

USING THE PLANNING PROCESS TO SOLVE ENVIRONMENTAL PROBLEMS

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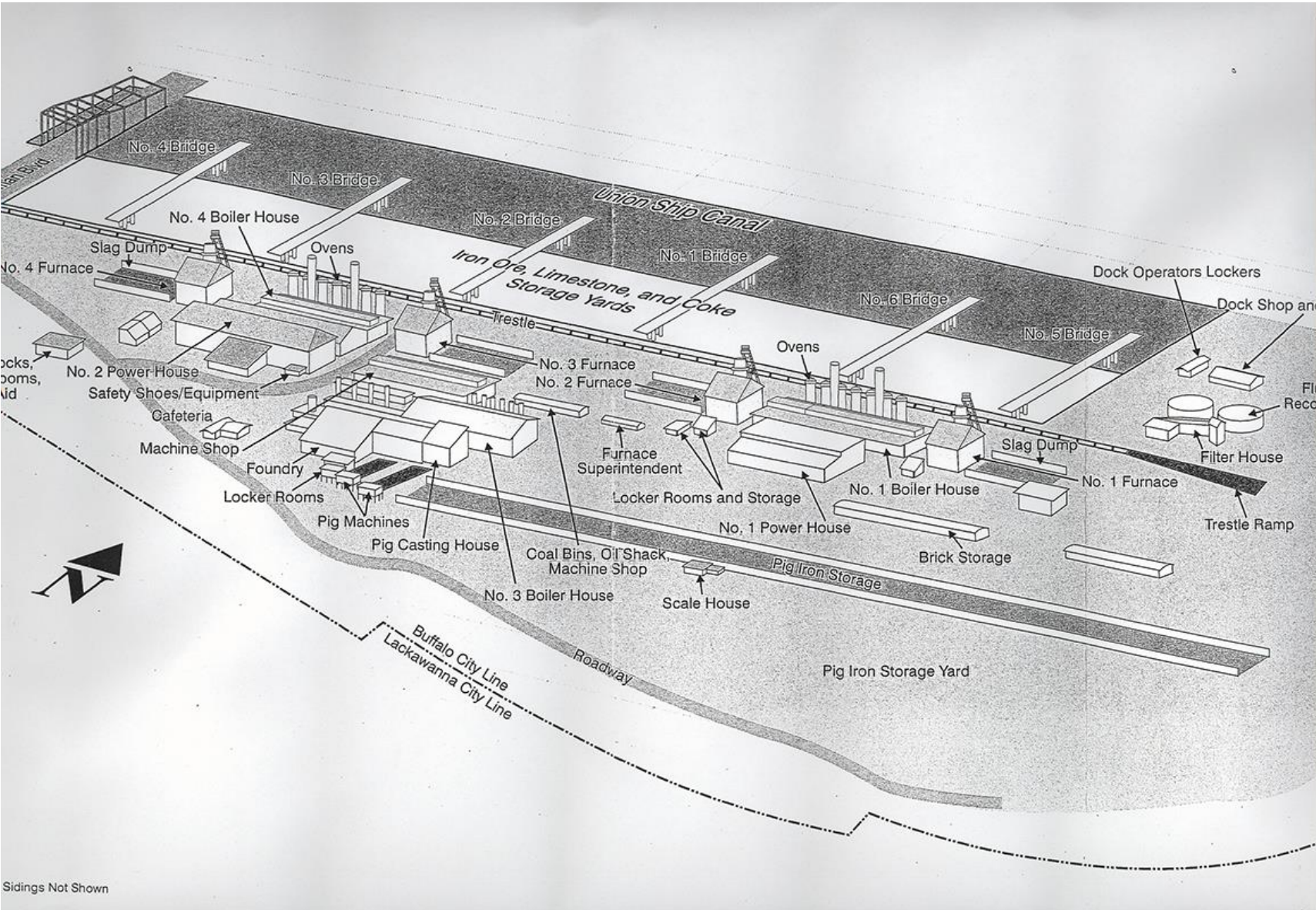
This presentation reports
research that focuses on
the process
of solving diverse
environmental problems.

Analysis of the case studies resulted in assigning the case studies into three categories:

- 1. 'Remediate and Redevelop'**
- 2. 'Environmental Amenity with an Opportunity'**
- 3. 'Autonomous Actors'**

The **Union Ship Canal** is an example of one of the *'Remediate and Redevelop'* case studies. The Ship Canal property of 118 acres (47.8 hectares) was the former site of the Hannah Furnace plant, an iron smelting facility

Hannah Furnace with Union Ship Canal in 1940s



Sidings Not Shown

Union Ship Canal after remediation, before park construction in 2007



Ship Canal Commons Park at Union Ship Canal 2015



'Environmental Amenity with an Opportunity'

Nine of the case studies involve a situation where there was an opportunity to intervene to restore, enhance, preserve or protect an environmental amenity.

Seneca Bluffs is a 15 acre (9 hectare) parcel of land bordering the meandering Buffalo River about 5 miles south of the downtown in the City of Buffalo, New York.

After the abandoned property became the site for deposition of construction and excavation fill material and for illegal dumping, it became overrun by invasive species.

A monoculture of Mugwort, an invasive species at Seneca Bluffs



Seneca Bluffs fall 2005, one growing season after planting



Seneca Bluffs fall 2009, after fourth growing season



Seneca Bluffs 2013 with unintended groundcover damage from invasive species control



Six of the cases were
‘Autonomous Actors’ case studies
that involved a single organization
that was sufficiently autonomous
that they were able to initiate,
plan, finance, and implement a
project to solve a specific instance
of an environmental problem.

The **Green Infrastructure Pilot Project** is
an example of one of the
'Autonomous Actors' case studies

The pilot project is to evaluate the use of green infrastructure to deal with stormwater as an environmentally appropriate and cost-effective method of reducing or eliminating combined sewer system overflow problems.

Green Infrastructure rain garden on a *residential st.*



Green Infrastructure rain garden *commercial street*



Solving environmental problems often differs from the process to create community land use plans

1. Problem identification
2. Technical complexity of the problems
3. Greater diversity and range of experts and stakeholders
4. Scale of external funding needed
5. Proposal writing for pilot projects is often needed to fund research

Educating Environmental Planners

1. They must have at least a broad-brush understanding of the specific environmental problem.
2. They must have confidence in their ability to understand at a basic level technical scientific or engineering methods.
3. They must have a basic understanding of different methods of solving the environmental problem.

Educating Environmental Planners

continued

4. Planners must master the basic jargon used by experts to participate in collaborative environmental problem solving efforts.
5. Assigned course readings, class discussions, and assigned papers requiring discussion of the problems and methods, as well as include important jargon can help students learn and gain confidence.

The End