

# RIDE Study

## Regional Intercommunity Drainage Evaluation Study

---

### Purpose

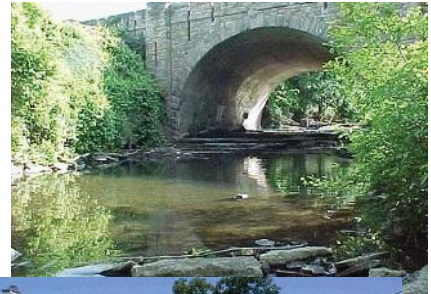
- To study the northeast Ohio drainage problems, which have tripled since 1978.
- To provide community leaders and their constituents an overview of critical flooding and erosion problem areas.

### Study Areas

The RIDE Study covered seven major drainage areas, each composed of two or more watersheds. The nearly 358-square-mile area encompasses all or part of 72 communities.

### The study:

- Includes the entire District Service Area, except for previously-studied combined sewer areas which contribute no intercommunity storm drainage.
- Excludes major rivers (Cuyahoga River, Rocky River, Chagrin River) where storm drainage problems are largely caused by flow upstream of the District Service Area.
- Includes watershed areas upstream of the District Service Area which contribute flows to intracommunity storm drainage areas within the District Service Area.
- Focuses evaluation on watersheds or portions of watersheds with significant intercommunity storm drainage and/or problems.



### Problems Causing Greatest Impact

Of the 586 intercommunity problems evaluated during the RIDE Study, there were 183 [flooding](#) problems, 264 [erosion](#) problems and 139 [debris](#) problems. Each location may have more than one type of problem. Therefore, more problems were reported than there are locations.

***“The intercommunity drainage system is truly a shared resource, with many parties responsible for its management and upkeep.”***

## Solutions

The RIDE Study developed four alternative types of capital solutions to intercommunity storm drainage problems that present an immediate threat to buildings, roadways, and infrastructure including:

- **Conveyance Improvements** are structural measures that control flooding by moving runoff away from buildings and roadways, such as widening and restoring stream channels and constructing new drainage infrastructure (e.g., culverts, bridges, or storm sewers).
- **Storage / Detention Improvements** are structural measures that control flooding by temporarily holding drainage in facilities such as excavated detention basins and hydrobrakes in storm drain inlets that allow roadways to be used for storage.
- **Floodplain Management Improvements** are structural and nonstructural measures that protect buildings and roadways from flooding, such as floodplain preservation, flood prevention with berms and walls, and the purchase of flood-prone properties.
- **Combination Improvements** are a logical, cost-effective set of the previous three types of options for the watershed.

## Shared Drainage, Shared Responsibility

The intercommunity storm drainage system is truly a shared resource, with many parties responsible for its management and upkeep. Most of these open storm drainage systems lie outside the public right-of-way with few easements for maintenance. Currently, no formal mechanism exists for resolving regional stormwater management issues among contributing jurisdictions. Obviously, cooperation among jurisdictions will be necessary to address the drainage issues identified by the RIDE Study.