

## **APPENDIX C**

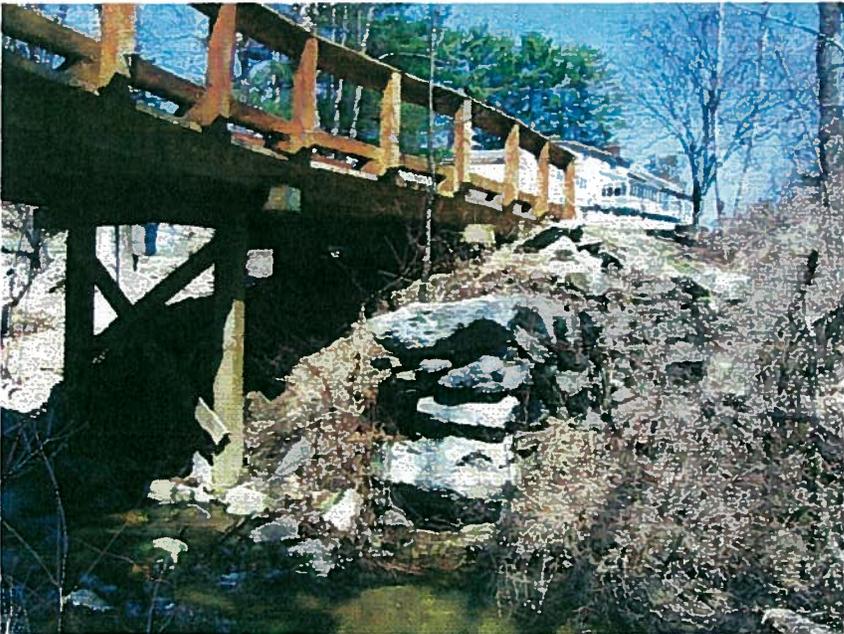
### **ARCHEOLOGICAL PICTURE SETS, 1-10**

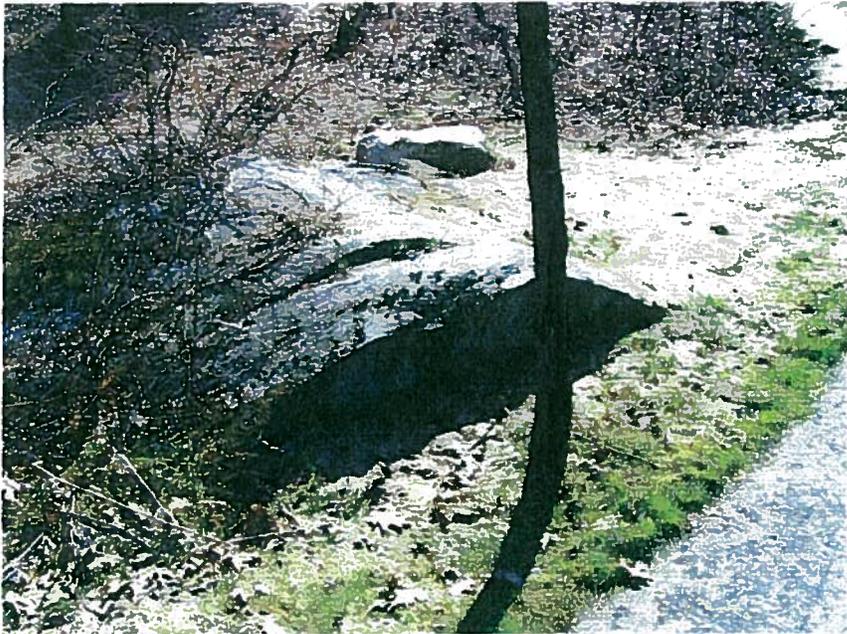
SITE 1





SITE 2





SITE 3



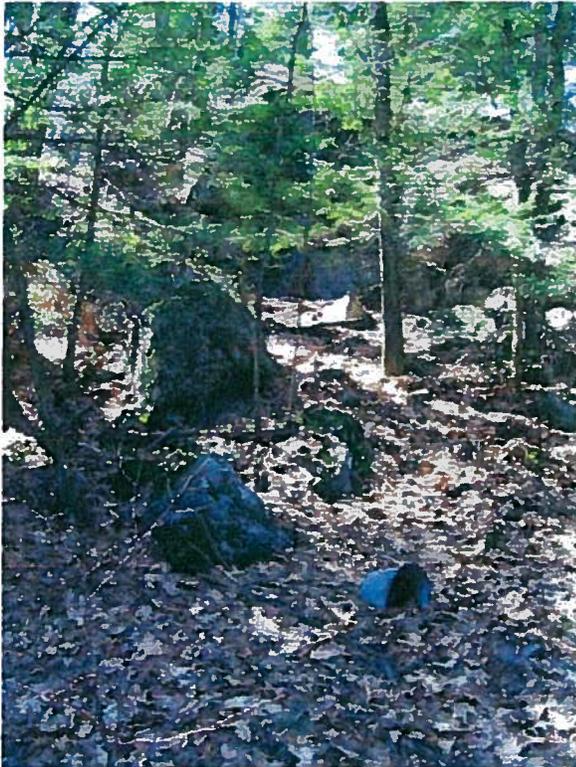


SITE 4





SITE 5





SITE 6





SITE 7





SITE 8





SITE 9





SITE 10





**APPENDIX D**

**SIMPLIFIED WILDLIFE HABITAT EVALUATION FORM**

Project Location (from NOI): The Residences at Quail Ridge, Acton, MAPerson Completing Form: John P. Rockwood, Ph.D., PWSDate: June 5, 2008

### APPENDIX A Simplified Wildlife Habitat Evaluation

**IMPORTANT HABITAT FEATURES:** Direct alterations to the following important habitat features in resource areas may be permitted only if they will have no adverse effect (Refer to Section V)

- habitat for state-listed animal species (receipt of a positive opinion or permit from MNHESP shall be presumed to be correct. Do not refer to Section V).
- sphagnum hummocks and pools suitable to serve as nesting habitat for four-toed salamanders
- trees with large cavities ( $\geq 18$ " tree diameter at cavity entrance)
- existing beaver, mink or otter dens
- Areas within 100 feet of existing beaver, mink or otter dens (if significant disturbance)
- existing nest trees for birds that traditionally reuse nests (bald eagle, osprey, great blue heron)
- land containing freshwater mussel beds
- wetlands and waterbodies known to contain open water in winter with the capacity to serve as waterfowl winter habitat
- turtle nesting areas
- vertical sandy banks (bank swallows, rough-winged swallows or kingfishers)

The following habitat characteristics when not commonly encountered in the surrounding area:

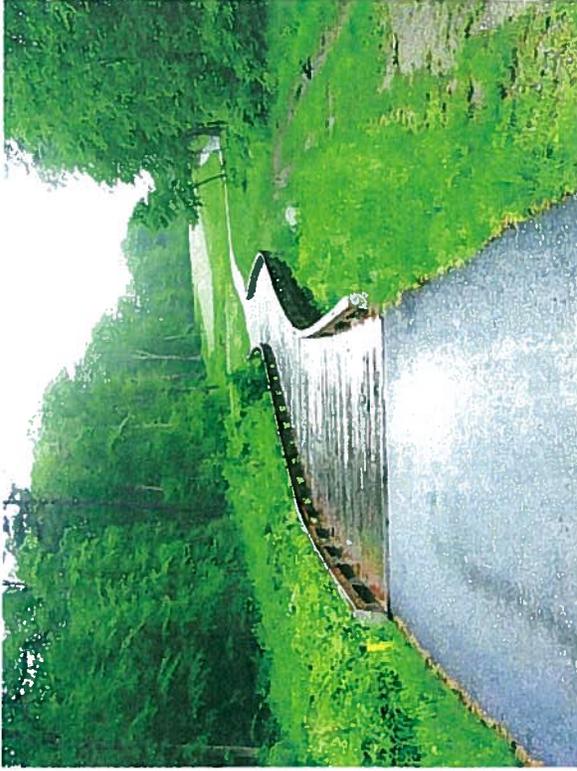
- stream bed riffle zones (e.g. in eastern MA)
- springs
- gravel stream bottoms (trout and salmon nesting substrate)
- plunge pools (deep holes) in rivers or streams
- medium to large, flat rock substrates in streams

**ACTIVITIES:** When any one of the following activities are proposed within resource areas, applicants should complete a Detailed Wildlife Habitat Evaluation (Refer to Appendix B).

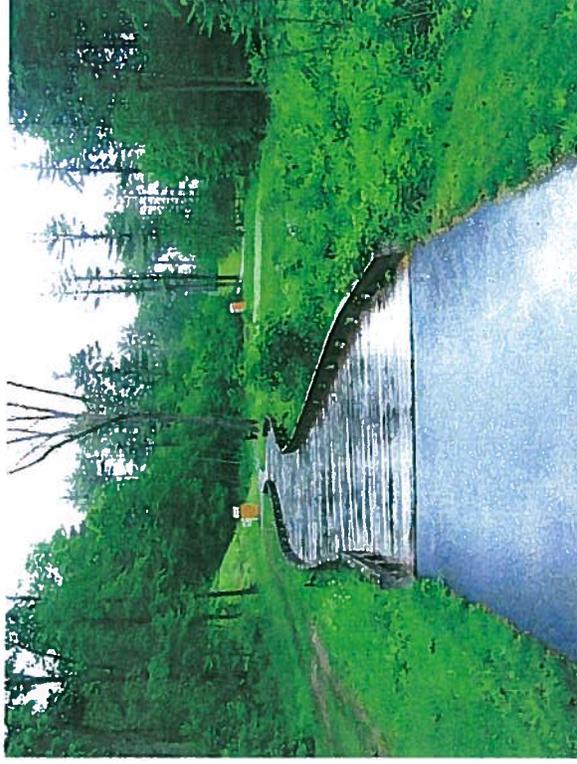
- activities located in mapped "Habitat of Potential Regional or Statewide Importance"
- activities affecting certified or documented vernal pool habitat, including habitat within 100' of a certified or documented vernal pool when within a resource area
- activities in bank, land under water, bordering land subject to flooding (presumed significant) where alterations are more than twice the size of thresholds.
- activities affecting vegetated wetlands >5000 sq. ft. occurring in resource areas other than Bordering Vegetated Wetland
- activities affecting the sole connector between habitats >50 acres in size
- Installation of structures that prevent animal movement
- Activities for the purpose of bank stabilization using hard structure solutions that significantly affect ability of stream channel to shift and meander, or disrupt continuity in cover that would inhibit animal passage.
- dredging (greater than 5,000 sf)

This evaluation was completed for wetland impacts associated with the wetland crossing near Station 11+00 of Quail Ridge Drive. The wetland resources in this area include Bank and Bordering Vegetated Wetlands that have been previously affected by overstory management, a wooden bridge, and a cart path. None of the Important Habitat Features listed above occur within the inspected area, and the work within the inspected area does not consist of any of the above-listed Activities that would require the preparation of an Appendix B. With proposed mitigation, the work proposed within the inspected area will not result in an adverse affect on wildlife habitat of the wetland resource areas. Photographs of the area and a copy of my resume are attached.

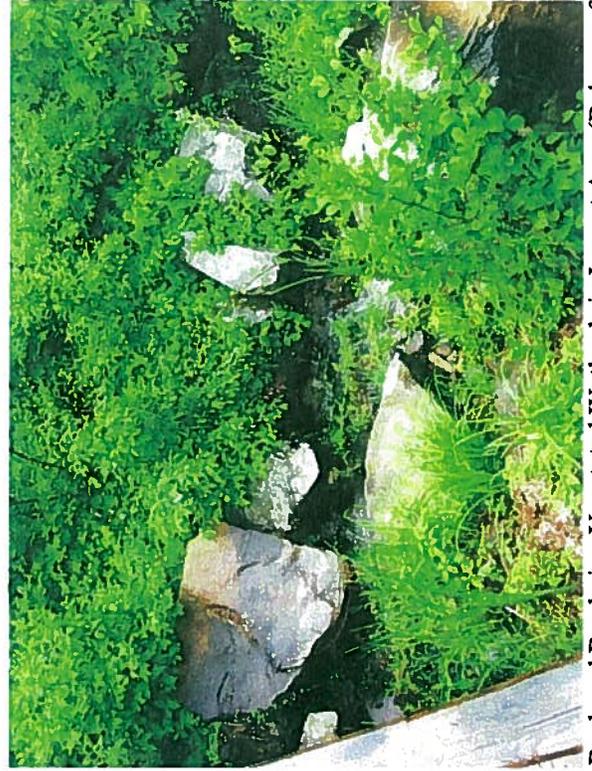
**PHOTOGRAPHS TAKEN AT PROPOSED WETLAND CROSSING ON JUNE 5, 2008**



**Overview of Crossing from East**



**Overview of Crossing from West**



**Bank and Bordering Vegetated Wetlands in Impact Area (Balance of Impact Area is Beneath the Existing Wooden Bridge)**



**Bank and Bordering Vegetated Wetlands in Impact Area (Balance of Impact Area is Beneath the Existing Wooden Bridge)**



# EcoTec, Inc.

## ENVIRONMENTAL CONSULTING SERVICES

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### **John P. Rockwood, Ph.D., PWS** **Senior Environmental Scientist**

Dr. John P. Rockwood has been a Senior Environmental Scientist with EcoTec, Inc since October 1999. Prior to joining EcoTec, Dr. Rockwood was a Chief Environmental Scientist at Sanford Ecological Services, Inc. of Southborough, MA from September 1990 to October 1999. Dr. Rockwood was certified in August 2002 as a Professional Wetland Scientist (PWS) by the Society of Wetland Scientists, the leading professional organization in the field. His project experience includes wetland resource evaluation, delineation, and permitting at the local, state, and federal levels; wildlife habitat evaluation; pond and stream evaluation; vernal pool evaluation, certification, construction/replication, and monitoring; endangered species habitat and impact assessment; wetland replacement, replication, and restoration area design, construction, and monitoring; and expert testimony preparation. He has served as a consultant to municipalities, conservation commissions, the development community, engineering and survey firms, industry, and citizen's groups. He has managed and participated in a variety of wetlands related projects ranging in scope from single-family house lots to subdivisions, commercial developments, golf courses, a water park, and regional malls. He has assessed the potential impacts of stormwater runoff, landfill leachate, and hazardous waste sites on endangered vertebrate and/or invertebrate species, including the spotted turtle, marbled salamander, wood turtle, triangle floater mussel, and squawfoot mussel, and has conducted and/or directed surveys, delineated actual habitat, and/or developed mitigation strategies necessary to protect endangered vertebrate, invertebrate, and plant species, including the spotted turtle, eastern box turtle, wood turtle, marbled salamander, ringed boghaunter dragonfly, eastern elderberry long-horned beetle, Mystic valley amphipod, and threadfoot, and their habitats from proposed development related impacts. He has conducted environmental impact assessments, and has prepared MEPA documentation related to an office park, a train station, a water park, a residential subdivision, a landfill, and a regional mall. Dr. Rockwood also has extensive experience in the area of environmental site assessment related to possible oil and hazardous material contamination. He has conducted numerous environmental assessments, several including subsurface investigations, for sites located in Massachusetts, and has conducted preliminary environmental assessments for properties located in New York, New Hampshire, and Rhode Island. He has conducted environmental screenings and risk characterizations for disposal sites in Massachusetts under the MCP, including two disposal sites that have had the potential to affect state listed vertebrate and invertebrate species, and has utilized the EPA Rapid Bioassessment Protocol for macroinvertebrates to assess potential impacts of disposal sites on streams and rivers. He has served as the environmental contractor to the Franklin Consolidated Office of the Federal Deposit Insurance Corporation (FDIC-FCO) for 16 months. At the FDIC, he reviewed environmental reports, prepared scopes-of-work for site assessments, and provided technical advice to FDIC employees related to environmentally compromised assets. Dr. Rockwood has designed, conducted, and evaluated numerous surface water and groundwater monitoring programs. His prior research includes a laboratory study of the effects of low pH and aluminum on dragonfly nymphs and a field survey of the impact of chlorinated sewerage effluent of algal periphyton community dynamics. Dr. Rockwood is the co-author of a text book in aquatic biology, and is the principal author of three peer-reviewed research publications in the field of aquatic toxicology that address the effect of low pH and aluminum on nymphs of the dragonfly *Libellula julia*. Dr. Rockwood has served as the Assistant Editor of the AMWS Newsletter from May 2003 to November 2004, and as the Editor of the AMWS Newsletter from November 2004 to the present.

**Education:** Doctor of Philosophy (Ph.D.): Aquatic Pollution Biology – Plant and Soil Sciences  
University of Massachusetts at Amherst, 1989  
Bachelor of Science (B.S.): Environmental Sciences, *Summa Cum Laude*  
University of Massachusetts at Amherst, 1984

**Professional Affiliations:** North American Benthological Society  
Sigma Xi, Full Member  
Association of Massachusetts Wetlands Scientists  
Society of Wetland Scientists  
Massachusetts Association of Conservation Commissions

**Certifications:** Society of Wetlands Scientists Professional Wetland Scientist, Certification Number 1349  
OSHA Health and Safety Training, 40-Hour Training, 29 CFR 1910.120  
OSHA Health and Safety Training, 8-Hour Supervisor Training  
OSHA Health and Safety Training, 8-Hour Refresher Training

