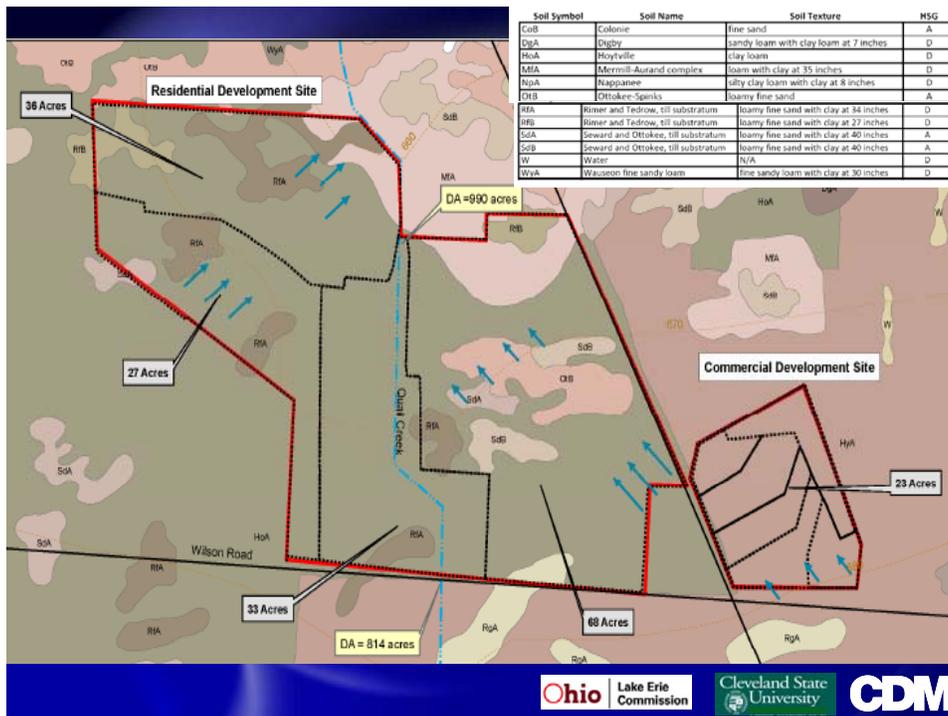


## Decision Making Process for Site Planning in the Lake Erie Basin

### Guiding Principles:

- ◆ Design to established project objectives
- ◆ Integrate existing water and terrestrial resources into site design
- ◆ Fix “dysfunctional” streams
- ◆ Focus on controlling the flow – pollution control will follow
  - “Start at the Source” to manage runoff
  - Control all runoff per site conditions: infiltrate & evapotranspirate & detain
- ◆ Use “Triple bottom line” approach to identify multi-objective benefits: community & environment & financial



## Case Study Site Information

### Residential Development Site (See Figure 1)

Proposed development is a single-family residential subdivision.

#### Site Characteristics

Property Area, acres	165
Predevelopment Land Use	Pasture
Existing Water Resources	
Quail Creek	
Length, ft	2,192
Slope, ft/ft	0.006
Upstream Drainage Area, acres	814
Downstream Drainage Area, acres	990
Property Purchase Price	\$11,400 / acre

#### Applicable Regulations

Zoning Regulations	<ul style="list-style-type: none"> <li>■ Single-Family Residential</li> <li>■ Minimum of 20 percent open space.</li> <li>■ Minimum lot size of 0.20 acres.</li> </ul>
OEPA General Construction Permit	<ul style="list-style-type: none"> <li>■ Post-Construction BMPs are required.</li> <li>■ WQv is equal to runoff from 0.75 inch precipitation event</li> <li>■ Designated drawdown for hydrologic control</li> <li>■ Pollutant removal effectiveness</li> </ul>
Flood Control Regulations	<p>Critical Storm Methodology:</p> <ul style="list-style-type: none"> <li>■ Post development 100-year peak discharge must be less than or equal to predevelopment 10-year peak discharge.</li> <li>■ Post development 10-year peak discharge must be less than or equal to predevelopment 1-year peak discharge.</li> </ul>

**Commercial Development Site (See Figure 1)**

Proposed development is a retail commercial site with 689,000 sq. ft. of floor space.

**Site Characteristics**

Property Area, acres	23
Predevelopment Land Use	Agriculture
Existing Water Resources	None
High Infiltration Area, acres	0
Property Purchase Price	\$11,400 / acre

**Applicable Regulations**

Zoning Regulations	<ul style="list-style-type: none"> <li>■ Commercial</li> <li>■ Parking requirements                      First 50,000 sq. ft. of floor area: 1 space per 300 sq. ft.                      50,000+ sq. ft. of floor area: 1 space per 375 sq. ft.</li> </ul>
OEPA General Construction Permit	<ul style="list-style-type: none"> <li>■ Post-Construction BMPs are required.</li> <li>■ WQv is equal to runoff from 0.75 inch precipitation event</li> <li>■ Designated drawdown for hydrologic control</li> <li>■ Pollutant removal effectiveness</li> </ul>
Flood Control Regulations (met with downstream regional facility)	<p>Critical Storm Methodology:</p> <ul style="list-style-type: none"> <li>■ Post Development 100-year peak discharge must be less than or equal to Predevelopment 10-year peak discharge.</li> <li>■ Post Development 10-year peak discharge must be less than or equal to predevelopment 1-year peak discharge.</li> </ul>