

100 years
in the
Great Miami River Watershed

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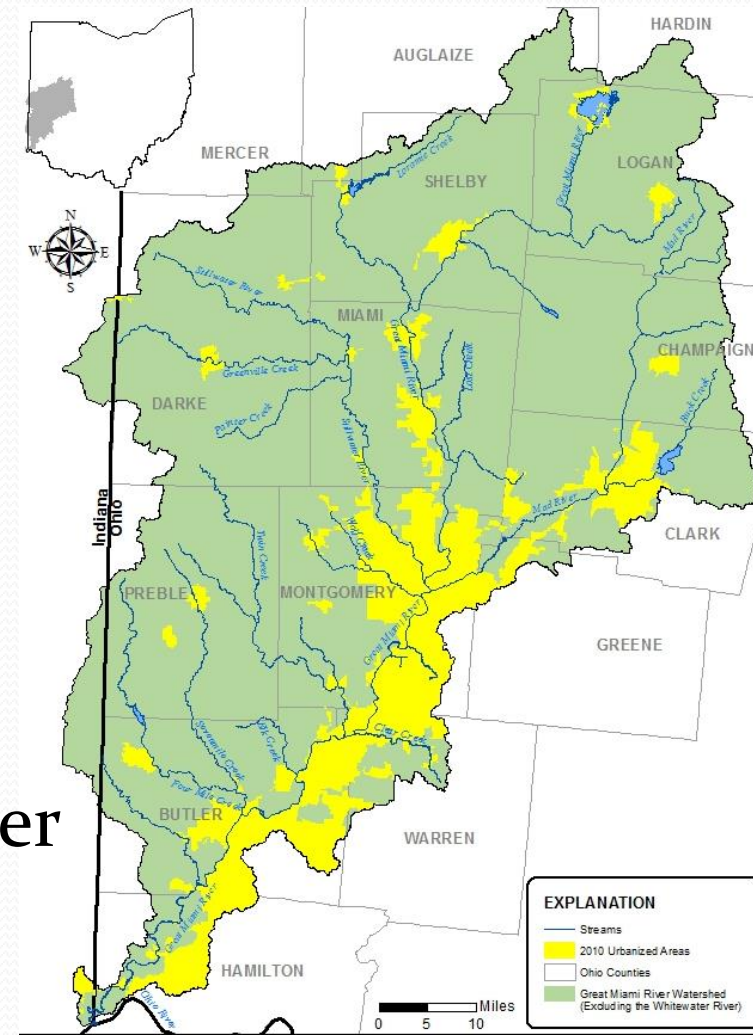
MCD

MIAMI CONSERVANCY DISTRICT

Ohio's

Great Miami River Watershed

- 4,000 mi²
- Major tributaries:
 - Great Miami River
 - Stillwater River
 - Mad River
 - Wolf and Twin Creeks
- 1.5 million residents
- Dayton is largest city
- Excellent/abundant groundwater
- > 70% of land is agriculture



Rivers make great cities

- “America is a great story and there is a river on every page of it.”
- Up the Great Miami River in 1796
- By 1840 - 6,000 inhabitants
- Goods moved by canal - cotton, iron, wool, etc.



But not when it floods...



Before MCD

Cities encroached
into river channel



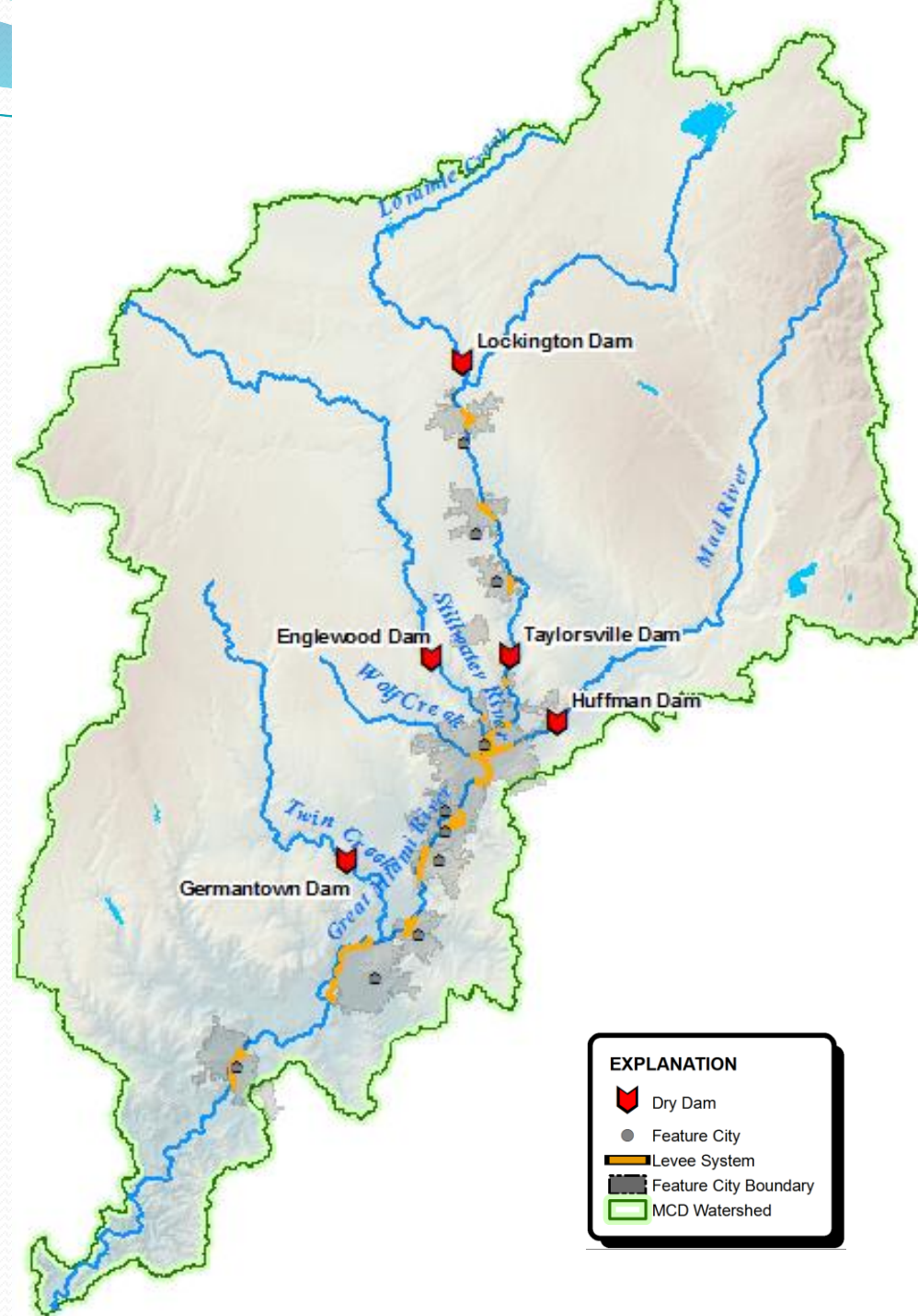
Flood Protection as a System

- Proposed by Arthur Morgan
- Considered radical
- Never before attempted
- Systems-based approach
- “Always consider the whole”
 - Construction Camps
 - Recreation



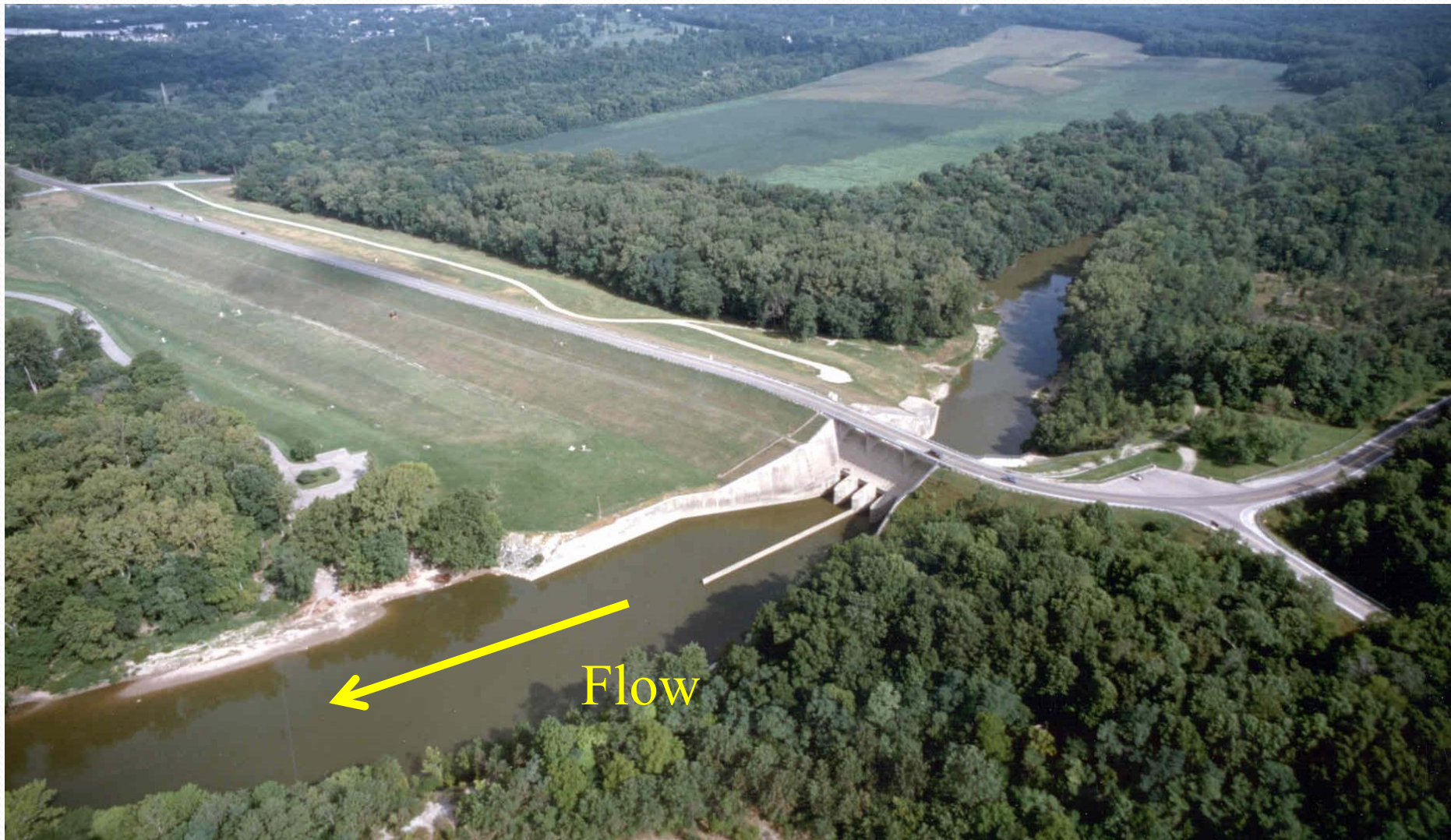
MCD

- 5 flow-through dams
- 55 Miles of levees
- Protection to all cities from Piqua to Hamilton
- Floodplain preservation
 - 400,000 trees
 - Preserves behind each dam



Taylorville Dam

2,980 ft. long
77 ft. high



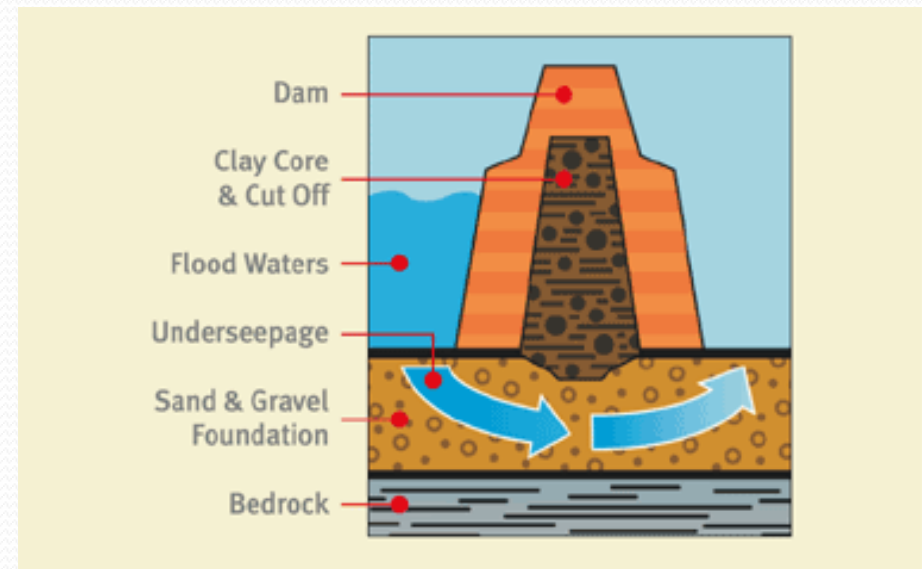
Flood Free Communities

- Dams have held back water >1816 times
- Total capacity = 274,000,000,000 gallons

| Dam | Year of largest high water event | Capacity used |
|-------------|----------------------------------|---------------|
| Germantown | 1959 | 31.8% |
| Englewood | 2005 | 21.6% |
| Lockington | 2003 | 17.2% |
| Taylorville | 1959 | 11.6% |
| Huffman | 1959 | 15.0% |

Dam Safety

- Multi-year capital improvement project
- To ensure the ongoing safety and integrity
- Series of repairs and modifications to the dams
- MCD's largest investment since the original construction



And not when it is dirty...



Wastewater Collaboration



Groundwater Collaboration

- Subdistrict created in 1997
- Funded by assessment
- Guided by community input
- Monitor water conditions
- Support local efforts



Wellfield development

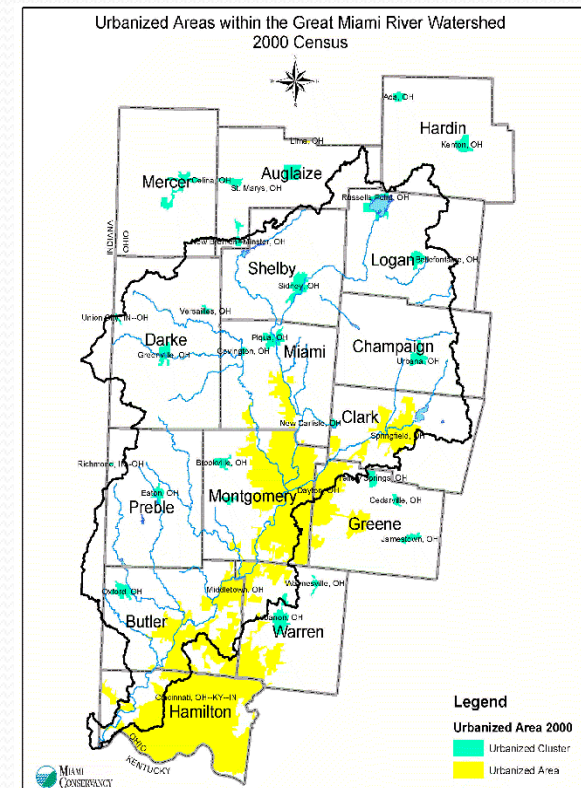


Stormwater Collaboration



Is the water healthy now?

- Of our monitored streams:
 - 613 miles (58.8%) meet state standards
 - 206 miles (19.8%) partially meet
 - 223 miles (21.4%) do not meet



Nutrient Collaboration

- Water Quality Credit Trading
- Improve and protect the surface water that replenishes Dayton's upstream drinking water sources
- Improve and protect water quality in downtown Dayton



Or there's nothing to do...



Recreation Collaboration

- MCD land used for
 - Parks
 - Bike Trails
 - Walking Paths
 - River Access
 - Low Dams
 - Festivals



Today's River Corridor

- 99 miles of Great Miami River
- 500,000+ residents in 14 river cities
- 150,000 college students
- Close to major metro areas
- Excellent water quality
- More than 75 parks



Riverfront development



New Riverfront Parks



Unless no one knows about it!



River Corridor Collaboration

- Shared vision for the region
- Needs:
 - Marketing and Branding
 - Improved wayfinding
 - Close trail gaps
 - Improve some parks
 - Improve river access



Where else can you find?

- Cities protected from flooding
- Community passion for the river
- Clean, plentiful water
- Connected ribbons of green
- Collaboration



What's next?

- Maintenance of the Dams and Levees
- Unpredictable weather patterns
- New regulations
- Increased water demand (outside the watershed?)
- Threats from injection well installation
- ???



MICD

MIAMI CONSERVANCY DISTRICT

100 *Years*
OF WATER RESOURCES MANAGEMENT



MCD video

MCD's vision

Thriving communities, a healthy watershed, and a higher quality of life, sustained by well-managed water resources throughout the watershed.

