



Publication

Preserving the foundations of Boston's historic structures: Wood piles, groundwater levels, and underpinning

Many buildings in [Boston](#) are founded on untreated wood piles, which can deteriorate and lose their structural capacity if groundwater levels are lowered below the tops of the piles, exposing the wood to air in the unsaturated soils that surround the piles. Today, the subsurface conditions beneath several of Boston's historic neighborhood areas continue to be plagued with low groundwater levels deteriorating the wood piles that support some of [Boston's oldest and most beautiful buildings](#).

[Mike Atwood](#), Principal Consultant at Haley & Aldrich, collaborated with the Boston Groundwater Trust to produce a series of three video documentaries that provide a brief overview of how colonial [Boston](#) has grown in land mass to become the city that it is today; how groundwater levels are monitored and managed; and the process of identifying and repairing wood piles that have become compromised. The three-part series of videos was awarded the prestigious Golden Telly Award in May 2018.

Part one: Preserving Boston's first deep foundations

Part two: Preserving and maintaining groundwater levels

Part three: The process of underpinning