# Mill Redevelopment: Reducing Impact - Enhancing Value















### Natural Resource Considerations







Wetlands
Protected Species
Stormwater
Flooding
Energy
Zoning



#### Wetlands

• No person shall excavate, remove, fill, dredge or construct any structures in or on any bank, flat, marsh, or swamp in and adjacent to any waters of the state without a permit from the department.

New Hampshire
Department of
Environmental Services

• An area that is inundated or saturated by surface water or ground water at a frequency and duration sufficient to support, and that under normal conditions does support, a prevalence of vegetation typically adapted for life in saturated soil conditions.







#### Protected Species

• 40 listed threatened or endangered animals in New Hampshire

New Hampshire Fish and Game

• 386 Rare plants

New Hampshire Division of Forests and Lands



# Scribner's Mill Harrison, ME





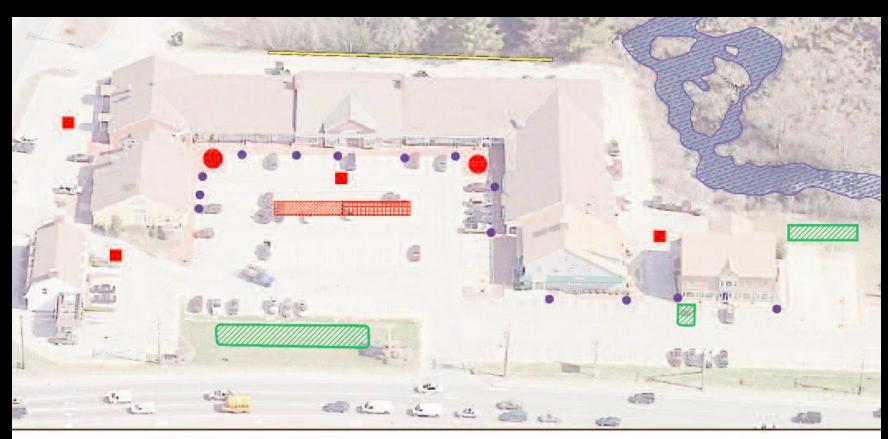
#### Stormwater

- Permits required for discharges to water bodies
- "Construction General Permit" for construction projects that disturb ≥1 acre of land



#### Low-Impact Development

Pennichuck Square Merrimack, NH



- Drywell
- Raingarden
- Biofilter, Bio-Retention Area, Level Spreader
- Vegetated Buffer Strip

- Infiltration Divider with Porous Asphalt & Permeable Pavers
  - Roof Leader Infiltration Well



Pennichuck Brook



## Winnipesaukee River Tilton, NH

• Former Pillsbury Textile Mill





**ORW Landscape Architects** and Planners



#### Flooding

- Understand flood risk: floodsmart.com
- Acquire Insurance
- Comply with community floodplain regulations











### Zoning

Former Stinson Cannery Bath, ME



### 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.





## Energy



- Weatherization
- Natural Gas
- Central Heating Systems
- Alternative energy







Whitin Mill Whitinsville, MA



Saco Island Saco, ME



### Maine Sunday Telegram

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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 click image to enl
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...

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- Bill Nemitz: State's idea of friendly message:
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- Wisconsin Gov. Scott Walker survives recall
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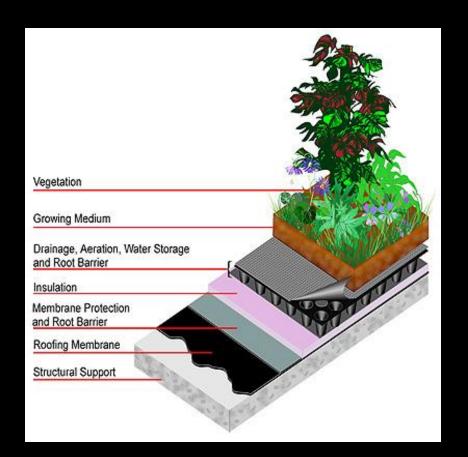
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Green roofs





























## 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

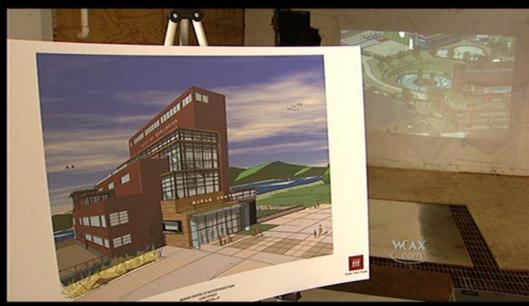




#### Adventure Sports

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

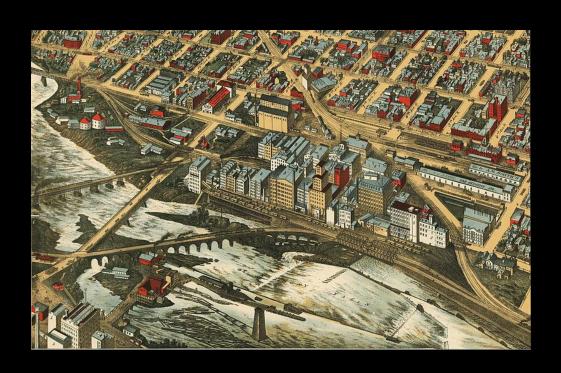




- Site of gunpowder mill built in the 1800s
- Explosion in 1954, buildings left in ruins
- Constructed in 2005



# Park and Museum Mills District Minneapolis, MN



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









#### Art and Film Studios

#### Battersea Power Station, London, England

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



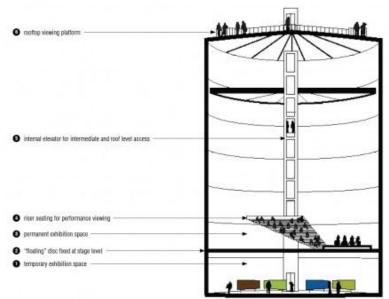
### Emscher Park Ruhr Valley, Germany

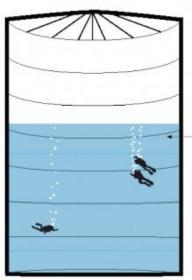








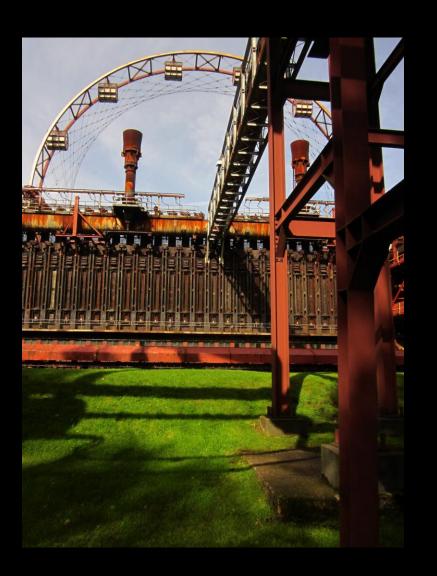




scubs training tank.

Gasometer, Duisburg (left)
The Thyssen innexons gas tark now serves as a soubs diving training
tark, one of the many strategies for recreational re-purposing, which
Latz + Parhar developed for the Duisburg North Landscape Park.

Gasometer, Oberhausen (opposite page)
The gasometer in Oberhausen once field nothing but waste gas from on and steel-making. Since its 1994 removation however, if has held installations such as The Wall (Christic and Jean Claude), The Ball is Round (German Football Association), Five Angels for the Millennium (Bill Viola) and several others.



### 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 reduce impact and add value.