



Statement of Qualifications

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Introduction

Marine Surveys & Assessments (MSA) is a certified woman-owned small business and environmental consulting cooperative, established in 1996. Our team of seasoned scientists bring decades of experience in conducting biological surveys, preparing technical reports, developing permit applications, and implementing monitoring protocols. We expertly navigate complex regulatory requirements across aquatic, shoreline, wetland, and sensitive terrestrial environments throughout western Washington.

MSA is recognized for our collaborative approach and ability to effectively communicate with diverse stakeholders and regulatory agencies. Our close-knit team of biologists and project managers combines the agility and responsiveness of a small firm with the expertise and capacity for successful large-scale projects. With a dedicated, full-time financial manager, we ensure fiscal accountability and deliver projects within scope and budget.

Clients trust MSA for our high-quality biological consulting and swift project delivery, fostering enduring partnerships. We proudly serve as on-call consultants for organizations including Washington State Parks, WDFW, Waterfront Construction, and Marine Floats Inc. As niche specialists, we frequently subcontract with larger engineering and construction firms, and provide comprehensive biological services to public ports, conservation districts, tribes, and local non-profits.

Visit our website at www.msaenvironmental.com

Small Business Certifications

WBE: W2F0025713

DBE & SBE: D2F00025713

HUB Zone: 75358

NAICS: 541620, 541370, 541690

UEI: MMDDC53ABYE5

Cage Code: 7TWf6

King County SCS: 2694

Services

MSA offers a comprehensive suite of environmental consulting services, distinguished by our deep understanding of federal, state, and local environmental regulations. For over two decades, our team has produced thousands of biological and environmental reports, emphasizing clarity, regulatory compliance, and agency coordination.

Our services include:

- SCUBA and Shoreline Surveys
- Ecological Monitoring & Monitoring Plans, including:
 - Marbled Murrelet Monitoring
 - Marine Mammal Monitoring
 - Eelgrass Transplants and Monitoring
 - Aquaculture/Shellfish Monitoring
 - Avian Protection Plans
 - Water Quality Monitoring
 - Forage Fish Surveys
- Wetland Delineation & Stream Typing Determinations
- Ordinary High Water Mark (OHWM) Surveys & High Tide Line (HTL) Determinations
- Environmental Permitting for local, state and federal agencies from research to issuance
- Biological Reporting, including Critical Area Assessments & Reports
- Sampling Analysis Plans (SAP) and Sediment Characterization Reports (SCR)
- Endangered Species Act (ESA), Clean Water Act (CWA), WA State Administrative Code (WAC), Shoreline Management Act (SMA), and Local Shoreline Master Plan (SMP) compliance
- Habitat Restoration & Habitat Management Plans
- Mitigation & Monitoring Planning and Design
- GIS Mapping & Analysis
- Elevation Surveys
- FEMA Habitat Assessments
- Comprehensive Dredge Planning & Permitting
- Wildlife & Habitat Surveys
- Fish Exclusion/Electroshocking
- 24-ft Covered Dive Research Vessel & 10-ft Rigid Inflatable Boat

Expertise

MSA excels at communicating technical findings clearly and concisely, with senior staff directly managing fieldwork and reporting. We are committed to efficiency, cost-effectiveness, and responsiveness consistently earns us repeat business and enduring client relationships. Our scientific expertise includes:

Subtidal and Aquatic Surveys: Specialized in scientific SCUBA diving, eelgrass delineation, mitigation, transplanting, and monitoring. Our certified staff conducts forage fish spawning habitat surveys, geoduck surveys (per WDFW protocols), and subtidal habitat assessments.

Wetlands, Waterways, & Terrestrial Services: Wetland ratings and delineations, Ordinary High Water Mark (OHWM) determinations, stream typing, restoration planning, native plant mitigation design, FEMA Habitat Assessments, and ecological impacts analyses.

Wildlife and Habitat Monitoring: Remote camera surveys, wildlife tracking for presence/absence studies; marbled murrelet and marine mammal monitoring plans and implementation, and Avian Protection Plans including bird collision mortality monitoring.

Dredging Expertise: Extensive experience in planning, analysis, implementation, and reporting to comply with regulatory guidelines such as the Army Corps' dredge material management program (DMMP) and the Clean Water Act (CWA).

In addition to habitat surveys, environmental analysis, and mitigation and monitoring, we also offer comprehensive permitting support, helping clients meet environmental regulatory requirements while moving their projects forward efficiently. Direct permitting experience includes:

Regulatory Frameworks: State Environmental Policy Act (SEPA), National Environmental Policy Act (NEPA), Clean Water Act (CWA), Growth Management Act (GMA), Coastal Zone Management Act (CZMA), Shoreline Management Act (SMA), and Endangered Species Act (ESA) compliance, as well as local critical area ordinances and Shoreline Master Programs. If a wetland is federally regulated, we are familiar with the latest Waters of the United States (WOTUS) ruling (Sackett vs. EPA, 2023).

Regulatory Agencies: We are familiar with permitting compliance processes involving multiple regulatory agencies including Washington Department of Ecology (ECY), Washington Department of Fish and Wildlife (WDFW), Washington Department of Natural Resources (DNR), U.S. Army Corps of Engineers (USACE), the Environmental Protection Agency (EPA), National Marine Fisheries Service (NMFS), U.S. Fish and Wildlife Service (USFWS), Tribal jurisdictions, and local cities and counties.

Permitting Processes:

- Pre-application meetings
- Joint Aquatic Resources Permit Applications (JARPA)
- State Environmental Policy Act (SEPA) checklists
- National Environmental Policy Act (NEPA) support
- County/city applications for shoreline substantial development permits conditional use permits, shoreline variance permits, shoreline exemption permits, and floodplain development permits,
- Public or administrative hearings through the local government and/or ECY
- WDFW Hydraulic Project Approval (HPA)
- DNR forest practices applications
- DNR tideland lease regulations
- Section 401 & 404 CWA permit applications through the USACE and ECY
- National Pollutant Discharge Elimination System (NPDES) permit applications
- Programmatic processes and mitigation calculations for streamlining permitting projects through the USACE
- Navigating Section 7 ESA Formal and Informal consultations with NMFS and/or USFWS

Project Examples



Mariners Cove Beach Club, Eelgrass Transplant and Dredge, Whidbey Island, WA (2018 – Present)

- Managed multiple dredge cycles: planning, sampling, permitting, execution
- Prepared SAP, supervised fieldwork, authored SCR, BE,
- Water Quality Monitoring Plan, and Dredge and Disposal Plan
- Secured JARPA, SEPA, DNR ROW, Island County CUP, and Master Land Use permits
- Led eelgrass mitigation: SAV surveys, transplanting, ongoing monitoring
- Conducted forage fish spawning surveys



Tesoro Refinery Eelgrass Monitoring for Marathon Petroleum Corporation, Anacortes, WA (2014 – Present)

- SCUBA-based habitat and macroalgae surveys on 5.7 acres of subtidal land
- Developed WDFW-approved eelgrass mitigation and monitoring plan
- Performed baseline surveys and 10+ years of ongoing monitoring for endangered eelgrass (*Z. marina*) beds



Haley State Park, Wetland and Stream Survey, Vaughn, WA (2023)

- Supported trail and facility improvements through environmental review and planning
- Surveyed the entire 179-acre park: delineated wetlands/streams, shoreline, estuarine lagoon
- Identified sensitive habitat features and wildlife species (e.g., Bald Eagles)
- Contributed to mitigation planning and provided GIS-based maps



Jefferson County PUD, Chimacum Creek Horizontal Directional Drilling, Chimacum, WA: 2022 - 2024

- Conducted wetland delineation (non-functioning historic wetland); prepared a Habitat Management Plan and wetland report (Jefferson County Code)
- Mapped OHWM of Chimacum Creek; assessed critical habitat/species impacts (e.g., ESA-listed species Puget Sound Steelhead)
- Provided pre-construction habitat assessments, with BMP recommendations



Custom Plywood Subtidal Sediment Cleanup Project for WA Department of Ecology, Anacortes, WA: 2021 – Present

- SCUBA-based eelgrass and SAV surveys across >20 acres of restoration area
- Collected sediment core samples to evaluate toxicity and monitor thin-layer capping effectiveness
- Performed multiple monitoring events (eelgrass biomass/density, sediment samples)
- Provided monitoring reports and GIS-based deliverables to support the WA Toxics Cleanup Program



City of Bothell Sammamish River Side-Channel Restoration Monitoring Project, Bothell, WA (2022 – 2023)

- Provided year-5 monitoring for a 1,100-foot remnant channel and wetland floodplain (Sammamish River Park's Off-Channel Habitat Restoration Site)
- Monitored goals: connecting off-channel habitat for salmonid rearing/thermal refuge habitat; reestablishing wetland and riparian functions
- Performance standards: stream channel surveys/water quality/fish/vegetation monitoring, ecosystem function assessments



Pierce Conservation District (PCD) Bulkhead Removal Habitat Restoration, Gig Harbor, WA (2024)

- Partnered landowner for 720 linear feet of shoreline armoring (bulkhead) removal and marine riparian zone restoration
- Completed a Critical Area Site Assessment and prepared a Nearshore Habitat Restoration Plan (site prep, invasive species removal, native planting, maintenance, cost estimates) for restoring habitat along the shoreline within 100 feet upland of the Ordinary High Water Mark (OHWM)

Client Testimonials

“Thank you so much for meeting and exceeding our project expectations and goals. Your team was fast and efficient and very thorough. We had a very small window of opportunity to complete this project and yet your team accommodated all that was requested. We will use your services again if the need should arise and have already highly recommended your company to others within the industry.”

“We received outstanding service throughout the project.”

“We unreservedly recommend MSA. Communication with us and coordination with the maintenance team for our mitigation area were outstanding; monitoring and reporting met our permit requirements efficiently and completely. It was a pleasure working with them.”

“All that was requested to be completed was done so with excellence.”

Additional Information

Client Relationships & Company Values

MSA is recognized for strong communication and negotiation skills, enabling effective collaboration with private clients, agencies at all levels, and tribal governments—even when interests diverge. As a small firm, MSA offers competitive rates without sacrificing quality, and priding ourselves on a personalized, responsive approach. Our reputation, built over two decades, rests on deep local ecosystem knowledge, scientific integrity, and a commitment to high environmental standards.

Turnaround Times

Project turnaround timelines vary depending on scope, but MSA strives to complete deliverables within 30-60 days of receiving all necessary project information. We collaborate with clients on timelines and expectations.

Record Keeping

MSA maintains thorough, confidential, and permanent records for every project, including contracts, site plans, maps, field data, written reports, and permit documentation. Upon request, we adhere to the Washington State Retention Schedule for land use/permitting records and complies with the Local Government Common Records Retention Schedule (CORE) for projects involving public agencies.

Insurance Coverage

MSA carries Professional and General Liability insurance (\$1,000,000 per occurrence, \$2,000,000 aggregate). Certificates of Insurance are available upon contract finalization, and additional coverage can be negotiated based on project needs.

Key Staff Member Roles and Qualifications*

Roles	Team Member					
	Amy Leitman	Meg Amos	Kimberly McClurg	Bryan De Caterina	Jill Cooper	Raquel Corniuk
Project Manager	X	X	X	X	X	X
Permitting Specialist	X	X	X	X	X	X
Reporting	X	X	X	X	X	X
GIS			X		X	
Mitigation Plans & Restoration	X	X	X		X	X
Marine Mammal Monitor	X	X	X	X	X	X
Certified Marbled Murrelet Monitor		X	X	X	X	
Certified Forage Fish Surveyor	X	X	X	X	X	X
Ordinary High Water Mark (OHWM) Surveyor	X	X	X	X	X	X
Wetland Rating & Delineation, Stream Determination	X	X			X	
Scientific SCUBA Diver	X			X		X
Licensed UAV Pilot				X		X

**See resumes for more detailed information*



Amy Leitman

Founder and Senior Scientific Marine Biologist

Amy is the founder of Marine Surveys & Assessments, a Senior Marine Biologist, and a scientific SCUBA diver specializing in nearshore biological analytical work. She is experienced in all aspects of waterfront and municipal project development from feasibility analysis to planning, permitting, biological monitoring, best management practices, and mitigation planning and reporting. Amy's nearshore consulting experience includes commercial and port facilities, marinas, surveys, and biological assistance. She has been the project manager on numerous waterfront projects and the lead biological consultant providing cost-effective solutions to complex environmental problems for over 25 years. She has worked with a variety of regulatory agencies to help design and finalize many of the biological requirements used to date.

Years with MSA: 29

Education

Master of Science, Marine Biology
Moss Landing Marine Laboratories,
CA

Bachelor of Science, Animal Science,
Zoology, University of Rhode Island,
RI

Training and Certifications

Dive Training

- NAUI Basic Dive Certification
- PADI Research Dive Certification
- California Surface Supplied Air
- DAN O₂ Certification

Technical Fisheries Training Program (1981) University of Oklahoma

Forage Fish Spawning Analysis
(2016) WA Dept. Fish & Wildlife

Basic Wetland Delineation

Tree and Shrub Identification for
Western WA Puget Lowland Habitats

**WA State Certified Eelgrass,
Macroalgae and Geoduck Surveyor**

OSHA 40-Hr HAZWOPER

First Aid, CPR and AED - current

Professional Associations

- National Shellfisheries Association
- Pacific Coast Shellfish Growers Association
- Pacific Estuarine Research Society
- North Olympic Salmon Coalition
- Northwest Algal Symposium
- Land Trust

Project Summaries

Harbor Village Marina Dredge & Renovation Project Kenmore, WA: 2007 – 2024

Amy managed all aspects of marina maintenance dredge project in 2007 and is currently working with HVM on a plan for another potential dredge as well as a complete marina revamp. MSA completed the previous dredge design and bathymetry mapping, prepared a technical memorandum for the DMMO, handled all environmental permitting applications for City, State, and Federal (City of Kenmore, DNR, WDFW, ACOE, NMFS), conducted necessary habitat surveys, and wrote a Biological Evaluation report.

Mariners Cove Beach Club Maintenance Dredge Project Whidbey Island, WA: 2018 – Present

Prior to dredging, Amy directed the sediment core sampling & analysis, a biological/habitat survey & assessment, the development of an ESA-compliant eelgrass management & mitigation plan, and the securing of all required environmental permits. She was part of the water quality monitoring team for the maintenance dredging that occurred in the MCBC marina in 2022 to ensure compliance with the permitting agencies.

City of Port Townsend North Beach Outfall Replacement, Port Townsend, WA: 2018 – 2024

Amy led a Submerged Aquatic Vegetation (SAV) Survey for quantitative density data. The SAV, along with GIS and data analysis, were used to determine where the new outfall pipe should be placed. Eelgrass, kelp and surf grass transplantation surveys were done, and a Habitat Mitigation and Monitoring Plan were developed.



Bryan DeCaterina

Senior Marine Scientist, Dive Safety Officer

Bryan joined MSA in 2018, bringing over a decade of experience in the environmental sector with a specialization in nearshore habitats and marine benthic ecology. As the lead of MSA's scientific dive program, he has successfully managed numerous large-scale, complex marine projects. His expertise spans eelgrass transplantation, macroalgae impact assessments, mitigation monitoring, and critical habitat evaluations under the Endangered Species Act and Section 404(b) of the Clean Water Act. With an in-depth knowledge of local, state, and federal regulations, Bryan facilitates seamless collaboration between clients, stakeholders, and regulatory agencies, ensuring practical and effective environmental solutions.

Years with MSA: 7

Education

B.S. Environmental Science
Minor in Chemistry
Virginia Commonwealth University
Magna Cum Laude

Training and Certifications

Dive Training

- PADI | Open Water Diver
- STI | Rescue Diver
- STI | Nitrox Diver
- STI | Drysuit Diver
- DAN | CPR, First Aid, O2
- ADC | Diver Fitness Exam

USCG 100TN Mariner Credential

OSHA 40-Hr HAZWOPER

Licensed UAV Pilot

- Airman Certificate

Registered TWIC

Marbled Murrelet Monitor

Forage Fish Monitor

Wetland Delineation Course Certificate, Portland State University

Certificates through the Dept. of Ecology Coastal Training Program

- OHWM determination
- How to conduct Forage Fish surveys
- Using the 2014 Wetland Rating System
- Wetland credit/debit mitigation
- Winter twig identification
- Grass, Sedge, Rush Identification

First Aid, CPR and AED - current

Project Summaries

Wyckoff Beach Intertidal Sediment Remedy Monitoring for US Environmental Protection Agency, Bainbridge Island, WA: 2021 – Present

MSA partnered with Jacobs Engineering to establish a baseline survey of eelgrass and submerged aquatic vegetation surrounding the project footprint. As Project Manager, Bryan collaborated with engineers to develop survey methodologies supporting an eelgrass transplant pilot study within the remedial action area. In the field, he led MSA's scientific dive team in collecting eelgrass density data and assessing the overall health of submerged aquatic vegetation. He is responsible for project planning, on-site management, budget oversight, and ensuring accurate, timely data deliverables to the client.

Tesoro Refinery Eelgrass Monitoring for Marathon Petroleum Corporation, Anacortes, WA: 2015 – Present

Since 2015, MSA has been contracted by Marathon Petroleum to conduct biennial eelgrass monitoring along a 2,500-foot section of a transfer causeway as part of ongoing maintenance permit requirements. As project lead, Bryan oversees all field survey efforts, directing MSA's scientific dive team in data collection and statistical assessment of eelgrass densities within the project footprint. He manages all project elements, ensuring that monitoring reports are precise, scientifically robust, and delivered on schedule and within budget.

Custom Plywood Subtidal Sediment Cleanup Project for WA Department of Ecology, Anacortes, WA: 2024- Present

In collaboration with Haley & Aldrich, MSA biologists have been monitoring eelgrass and submerged aquatic vegetation health, along with sediment toxicity, within this Department of Ecology restoration site. As Project Manager, Bryan has led MSA's scientific dive team through multiple monitoring events, collecting eelgrass biomass and bed density data, as well as sediment core samples from the restoration area. He is responsible for all project planning, on-site management, and ensuring accurate, timely data deliverables to the client.



Jill Cooper

Senior Ecologist and Business Development Manager

With over 15 years of diverse environmental experience, Jill excels in field biology, project management, and science communication. As a well-rounded ecologist, she possesses strong expertise in native plants, wildlife, wetlands, and shoreline ecology. At MSA, Jill wears multiple hats: she's a wetland and wildlife biologist, project manager, and lead report writer for all upland critical area reports, including wetland, stream, habitat management, FEMA, biological evaluation, and mitigation/monitoring plans. She is also our restoration and mitigation design specialist and leads the firm's marketing efforts as Business Development Manager.

Years with MSA: 5

Education

Bachelor of Science in Biology/Ecology
The Evergreen State College, WA

Associates of Arts and Sciences, Honors
Bellevue Community College, WA

Training and Certifications

Wetland Delineation Professional Certificate, Portland State University,

Electrofishing Principals & Safety Certification – Smith Root, WA

Waters of The US (WOTUS) Federal Regulations course, Swamp School

Certificates through the Dept. of Ecology Coastal Training Program:

- Using the 2014 Wetland Rating System
- Wetland Classification
- SEPA Administration
- OHWM determination
- How to conduct Forage Fish surveys
- Designing and Installing Mitigation and Restoration Projects

Marbled Murrelet monitor USFWS

Specialist Wildlife Tracking Certification, CA

PADI Open Water SCUBA

First Aid, CPR, AED – Current

Wilderness Awareness School Immersion Program, WA

Permaculture Design Certification
through the Bullock's Orcas Island
WA

Project Summaries

WA State Parks, Olallie State Park Mountain Bike Trail Construction Project, King County, WA: 2023-Present

Jill and the MSA team conducted an ESA habitat survey for a proposed mountain bike trail project at Olallie State Park, delineating critical areas located within 300 feet of the proposed trail site. The survey included delineating and rating one wetland and performing OHWM and stream typing on a seasonal stream. With the trail design now finalized, MSA is preparing a SEPA application and critical areas report for Parks' submission to King County as part of the permitting process.

Jefferson County PUD, Ripley Creek Directional Boring Project, Quilcene, WA: 2024 - Present

MSA is assisting Jefferson PUD with permitting for an underground utility line installation under Ripley Creek, a fish-bearing stream, using horizontal directional drilling (HDD). MSA provided wetland and OHWM studies in 2024 and is now coordinating geotechnical work and engineering design for the permit application process.

City of Bothell, Sammamish River Side-Channel Restoration Monitoring Project, Bothell, WA: 2022 – 2023

Jill managed the MSA team in providing monitoring services for a 1,100-foot-long remnant channel and wetland floodplain at the Sammamish River Park's Off-Channel Habitat Restoration Site, located along the Burke-Gilman Trail. Site goals included connecting off-channel habitat to the Sammamish River to create accessible salmonid rearing and thermal refuge habitat, as well as re-establishing the critical functions of the wetland and riparian habitat along the river. Performance standards included stream habitat and channel surveys, water quality monitoring, fish surveys, vegetation monitoring, and ecosystem development.



Kimberly McClurg

Senior Marine Biologist

Since 2014, Kimberly has been a pivotal force at MSA, leading report writing and navigating complex permitting for diverse public and private shoreline projects across the Puget Sound. She ensures strict adherence to local critical area regulations, no net loss policies, and federal ESA requirements. Kimberly consistently collaborates with state agencies (WDFW, ECY, DNR) to develop project-specific water quality and eelgrass monitoring/transplant plans. Her deep expertise in shoreline permitting and mitigation, coupled with extensive experience refining and applying NOAA's Salish Sea Nearshore Programmatic (SSNP) Calculator, makes her indispensable in guiding clients through challenging regulatory processes.

Years with MSA: 11

Education

Bachelor of Science, Biology
Humboldt State University, CA
Associate of Science, Biology emphasis
Northwest College, WY

Training and Certifications

Marbled Murrelet monitoring, US
Fish & Wildlife Service

Marine Mammal monitoring

**NAUI Advanced Open Water
Certification**

**Certificates through the Dept. of
Ecology Coastal Training Program:**

- Shoreline Management & Stabilization Using Vegetation
- How to Administer Development Permits in Washington's Shorelines
- How to Conduct Forage Fish Surveys
- How to Determine OHWM
- River Restoration

**Professional Certificate from
Portland State University including:**

- Physical Processes
- Ecological Processes, Site Evaluation & Assessment Tools
- River Restoration Design
- Restoration & Project Management

First Aid, CPR and AED - Current

Project Summaries

Port of Silverdale Boat Ramp Maintenance Dredge & Moorage Facility Relocation Project, Silverdale - Dyes Inlet, WA: 2022 – Present

Kimberly is the project manager and permitting specialist for the Port of Silverdale, a project that required maintenance dredging of ~36,000 ft² near their boat ramp to allow vessels access during low tide events. MSA provided the SCUBA habitat surveys, Biological Evaluation and sediment sampling reports, permit applications, and mitigation planning that was required for this project. In addition to the boat ramp, Kimberly worked with the Port Commissioners to pursue relocating the moorage facility into deeper waters and is assisting the permitting of one of design options.

Port of Coupeville Pile Replacement Project, Coupeville, WA: 2020 – Present

Kimberly worked with the Port to repair/replace 38 piles and 666 linear ft of pile cap on the historic Coupeville Wharf by writing their Biological Evaluation report and the marine mammal monitoring plan. The Port is proposing to replace 30 ft of failed rock bulkhead adjacent to the Wharf, and Kimberly wrote the biological report necessary for permitting and worked with NOAA to complete the SSNP calculator to determine mitigation needs.

Poulsbo Yacht Club Marina Reconfiguration Project, Poulsbo, WA: 2020 – 2022

Kimberly was the project manager and permitting agent for the Poulsbo Yacht Club to aid them in their partial marina reconfiguration. She wrote their Biological Evaluation report and completed all necessary local, state, and federal permit applications, including a minor SSD (Type II) Permit with City of Poulsbo, an HPA from WDFW, and a Section 10 permit with the US Army Corps of Engineers. She provided agency coordination, planning, and communication to ensure the project moved forward seamlessly.



Meg Amos

Senior Ecologist and Project Manager

Since joining MSA in 2004, Meg has been instrumental as our lead permit coordinator, expertly guiding projects through intricate local, state, and federal jurisdictional processes. Her work includes essential wetland delineations and comprehensive critical area assessments across marine and terrestrial ecosystems, along with utilizing her extensive botanical knowledge for robust restoration and No-Net-Loss reporting. Building on over four decades of experience in Washington State, including a distinguished career as a field biologist with the U.S. Forest Service, Meg is dedicated to facilitating successful, environmentally sound development by fostering strong client and agency collaborations.

Years with MSA: 21

Education

Associate of Applied Science, Forest Technology, Green River Community College, WA

Training in Horticulture - Native Plant Identification and Propagation
Edmonds Community College, WA

Training and Certifications

Waters of The US (WOTUS) Federal Regulations course, Swamp School,

Wetland Delineation Professional Certificate, Portland State University,

Marbled Murrelet monitoring
USFWS, WA

Certificates through the Dept. of Ecology Coastal Training Program:

- Wetland Classification
- Using the Revised WA State Wetland Rating System in Western WA
- Using the Credit/Debit Method for Estimating Mitigation Needs
- Tree & Shrub ID for Western WA Puget Lowland Habitats
- Grass, Sedge, & Rush ID for Western WA
- Puget Lowland Habitats
- How to Administer Development Permits in WA's Shorelines
- OHWM Determination
- How to conduct Forage Fish Surveys
- SEPA Administration
- Alternative to Bulkheads
- Designing & Installing Mitigation & Restoration Projects

First Aid, CPR and AED - current

Project Summaries

Lagoon Point Maintenance Dredge Project, Whidbey Island, WA: 2023 – Present

Meg is project manager and permitting specialist for this community marina dredge project, which is occurring in an area with abundant endangered eelgrass (*Zostera marina*) presence. MSA has been hired to plan and manage the dredge, including completing all biological surveys, reports, mitigation planning, and permitting applications required by all agency levels and tribes.

Harbor Village Dredge and Marina Renovation Project, Kenmore, WA: 2019 – 2024

Meg coordinated all permit applications for Harbor Village Marina's complex dredge and dock renovation project in Lake WA. This included DNR right of entry permits, a SEPA, JARPA, WDFW HPA, local shoreline permit applications, Department of Ecology 401 water quality certification, and consulting with the Army Corps of Engineers.

Peninsula Trails Coalition; Hall Baetz Viewpoint Site Wetland, Stream, and Shoreline Delineation Project, Jefferson County, WA: 2022

Meg performed a wetland delineation and rating for two wetlands, along with a stream and shoreline OHWM survey, for the permitting of the construction of a public viewpoint on three parcels owned by the Jefferson Land Trust, located at the south end of Discovery Bay, Puget Sound. Meg worked with the MSA team to prepare a Habitat Management Plan, Wetland report, and mitigation planting plan. This project was a collaboration between the Peninsula Trails Coalition and the Jefferson Land Trust.

Pierce Conservation District (PCD) Habitat Restoration, Gig Harbor, WA: 2024

PCD's Shore Friendly Pierce Program has partnered with a private residential landowner located on Henderson Bay, Puget Sound, with the plan to remove 720 linear feet of shoreline armoring (bulkhead) and restore the marine riparian zone. MSA completed a Habitat Survey, Restoration Design and Planting Plan which included the necessary steps for restoring the habitat along the shoreline within approximately 100-feet upland of the Ordinary High Water Mark. The completed Design and Plan included instructions for site preparation, invasive plant removal, restoring native habitat by planting a diverse array of plants, maintenance recommendations, and cost estimates.



Raquel Corniuk

Marine Scientist and Project Manager

With over five years of hands-on field experience in scientific research and environmental project management, Raquel joined MSA in November 2023 and has swiftly become our Dredge Project Specialist and Project Manager. She expertly supports environmental permitting, reporting, and mitigation for local, state, and federal requirements. Raquel is also a core member of our scientific diving team, conducting vital submerged aquatic vegetation surveys. Her prior role as Research Manager at Hawaii Pacific University involved leading significant marine plastic pollution research. Raquel's profound expertise and dedication make her an exceptional asset.

Years with MSA: 1.5

Education

Master of Science, Marine Science,
Hawaii Pacific University, HI

Bachelor of Science, Integrative
Biology, The University of Illinois,
IL

Training and Certifications

Scientific Diving

- PADI Open Water
- Advanced Open Water and Rescue Diver
- AAUS Scientific Diver
- DAN Diving First Aid for Professional Divers
- SDI Dry Suit Diver

Licensed UAV Pilot

- Airman Certificate

Certificates through the Coastal Training Program:

- How to Conduct Forage Fish Surveys
- How to Determine the Ordinary High-Water Mark
- USACE Eelgrass Delineation Training

First Aid, CPR and AED - current

Project Summaries

Lagoon Point Community Association Maintenance Dredge Project, Greenbank, WA: 2024 – Present

As the project coordinator and lead federal permitting agent for Lagoon Point, Raquel plays a key role in guiding the clients through the intricate permitting process working closely with the regulatory agencies such as the DMMO, USACE, local and state environmental agencies, and other stakeholders to develop solutions to complex project challenges. Raquel prepared the biological reports, worked through the mitigation requirements, and ensured all sediment work was in compliance. She coordinated with the DMMO to write a sampling analysis plan (SAP), collected and processed core samples, and sediment characterization report. She performed the SCUBA-based habitat survey to document and delineate submerged aquatic vegetation.

Custom Plywood Subtidal Sediment Cleanup Project, Anacortes, WA: 2024- Present

MSA has been working with Haley & Aldrich on their subtidal sediment cleanup project since 2021 to monitor the eelgrass health and sediment toxicity within a Department of Ecology restoration superfund site. As project coordinator, Raquel assisted in preliminary planning through the development of a work plan and ensured deliverables are met on time. She performed SCUBA surveys to delineate and assess the density of eelgrass, collected sediment samples, and served as the FAA-certified remote pilot for the drone imagery. She prepared the monitoring report, analyzing statistical changes over time to evaluate pre-and post-project conditions.

Mariners Cove Beach Club Maintenance Dredge Project, Oak Harbor, WA: 2024–Present

Since 2018, MSA has been responsible for managing all aspects of this dredge project. Joining the dredge team in 2024, Raquel has conducted eelgrass monitoring SCUBA surveys, water quality monitoring and completed a final bathymetry report to ensure the dredge event was compliant with permitting requirements. She completed the beach nourishment monitoring and final report. As Project Manager, Raquel is helping the client through the planning stages of their next dredging effort while navigating the complex regulatory requirements with an aim to find creative, and practical solutions to complex challenges.