

# River & Flood Management

David Zokaites

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# Riverfront & Oceanfront Development

- The view is lovely
- Prone to flooding
- Financially risky, risk is government subsidized
- Mostly a problem for the wealthy
- Eliminates valuable natural habitat

# Historical Situation

- Lowlands, swampy areas
- Not very desirable
- Low income housing
- Flood risk for the poor

# National Flood Insurance Act

- Enacted 1968
- Subsidizes flood insurance
- Benefits developers, builders, owners, insurance companies, re-builders
- Repetitive loss properties should be razed
- Should not cover 2<sup>nd</sup> homes
- Helps communities recover from floods
- Encourages risky construction
- Should be phased out

# Global Warming

- Increases severe weather
- Floods become more likely
- 25 500-year floods 2010-2017 in USA
- <https://www.aerisweather.com/blog/2018/07/24/flooding-frequency-increasing/>
- We must reverse global warming via greener energy, carbon capture, and solar radiation management

# Flood Frequency

- “Since 1881, the City of Sioux Falls has experienced flooding from the Big Sioux River 19 times and from Skunk Creek 8 times. Updated December 2019.”
- <https://www.siouxfalls.org/FLOODPLAIN>
- An average of one flood every 5.1 years

# Skunk Creek Flooding

- Tributaries flooding 2.5 times more than a century ago
- <https://www.aerisweather.com/blog/2018/07/24/flooding-frequency-increasing/>
- New reservoir would reduce Sioux Falls flooding
- Is a 4 mile diversion canal practical?
- Conduct preliminary cost benefit analysis
- Spillways should be fish and canoe navigable.  
Incorporate side channels for various water levels.

# Big Sioux Diversion Canal

- Prepare for more severe flooding
- Diverted river should be widened, made more natural
- Replace dangerous spillway with whitewater park, tourist attraction
- Enable aquatic animal migration
- Incorporate ice park for winter climbing, climbing wall for summer

# Lowhead Dams

- Short submerged dams
- Hydraulic roller, drowning machine
- One in Falls Park, another by the spillway
- Replace them with rock ramps
- Better for people, environment

# City Buying Flooded Homes

- Helps correct past zoning mistakes
- Floodplain moved after city extended levees
- Will expand Tomar Park
- Buy at after-flood real estate prices
- Great idea

# Enjoy Our City

