



## Joseph E. Longo

Associate Principal and Senior Engineer



### Areas of Expertise

- Groundwater Quality
- Environmental Permitting & Compliance
- Integrated Water Management
- Emergency Preparedness & Response
- Civil Engineering
- Environmental Engineering
- Wastewater Management
- Stormwater Management
- Site Assessment & Remediation
- Training
- Low Impact Design
- Site Design

### Professional Registrations

- Engineer in Training, Massachusetts
- OSHA 40 certified
- Licensed Site Professional Association
- Certified Soil Evaluator
- Incident Command System (ICS-100)
- National Incident Management (IS-700)

### Professional Affiliations

- Board Member, Bourne Financial Development Corporation
- Member American Society of Civil Engineers

### Academic Background

Bachelor of Science, Civil/  
Environmental Engineering  
University of Massachusetts

Joe Longo is an Associate Principal and Senior Engineer at Horsley Witten Group, Inc. (HW). Joe has thirteen years of professional experience focused on hazardous waste site assessment and remediation as well as civil site design development projects for public and private clients. Joe's permitting, design, and construction administration experience ranges from oil and hazardous materials assessment and remediation, to water supply and wastewater treatment plants, civil / site design, as well as permitting at the town, state (MEPA), and federal (NEPA) levels. Joe has directed small to large scale project teams internal to HW and those involving subconsultants including architects, MEP's, land surveyors, commissioning agents, wetland and rare species scientists, among others; as well as coordinating and directing projects through public and private bidding, bid evaluation, contractor selection, and construction administration.

### REPRESENTATIVE PROJECTS

#### Site Design

#### **Driftway and Gannett Road Bicycle and Pedestrian Trail Designs, Scituate,**

**MA:** Principal-in-Charge for the permitting, design, public bidding, review and award of bid, and construction of these 8-foot wide bicycle and pedestrian trails along a high traffic roadways near the center of the Town of Scituate. The paths are approximately 2.5-miles long and included various utility relocations and resource area protection measures including a Notice of Intent through the Conservation Commission.

#### **Gannett Road Bicycle and Pedestrian Trail Design, Scituate, MA:**

Principal-in-Charge for the permitting, design, public bidding, review and award of bid, and construction of an 8-foot wide bicycle and pedestrian trail along a high traffic roadway within the center of the Town of Scituate. The path was approximately 2-miles long and included various utility relocations and resource area protection measures including a Notice of Intent through the Conservation Commission.

#### Wastewater Management

#### **Wastewater Treatment Plant Permitting, Design and Construction,**

**Correctional Facility (DCAM), Norfolk, MA:** Principal-in-Charge for the permitting, design, public bid, review and award, and construction administration of a 500,000 GPD wastewater facility at this active Correctional Facility. Joe directed the following: NOI for Norfolk Concom, Surface water Discharge through MADEP, Design Plans and Bid and Specification in compliance with M.G.L. Chapter 149, weekly meetings, review of shop drawings, RFIs, and change orders.

#### **Wastewater Treatment Plant and Water Supply Well Permitting, Design and Construction, Correctional Facility (DCAM), Plymouth, MA:**

Principal-in-Charge for the permitting, design and construction of a 40,000 GPD wastewater facility and 60,000 GPD water supply well at this active Correctional Facility. Joe directed the following submittals: Environmental Notification Form (ENF) for MEPA, NOI for Plymouth Concom, Project

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Notification for NHESP (rare species), Groundwater Discharge Permit for MADEP, New Source Approval Report for MADEP, Bid and Specification process in compliance with M.G.L. Chapter 149. Joe coordinated weekly meetings, completed review of shop drawings, RFIs, and change orders. Plant and well are up and running.

### *Emergency Preparedness & Response*

**Drinking Water Security Training and Exercise Development, Pennsylvania Department of Environmental Protection:** Designer and presenter at six workshops in every DEP region in Pennsylvania, including a “train-the-trainer” workshop to train PA DEP staff with EPA’s Response-Protocol Toolbox, the Incident Command System (ICS), the National Incident Management System (NIMS) and emergency response.

**Nantucket Memorial Airport, Nantucket, MA:** Principal-in-Charge for the completion of a Spill Prevention Control and Countermeasures Plan (SPCCP), Emergency Response Action Plan (ERAP), Stormwater Pollution Prevention Plan (SWPP) and Phase I Environmental Site Assessments.

**Woods Hole, Martha’s Vineyard and Nantucket Steamship Authority, Various Locations:** Client Manager for all Steamship Oil and Hazardous materials On-Shore and Off-Shore Response Training, Spill Response, hazardous materials inventories, handling, management, and disposal methods. Completed a SPCCP for all Steamship facilities, completed a Vessel Response Plan (VRP) for all vessels that has been approved by the Coast Guard.

**“Train-the-Trainer” Workshops for U.S. EPA Regions:** Helped to create and served as an instructor for this workshop series that provides federal, state, and other training staff with the skills and knowledge necessary to successfully conduct water security presentations and tabletop exercises. Instruction is provided on the Incident Command System, the National Incident Management System and the Response Protocol Toolbox. In addition, participants receive training on how to set up for a water security training exercise, how to conduct the exercise, and how to perform an exercise after action review.

**Water Supply Security and Incident Response Training Workshops, US EPA:** Assisted in developing this workshop for both U.S. EPA Regions 3 (Philadelphia, PA) and 4 (Atlanta, GA). This workshop provided water suppliers with information regarding water system security technologies and terrorist incident prevention, response command structure, and recoverability. The workshop’s target audience included individuals representing water utilities, consultants assisting utilities with emergency planning, as well as local, state, and federal law enforcement officials, emergency services personnel, and leaders. In addition, Joe facilitated a functional exercise for the workshop that focused on the interaction between water supply, emergency, and law enforcement personnel during a bioterrorism event.

### *Site Assessment & Remediation*

**Stage 1 and 2 Environmental Risk Assessment, Barnstable Municipal Airport Terminal Improvement, Hyannis, MA:** Project Manager for the completion of a Stage 1 and 2 Environmental Risk Assessment (ERA) for Upper Gate and Lewis Ponds at the Airport. HW has conducted various tasks, including sample collection, risk assessment analysis, data analysis, presentations and briefings, and other public outreach under contract with the Barnstable Municipal Airport. HW completed pond surface water and sediment sampling, as well as surrounding groundwater sampling and laboratory analysis to determine potential impacts to the environment.

**Oil / Hazardous Materials Assessments, Housing Developments, EA Fish:** Principal-in-Charge for civil and Phase I/II environmental engineering projects at a number of affordable urban housing developments including, asbestos and lead assessment/remediation, oil and hazardous materials assessment and remediation, ALTA land surveying, underground fuel storage tank removals and remediation, stormwater improvements. Properties include former School house conversions to housing in the Metro Boston area.

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**Vessel Maintenance Facility - Brownfield Redevelopment, Steamship Authority, Fairhaven, MA:** Directed the completion of a Phase II Comprehensive Site Assessment, a Phase III Remedial Action Plan, a Phase IV Remedial Implementation Plan, and an Activity and Use Limitations to address soil and groundwater contaminants including petroleum hydrocarbons and metals. Also directed the design, installation, and operation of a bioventing and biosparging soil and groundwater treatment system. System successfully reduced contamination concentrations to below applicable MCP standards.

**Anniversary Park, Yarmouth, MA:** Joe, under the direction of the LSP, completed a Phase II Comprehensive Site Assessment, a Phase III Remedial Action Plan, a Phase IV Remedial Implementation Plan and designed, bid and directed construction of an air sparging and soil vapor extraction system to address soil and groundwater contaminants including petroleum hydrocarbons at these brownfield sites. Joe designed and directed groundwater sampling program and reviews all Phase V reporting to DEP in compliance with the MCP. Joe also directed the application of a proprietary chemical oxidation to the site. Achieved RAO status under MCP at Anniversary Park.

**Blackburn Auto-Salvage Yard, Hyannis, MA:** Managed the assessment and remediation of this auto-salvage yard on behalf of the Barnstable Municipal Airport for future use as an overflow parking facility. Prepared a Remedial Cost Estimate for the negotiation of the Purchase and Sale agreement. Assisted the Airport and Attorneys in determining appropriate Escrow set-aside for remedial actions.

***Low Impact Design***

**LID Affordable Housing Development, Provincetown, MA:** Principal-in-Charge for the civil site design and permitting of a 50-unit affordable housing development with 2,000 square feet of commercial space, including topographic survey, wetland delineation, rare species survey, site design integrating Low Impact Design (LID) elements.

**LID Affordable Housing Redevelopment and Adaptive Reuse, Saunders School, Lawrence, MA:** Principal-in-Charge for this redevelopment project, involving diligence studies, permitting, concept LID design, surveying, final design, and construction cost estimation and assistance to EA Fish Associates, on behalf of the City of Lawrence.

**LID Affordable Housing Development, The Community Builders, Provincetown, MA:** Principal-in-Charge for the civil site design of a 50-unit affordable housing development including 2,000 square feet of commercial space. Directed the civil site design and permitting including topographic survey, wetland delineation, rare species survey, site design including LID including closed and open-channel bioretention stormwater treatment. Presented project at and achieved approvals from Conservation Commission, Zoning Board of Appeals, Planning Board, and Affordable Housing Trust.

**LID Affordable Housing Development, EA Fish Associates, Marion, MA:** Principal-in-Charge for the civil site design of a 48-unit affordable housing development. Presented project at and achieved approvals from Conservation Commission, Zoning Board of Appeals, Planning Board, Board of Health, Marion Affordable Housing Trust. LID elements included: open-channel bioretention stormwater treatment. Also provided land surveying (ALTA), wetlands delineation, and rare species determinations.

**LID Affordable Housing Development, EA Fish Associates, Mashpee, MA:** Principal-in-Charge for the civil site design of a 56-unit housing development. Presented project at Design Review Committee, Zoning Board of Appeals, and Board of Health. LID components included: open-channel bioretention stormwater treatment, 8,500 GPD MicroFAST wastewater treatment plant. Also provided land surveying (ALTA), wetlands delineation, and rare species determinations.

**Brackett Landing Affordable Development, Eastham, MA:** Principal-in-Charge for the local permitting, site design, construction bid preparation and planning, and construction supervision of a 40 unit residential

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development, which included mid-level housing and two commercial use buildings. Water and wastewater disposal management were provided on-site and the development utilized the latest in smart growth principals and stormwater technology.

**(Condensed) Affordable Housing Developments, Various Locations:** Principal-in-Charge of site assessments, civil site design, and permitting projects creating approximately 300 units of affordable housing development in locations in Marion, Mashpee, Hanover, Provincetown, MA and Newport, RI in the past two years. Each project had a variety of permits and design aspects including ASTM Phase I Site Assessments, topographic survey, wetland delineation, rare species survey, water and wastewater design (on and off-site), construction cost estimating, permitting at Conservation Commissions, Zoning Board of Appeals, and Planning Boards.

### *Environmental Permitting & Compliance*

**Bourne Development Campus, Bourne, MA:** Managed the permitting and conceptual design of the proposed Green Technology Park. Permitting will include an EIR with MEPA and a DRI or Development Agreement with the Cape Cod Commission (CCC) DRI process.

**Barnstable Municipal Airport Terminal Improvement, Hyannis, MA:** Project Manager for the federal, state, and local permitting, design, public bid, review and award under CM at Risk for a \$20 Million terminal improvements project. Managed the completion of this complicated project for a terminal, 10 acre parking facility, 1.5-mile new main access road with several MADOT curb cuts and lighted intersection, and new Air Traffic Control Tower. Joe managed the site design, including-stormwater, oil and hazmat compliance, brownfields redevelopment, wetlands protection, traffic mitigation, all to comply with local, state (MEPA) and federal (FAA) regulations.

**Provincetown Municipal Airport Improvements, MA:** Principal-In-Charge of the completion of a MEPA required ENF, EIR, Federal EIS, and a Cape Cod Commission (CCC) Development of Regional Impact (DRI) application. Improvements include taxi-way alignments, fence locations, parking lot increase, and other improvements that impact the various resource areas. Directed wetlands delineations, impact assessments and mitigation planning, rare species inventories, drainage improvements, SPCCP, ERAP and SWPPP. The Airport's location within the Cape Cod National Seashore adds another complicating layer of Federal review to the already complicated project management.

**Private Hangar Permitting and Design, Hyannis, MA:** Principal-In-Charge for the permitting and design of an \$8 Million, 50,000 square foot airport hangar and ancillary office space. Presented project to Cape Cod Commission (CCC) and Barnstable Site Plan Review Committee. Directed site design including compliance with FAA regulations, utilities, stormwater management and hazardous materials spill response plan.

**MCI Water Supply Well, Plymouth, MA:** Principal-in-Charge for the permit, design, public bid, and construction inspection services for a 275' of 6" DI Fire and 950' of 6" DI Potable Water to serve this facility. The project required a New Source Approval permit from DEP, and complex coordination to maintain operations during the upgrade.

**Power Plant Demolition, DCAM, Medfield, MA:** Principal-in-Charge to for the demolition of a power plant at the Medfield Hospital. Joe directed permitting, design, oil / hazardous materials abatement and removal, land survey, wetland delineation and permitting through ConCom, and public bid assistance. Project completed with No Change Orders.

**Various Affordable Housing Development, EA Fish Associates:** Principal-in-Charge for civil and environmental engineering projects at a number of affordable urban housing developments including, asbestos and lead assessment/remediation, oil and hazardous materials assessment and remediation, ALTA land surveying, underground fuel storage tank removal and remediation, and wastewater and stormwater

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improvements. Properties include former School house conversions to housing in the Metro Boston area.

**Soil and Groundwater Assessment and Remediation, Barnstable Municipal Airport, Hyannis, MA:** Directs the comprehensive assessment, remedial treatment system design, implementation and operation at this industrial site with multiple sources of soil and groundwater contamination. Joe has directed subsurface investigations at the airport including the oversight of the removal of underground fuel storage tanks, and leaching pits, and the strategic installation of soil borings and groundwater monitoring wells. Joe assisted in the design of a site-specific groundwater treatment system designed to remediate groundwater contamination at the airport. This treatment system included the design of several source area air sparging and soil vapor extraction systems, and several downgradient air sparging treatment systems, designed to “cut off” the migration of groundwater contaminants. Joe assisted in the completion of a Phase II Comprehensive Site Assessment, a Phase III Remedial Action Plan, and a Phase IV Remedial Implementation Plan to address soil and groundwater contaminants including petroleum hydrocarbons and chlorinated solvents.

**Automobile Dealership, Yarmouth Road, Hyannis, MA:** Directed the assessment and remedial treatment system design and implementation intended to reduce concentrations of petroleum-related contaminants at this automobile dealership. Joe directed the operation, maintenance and necessary modifications to the Air Sparging/Soil Vapor Extraction Treatment system on-site. Operation included the monitoring of specific system component operation, e.g., blower vacuum rate and compressor air supply rates over several zones of influence. Also, vapor concentration readings are obtained at several sample ports to monitor system efficiency. Joe also helped to develop a site-specific groundwater monitoring plan to track contaminant migration. Joe directed in the completion of an Immediate Response Action Plan and several Status Reports, a Phase II Comprehensive Site Assessment, a Phase III Remedial Action Plan, and a Phase IV Remedial Implementation Plan to address soil and groundwater contaminants. The treatment system has significantly reduced concentrations of contaminants to below drinking water standards.

**Retail Property, Route 28, Yarmouth, Massachusetts:** Assisted in the completion of a Phase I Initial Site Assessment and Tier Classification, Phase II Comprehensive Site Assessment, a Phase III Remedial Action Plan, a Phase IV Remedial Implementation Plan, contaminant fate and transport modeling; including drilling contractor scheduling and oversight, soil and groundwater sampling and determination of, and comparison to, applicable regulatory standards at a high traffic retail establishment.

**The Pinehills Residential Development, Plymouth, MA:** Assisted in the design of several on-site sewage disposal systems. Joe also assisted in several comprehensive site investigations, including a pump test of a drinking water supply well, the sampling of surface water to study nitrogen loading, and the oversight of a septic loading study.

**Willowbend Golf Course Expansion, Mashpee, MA:** Assisted in the design of a golf course irrigation system including pump and well specifications and design, and irrigation pond sizing and design. Joe also designed a seasonal irrigation schedule accounting for numerous factors including, golf course water usage rates, cranberry bogs water usage, precipitation, evaporation, leakage among others. Joe also designed a site-specific water quality-monitoring plan in compliance with a Cape Con Commission Development of Regional Impact decision.

**Other- MMR**

**Assessment and Remediation, Operations Building, MMR:** Directed the assessment and remediation of a release of mineral dielectric fluid at the 102nd Fighter Wing’s Combat Communications center. Joe completed a sampling protocol and directed the removal of 30 cubic yards of contaminated soil in the immediate vicinity of the footing of the building. Joe reviewed and submitted all applicable reports to the Massachusetts DEP.

**Assessment and Remediation, Coast Guard Facility, MMR:** Joe directed the assessment and removal of

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soil contaminated with Jet Fuel. The fuel was release during refueling at the Coast Guard facility. Soil was screened in compliance with Massachusetts DEP protocols and the Massachusetts Contingency Plan, (MCP) 310 CMR 40.0000.

**Assessment of Fuel Release, MMR:** Directed a sampling program at the Wastewater Treatment facility at MMR to determine the possibly impact of a release of Jet fuel. The release migrated through the CSO system and into the leaching field associated with the MMR. Joe established sampling protocols which were followed during the year long sampling program.

**MMR Wastewater Plume Impact, Falmouth, MA:** Joe assisted with the completion of an assessment of the wastewater plume impacts to local salt water embayments in Falmouth. The study determined the nutrient loading to these ponds and the percentage of impact contributed by the MMR wastewater plume.

***PROFESSIONAL EXPERIENCE***

Horsley Witten Group, Inc., Associate Principal and Environmental Engineer, July 1998 to present

Environmental Science Services, Inc., Environmental Engineer, 1997 to 1998

Cape Cod Commission, 1995 to 1997

Department of Environmental Protection, Environmental Technician, 1994 to 1995

City of New Bedford, Department of Public Works, Survey Technician, 1993 to 1994