# Mill Redevelopment: Reducing Impact - Enhancing Value















#### Natural Resource Considerations







Wetlands, Waterways and Tidelands
Protected Species
Historic and archaeological Resources

Stormwater
Flooding
Energy
Zoning



#### Wetlands, Waterways and Tidelands

- Any bank, freshwater wetland, coastal wetland, beach, dune, tidal flat, marsh or swamp bordering on the ocean, any estuary, creek, river, stream, pond, lake, or certified vernal pool
- Land under any of the water bodies listed
- Land subject to tidal action, coastal storm flowage, or flooding

MA Department of Environmental Protection



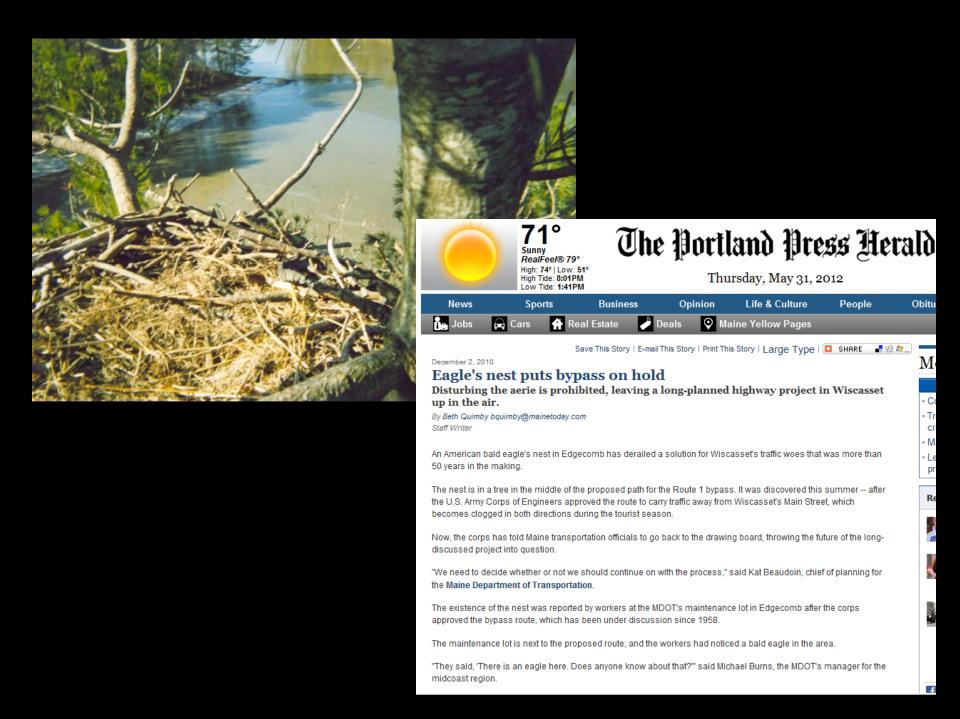


#### Protected Species

• Regulations protect animals and plants that are endangered, threatened or of special concern

MA Natural Heritage & Endangered Species Program





#### Historic and Archaeological Resources

- New construction projects or renovations that require state or federal funding, licenses, or permits
- Triggers review by the Massachusetts Historical Commission (MHC)





### Indian artifacts found at Mukilteo dock site

Tribal and state officials say the shell midden won't necessarily thwart the ferry terminal project in Mukilteo.

By Bill Sheets, Herald Writer

MUKILTEO --The area proposed for a new ferry terminal in Mukilteo is laced with a shell midden containing Indian artifacts, but state and tribal officials say it won't necessarily pose an obstacle to the project.

The midden contains items such as tools and spear points made from stone and animal teeth and bones, according to a draft environmental document for the ferry project.



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#### Stormwater

- Permits required for discharges to water bodies
- Construction with impact of  $\geq 1$  acres



#### Flooding

- Understand flood risk: floodsmart.com
- Comply with MA state building code
- Community floodplain regulations











## Energy



- Weatherization
- Relatively clean, low-cost fuel
- Alternative energy











### Maine Sunday Telegram

Sunday, June 10, 2012

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July 21, 2010

#### Saco finds turbine is a turn for the worse

The city wants the company's former CEO to make amends for the underperforming unit.

By Beth Quimby bquimby@mainetoday.com Staff Writer

The Saco City Council wants to meet with the head of the company that sold the city a wind turbine before deciding what to do about the broken structure.

The turbine, which cost \$207,000, including \$77,000 for the installation, went into operation in February 2008. It was supposed to generate 90,000 kilowatt hours --\$12,600 worth -- of electricity annually for 10 years, according to the city's contract with Entegrity Wind Systems of Prince Edward Island, But it never came close.

The turbine produced 16,000 kilowatt hours during its first 18 months, then broke down several months ago.

The council decided Monday night to meet with James Heath, the former chief executive officer of Entegrity, which was declared bankrupt by a Canadian court in October. Heath had offered at one point to buy the turbine back for \$130,000



The wind turbine at the Saco Transportation Center has not generated the amount of electricity the city was promised during the unit's first 18 months of operation, and now it

#### Most

#### SHARED COMMENTED READ

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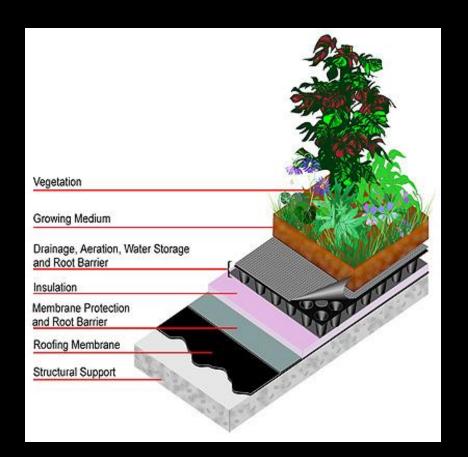
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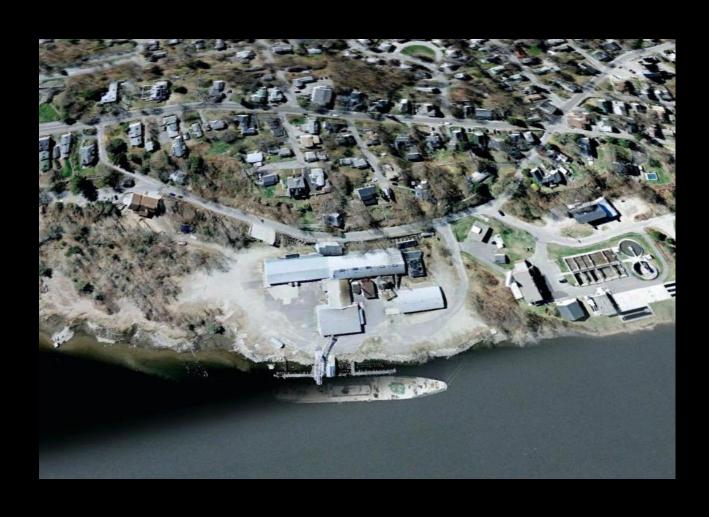






Green roofs

## Zoning



#### Former Maine cannery site in Bath up for sale

The Associated Press Posted Sept. 29, 2010, at 8:52 a.m.











BATH, Maine — The site of a former seafood cannery on the Kennebec River in Bath is up for sale.

The 5.6-acre property is owned by Bruce Poliquin, an unsuccessful candidate for the Maine Republican Party's gubernatorial nomination.

The former Stinson Seafood cannery is on the market for \$2.5 million.

The Portland Press Herald says the decision means Poliquin has given up on a plan to convert the site into a mixed-use development with condominiums, a restaurant, shops and a marina.

But the city of Bath refused to rezone the area to accommodate Poliquin's proposed development.

The vacant cannery building was destroyed by a May 2006 arson fire.

































## Low-Impact Reuse







#### Cottonmill Mushroom Farms

## Former Park Dale Cotton Mill Landis, NC



- 500 pounds per week of oyster and shitake mushrooms
- Grown using sawdust, straw and plastic bags

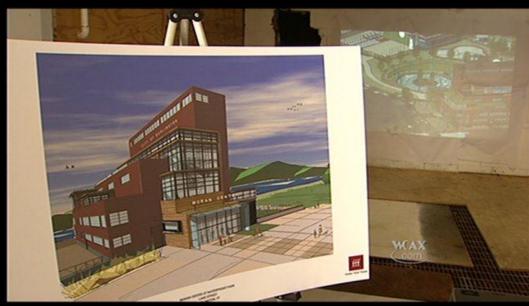




#### Adventure Sports

Moran Power Plant Burlington, VT





- Prototype in Kinlochleven,
   Scottish Highlands
- Developed by Ice Factor®
- Former aluminum smelter





- Climbing walls, rink, gym, high wire adventure
- Up to 138,000 visits annually







#### Hydroponic Farming

#### Village Farms, Buffalo, NY

 Former electrical substation next to steel mill and tank farm



Tomato production on 18-acre facility







# Battlefront Paintball Hubbard. Ohio





- Site of gunpowder mill built in the 1800s
- Explosion in 1954, buildings left in ruins
- Constructed in 2005





#### Art and Film Studios

#### Battersea Power Station, London, England

- Aliens
- Children of Men
- Dark Night
- Full Metal Jacket



# Park and Museum Mills District Minneapolis, MN



- Former flour mill remains preserved in waterfront park
- "World's largest flour mill" preserved for museum







## Closing







## Understand challenges early.

- Natural resource assessment
- Cultural and archaeological Evaluation
- Zoning requirements
- Flood risk
- Energy efficiency

Meet with regulators. Engage the community.

Seek creative solutions to turn reduce impact and add value.