Bay Bridge and causeway in Edgartown, MA. Delineated coastal wetlands, conducted vegetation assessments, and developed engineering recommendations for restoration, slope stabilization, and mitigation. Assisted in all-aspects of environmental permitting.

Adaptive Land Management Plan for The Knob, Quissett, MA (2016-present)

Developed adaptive land management plan for the Knob, Quissett, MA. Supervised the implementation of adaptive land management activities for Quissett Harbor Preservation Trust and Salt Pond Area Bird Sanctuaries. Improvements included stormwater management along walking paths and on steep coastal banks, beach nourishment, coastal bank stabilization, invasive plant management, and the installation of coastal salt tolerant restoration plantings.

Popponesset Spit Dune Enhancement, Mashpee, MA (2016-present)

Supervised the placement of 15,000 cubic yards of beach compatible sand and implementation of American Beach Grass restoration plantings along Popponesset Spit, to increase the elevation of the existing barrier dune, providing greater resilience to coastal properties. Facilitated partnership between Save Popponesset Bay, the Town of Mashpee, MA, and Mass Audubon.

Beach Nourishment and Dune Enhancement- Gaines Way, Edgartown, MA (2016- present)

Monitored the placement of dredged, beach-compatible sand along Fuller Street Beach. Facilitated the implementation of 3,000 cubic yards of upland sand to construct a 270 linear-foot coastal dune to add resilience to vulnerable coastal property. Supervised the implementation of American Beach Grass restoration plantings.

Nauset Estuary Dredging Project, Orleans, MA (2016- present)

Conducted eelgrass survey to inform channel layout and design for improvement dredging in Nauset Estuary. Assisting with Federal NEPA, Army Corps; State MEPA, Chapter 91-Water Quality; and Local NOI permit applications. Coordinating stakeholder meetings to educate public on research findings and improve understanding of project need.

KEY PROJECTS (CONTINUED)

Nauset Beach Phased Retreat, Orleans, MA (2016- present)

Developed alternatives for relocation and/or replacement of historic buildings and infrastructure located within coastal resource areas, to occur in concert with removal of impervious parking lot and implementation of 35,000 cubic yard dune enhancement project.

East Harbor Culvert Design and Permitting, Truro, MA (2017)

Culvert, installed in 1956, has failed between Route 6A and Route 6, creating a large, amorphous salt marsh. Bordering vegetated wetland has developed along Route 6, where stormwater has impacted local hydrology. Conducted large-scale wetland delineation of salt marsh and bordering vegetated wetland resource areas.

Hospital Cove Salt Marsh Evaluation and Monitoring Program, Bourne, MA (2017)

Conducted a salt marsh evaluation of a coastal embayment in Bourne, MA using historic methods to determine if seasonal float storage has a measurable impact on salt marsh vegetation. Presented findings to local Conservation Commission. Worked with homeowners, the local Conservation Commission, and Massachusetts Division of Marine Fisheries to enhance salt marsh monitoring protocol for future use.

Herring River Station Deployment and Monitoring, Wellfleet, MA (2017)

Deployed four (4) water quality and tidal monitoring stations within the Herring River system. Water quality and tidal conditions relayed remotely and published open-source at <https://wqdatalive.com/project/view/820>.

Hubler Way Design and Permitting, Orleans, MA (2017)

Conducted wetland and coastal resource area delineation of Hubler Way property. Property being developed to facilitate phased retreat from Nauset Public Beach through the development of less vulnerable, upland beach parking.

Brewster Bike Trail Connection, Brewster, MA (2017)

Conducted wetland delineation of vernal freshwater wetland abutting proposed Brewster Bike Trail Connection. Conducted coastal resource area delineation seaward of proposed bike path extension.

Improvements to Allandale Woods, West Roxbury, MA (2016)

Lead Boston Parks and Recreation effort to improve pedestrian access, storm water management, native plant diversity, and trail conditions at Allandale Woods, a 101-acre Urban Wild conservation area located in Boston's West Roxbury neighborhood.

Breakwater Landing Coastal Resiliency and Habitat Restoration Project, Brewster, MA (2015-2016)

Facilitated the implementation of the Massachusetts CZM-funded Town of Brewster Breakwater Landing Coastal Resiliency Project. Removed impervious pavement and relocated 30 parking spaces to a less vulnerable location, reconstructed and restored coastal dune, constructed dry swales and bio-retention areas to mitigate stormwater, implemented native plantings to enhance coastal resource areas.

KEY PROJECTS (CONTINUED)

Muddy River Flood Risk Management and Environmental Restoration Project, Boston, MA (2015-2016)

Implemented a geo-cell system to provide steep slope and channel wall stabilization for the Muddy River Restoration Project. Supervised and assisted in the restoration of historic, native plant communities throughout the project area.

Port Norfolk Remediation and Restoration, Dorchester, MA (2015-2016)

Served as landscape project foreman and oversaw the implementation of native herbaceous and salt marsh restoration plantings as part of \$4.25 million DCR-funded remediation and restoration of 14-acre Neponset River industrial site.

PUBLICATIONS & PRESENTATIONS

Finkle, A.F. 2018. *Beach Nourishment and Dune Enhancement: Effective Adaptation Strategy, or “For the Birds”? Balancing conservation and restoration on the Cape and Islands*. 2018 Mass Audubon Cape Cod Natural History Conference.

Landry, C.L., Elliott, N.B., Finkle, A.J., Kass, L.B. 2013. *Plant-Pollinator Interactions in Bahamian Coastal Communities*. Caribbean Naturalist.

Finkle, A.F. *Understanding Toxic Plant Exposure*. 2013. Outer Cape Environmental Awareness Newsletter.

Landry, C.L., Elliott, N.B., Finkle, A.J., Kass, L.B. 2012. *Pollinator Networks- What’s the Buzz? Understanding Coastal Community Dynamics on San Salvador Island, Bahamas*. Proceedings of the 14th Symposium on the Natural History of the Bahamas.

Finkle, A.F., Elliott, N.B. 2011. *Status of Endemic S. plumieri and invasive S. taccada on San Salvador Island, Bahamas*. Proceedings of the 13th Symposium on the Natural History of the Bahamas.

TECHNICAL REPORTING

Finkle, A.J., Fields, M.L. 2017. **Hospital Cove Salt Marsh Evaluation**, Bourne, MA.

Finkle, A.J.; Fields, M.L. 2017. **Letter Report: Revisions to the Hospital Cove Salt Marsh Evaluation and Monitoring Protocol**, Bourne, MA

Finkle, A.F., Fields, M.L. 2017. **Nauset Estuary Dredging Project, Economic Analysis, and Project Need Narrative**, Orleans, MA.

Finkle, A.J., Marden, T. 2017. **Cow Bay Bridge and Causeway Performance Standards Narrative for Wetland Resource Areas**, Edgartown, MA.

Finkle, A.J., Marden, T. 2016. **Cow Bay Bridge and Causeway Restoration Project Narrative, Wetland Assessment, and Impact Analysis**, Edgartown, MA.

TECHNICAL REPORTING (CONTINUED)

Finkle, A.J., Fields, M.L. 2016. **Comprehensive Permit Project Narrative, Adaptive Land Management Recommendations, and Construction Methods for The Knob**, Quissett, MA.

Marden, T., Finkle, A.J. 2016. **Popponesset Spit Beach and Dune Enhancement Performance Standards Narrative for Wetland Resource Areas**, Mashpee, MA.