# South Middleton Dam Removal Fact Sheet

IPSWICH RIVER WATERSHED ASSOCIATION

The dam is owned and operated by Bostik Inc. Since the dam no longer serves its original purpose, creates liability for the owner and is costly to maintain they are proposing to remove it.

## FREQUENTLY ASKED QUESTIONS

### What will become of the sediments trapped behind the dam?

- A relatively small amount of sediment will be released downstream which will help restore the natural sediment regime of the river (as would have occurred naturally without the dam). The sediments have been tested extensively for contaminants according to state and federal laws. All levels have been determined to be below safety thresholds.

### How will dam removal affect water levels?

- As a "run of the river" dam, there will be no change to water levels downstream but upstream water levels will lower to pre-dam levels under most flows. Upstream flooding will be reduced as the natural floodplain will be restored. Reductions in upstream water levels will be most evident in the vicinity of the Riverside Drive community and observable changes will diminish quickly as you move upstream in the vicinity of the Keenan Conservation Area.

### How will this affect public water supplies?

- There will be no impact on public water supplies except for the City of Lynn intake where lower water levels will reduce pumping efficiency from a 150 to 78 day window. This can be mitigated with the installation of a newer intake structure and/or pump. The project team has offered to help find grant funds for the City to upgrade its intake and pump.

### What about the historic value of the dam and site?

- The dam was evaluated for its historic value. A team of historians and archeologists have prepared a comprehensive Archeological Site Avoidance and Protection Plan (ASAPP) that will protect these resources in perpetuity.

### Am I going to be able to paddle through the site after the dam is removed? Will there be public access to put in/pull out canoes?

- Yes you can paddle through but there will be no public access on the Bostik Property which will remain private.

### What is the old mill pond going to look like after removal?

- The site will look much like the river upstream and downstream of the current site. Native plants will be installed to help jump-start revegetation and to add habitat value. As seen at other local dam removal projects, the site will recover quickly and revert to pre-dam conditions within 1-2 growing seasons.

## BENEFITS OF REMOVING THE SOUTH MIDDLETON DAM

Healthy, connected rivers are more resilient rivers.

- The South Middleton dam is considered a Significant Hazard by the MA Office of Dam Safety. Removal will relieve Bostik of maintenance costs and liability.
- Removal of the dam will help restore native fish populations including river herring (alewife and blueback herring), sea lamprey American eel, brook trout, fall fish and white sucker.
- Removing the dam will allow sediment to naturally move downstream to nourish marshes and other habitats.
- Removal of the dam will restore upstream connectivity to 57 miles of river and tributary habitat, as well as access to 119 acres of headwater ponds that were historically major spawning and nursery areas for migratory fish- which makes this one of the largest river restoration opportunities in the state of Massachusetts.
- The dam is a significant barrier that boaters must now portage around. Removing the dam will improve recreational boating opportunities.

## PROJECT TEAM

- Bostik Inc. the private dam owner initiated the study in 2014; The MA Division of Ecological Restoration, NOAA Restoration Center, Interfluve and the Ipswich River Watershed Association (IRWA) are assisting Bostik with project management.
- The consultant team was comprised of: Inter-Fluve Inc. - River Modeling and Conceptual Design; SGH - Structural Engineering; PAL - Historical & Cultural Resources.

## FUNDING SOURCES

- MA Division of Ecological Restoration (DER), US Fish and Wildlife Service (USFWS), NOAA Restoration Center, the Cabot Trust and American Rivers.

## GENERAL BENEFITS OF DAM REMOVAL

Under Massachusetts and Federal law, dam owners can be liable for damage caused by dam failure or dam related accidents.

**In general, dam removal leads to:**

**Restoration of:**

- Habitat conditions and natural river processes by removing artificial ponded habitat and stagnant water upstream.
- Natural riverine and wetland conditions. Dam removal may result in changes to wetland types but rarely results in wetland loss. Due to well-understood resource area benefits, dam removal is encouraged under the Wetlands Protection Act.
- An important ecosystem for migratory fish populations, especially those that travel between the sea and fresh water during their life cycles such as river herring, shad, American eel, lamprey, rainbow smelt, and sea-run brook trout.
- Sediment transport inherent to healthy river systems and return of trapped micro-nutrients back to estuarine and ocean primary producers.

**Reduction in:**

- Flooding upstream by restoration of floodplain storage capacity.
- Risk of catastrophic flooding downstream in the event of dam failure.
- Operation and maintenance costs for dam owners mandated to provide fish passage by the MA Division of Marine Fisheries.

**Increase in:**

- Public safety; dams are ephemeral and subject to failure over time. Proactive dam removal can permanently eliminate future risk to public and private property and alleviates dam owners from ongoing maintenance costs and liability.
- Resilience to climate change for man-made structures and wildlife.
- Fish species that depend on clean, flowing water.

**FOR MORE INFORMATION CONTACT:**

KAITLYN SHAW
KSHAW@IPSWICHRIVER.ORG
IPSWICH RIVER WATERSHED ASSOCIATION

RESTORATION PROGRAM MANAGER
978-412-8200