

# Infrastructure

The U.S. Army Corps of Engineers and Monumental Design



Todd Shallat, Ph.D.

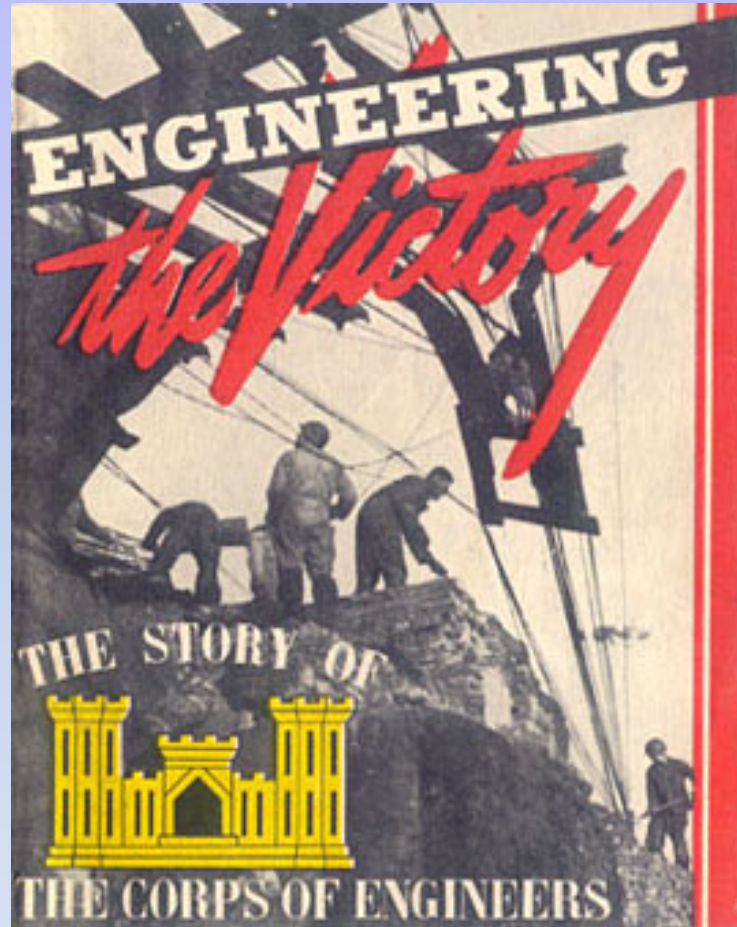
Center for Idaho History and Politics

Boise State University

# Thinking big . . .



# The U.S. Army Corps of Engineers



The Corps thinks big. Really big.

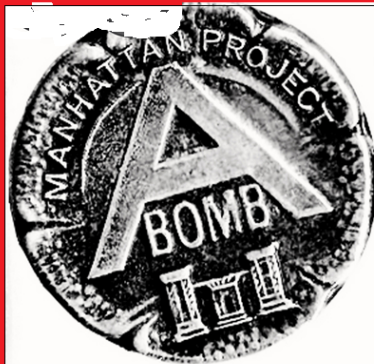


# Big

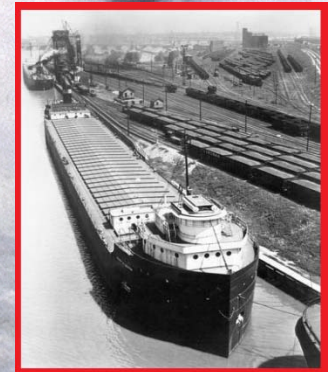




# Bonneville Dam, the Manhattan Project, Boston Harbor, the St. Lawrence Seaway



THE MANHATTAN PROJECT





# Much praised. Much maligned

**“Getting a man off heroine was easy compared with getting Congress off the kind of pork that the Corps administers.”**

Supreme Court Justice William O. Douglas

**“The Engineer has become our king. Where a river silts up—dredge it. When it runs crooked—straighten it. Where it runs straight—deepen it. Where it runs at all—stop it. And where it doesn’t run—build a canal.”**

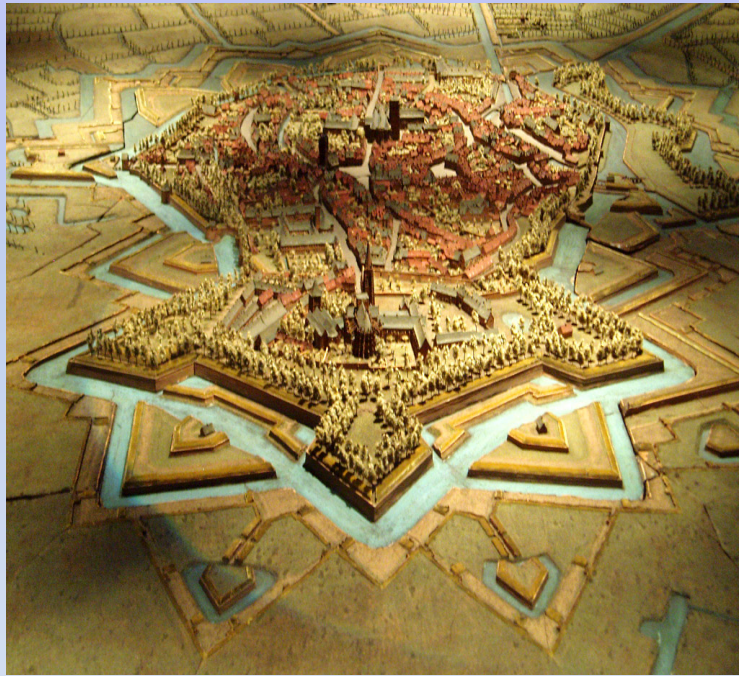
George Laycock, *The Diligent Destroyer*, 1970



**Army engineers  
think big in ways  
that challenge  
And sometimes  
defy civil  
engineering  
tradition.**



# 18<sup>th</sup> Century Britain and France

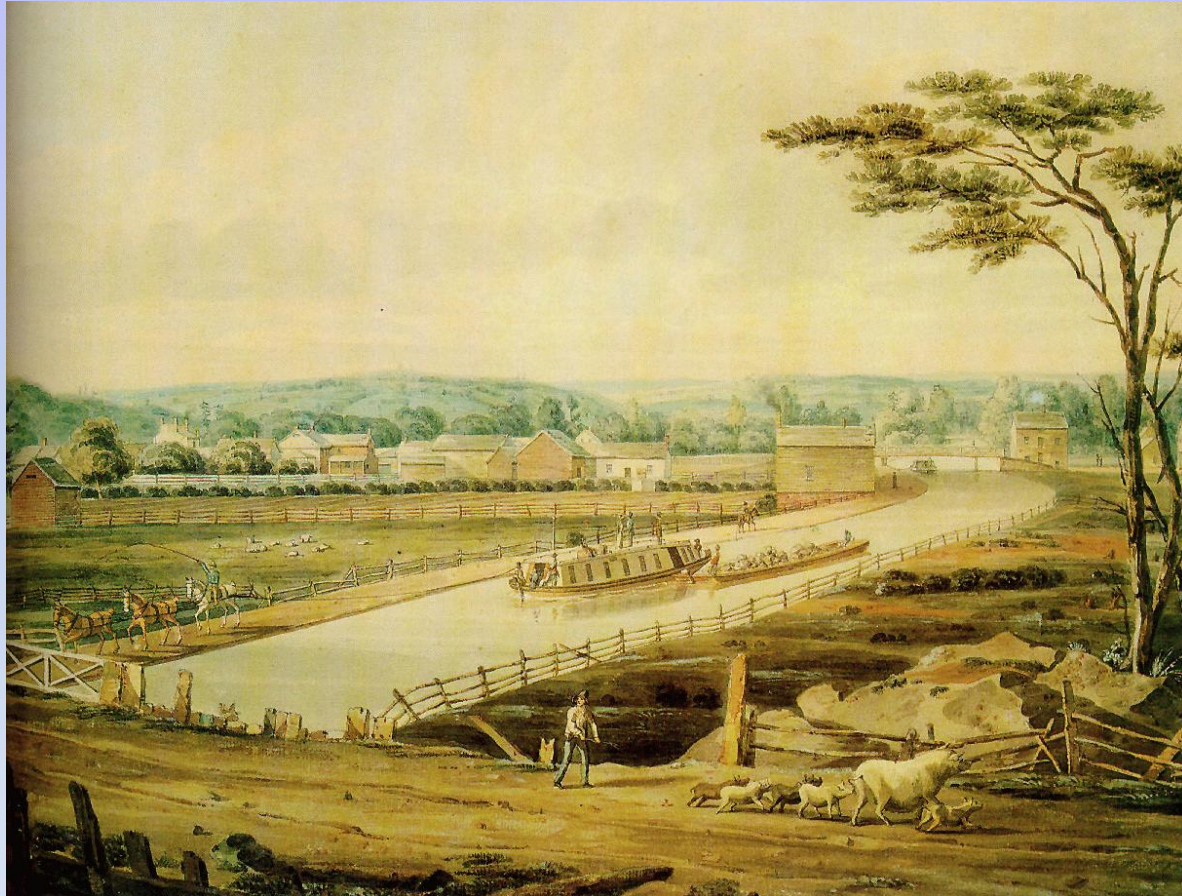




# French star-shaped bastion forts



# British civil engineering tradition



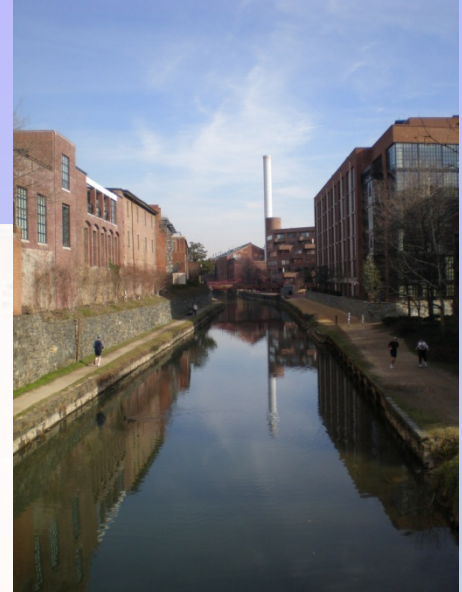
**Geddes & Robert's Erie Canal 1825**



# West Point: the French scientific tradition



# Chesapeake and Ohio Canal

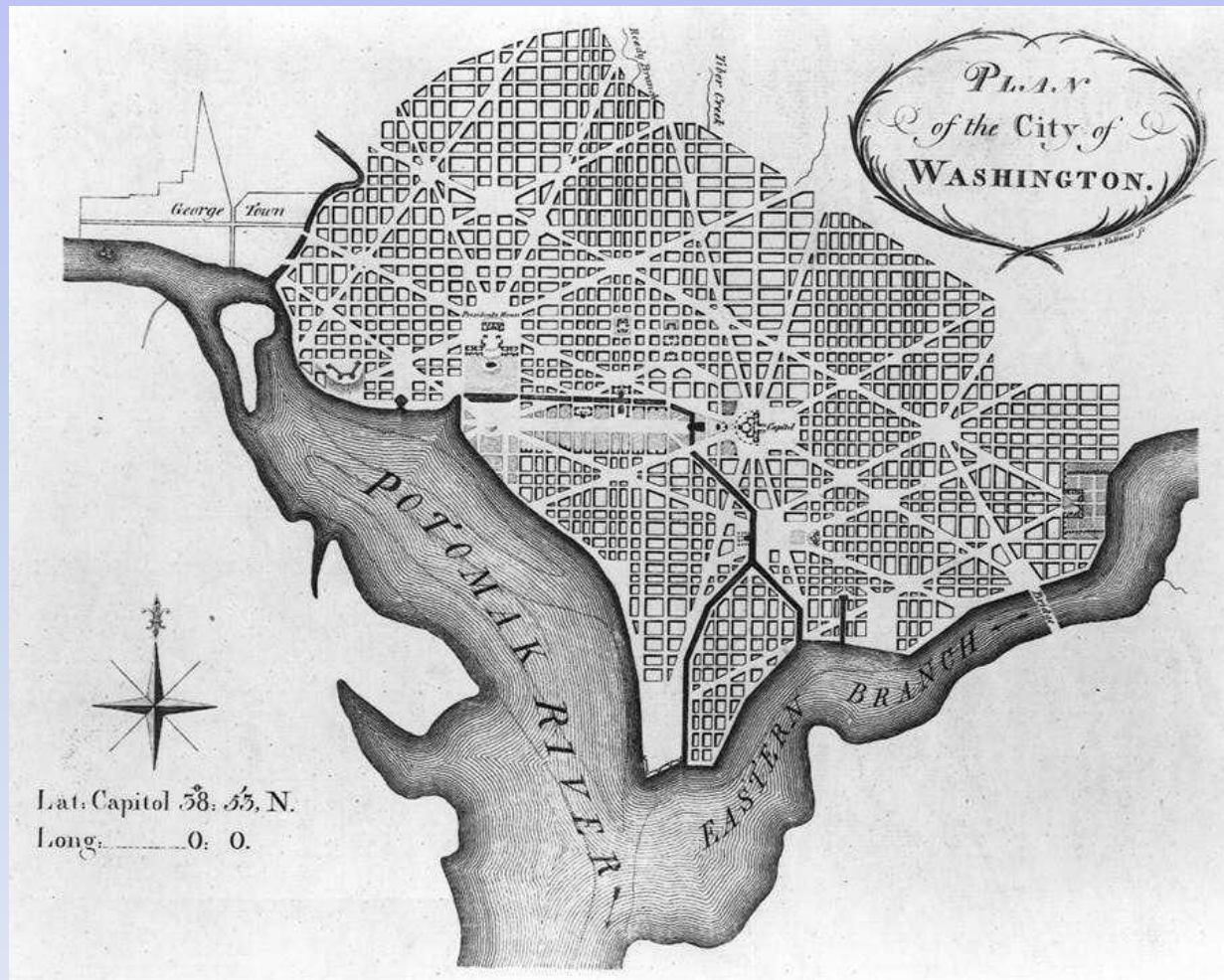




# Fort Monroe

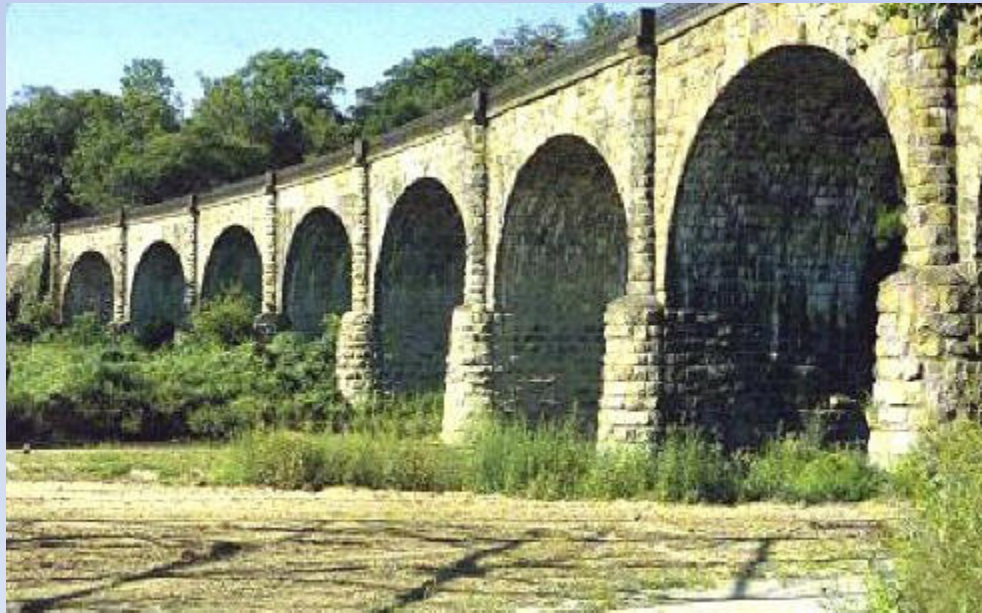
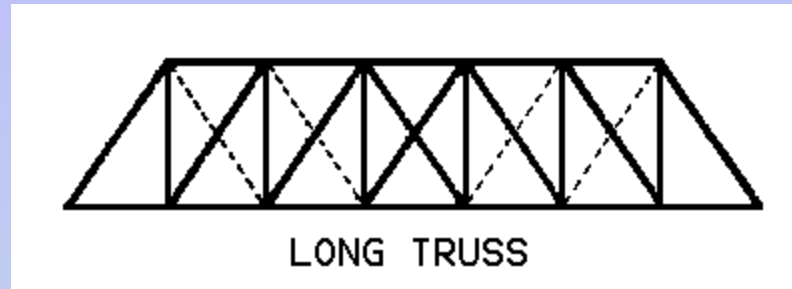


# Washington, D.C.





# Two bridges



Corps missions:  
navigation, flood control, environment



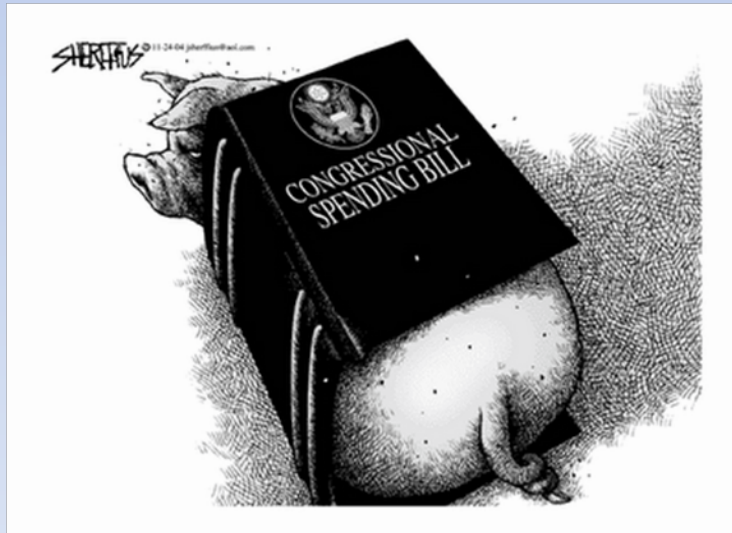


# River & harbors mission



**Corps Snag Boat, 1870s**

## Corps answers to Congress







**Ohio River aquatic staircase**



# Flood control mission





# Flood Control Act of 1917



# Great Flood of 1927



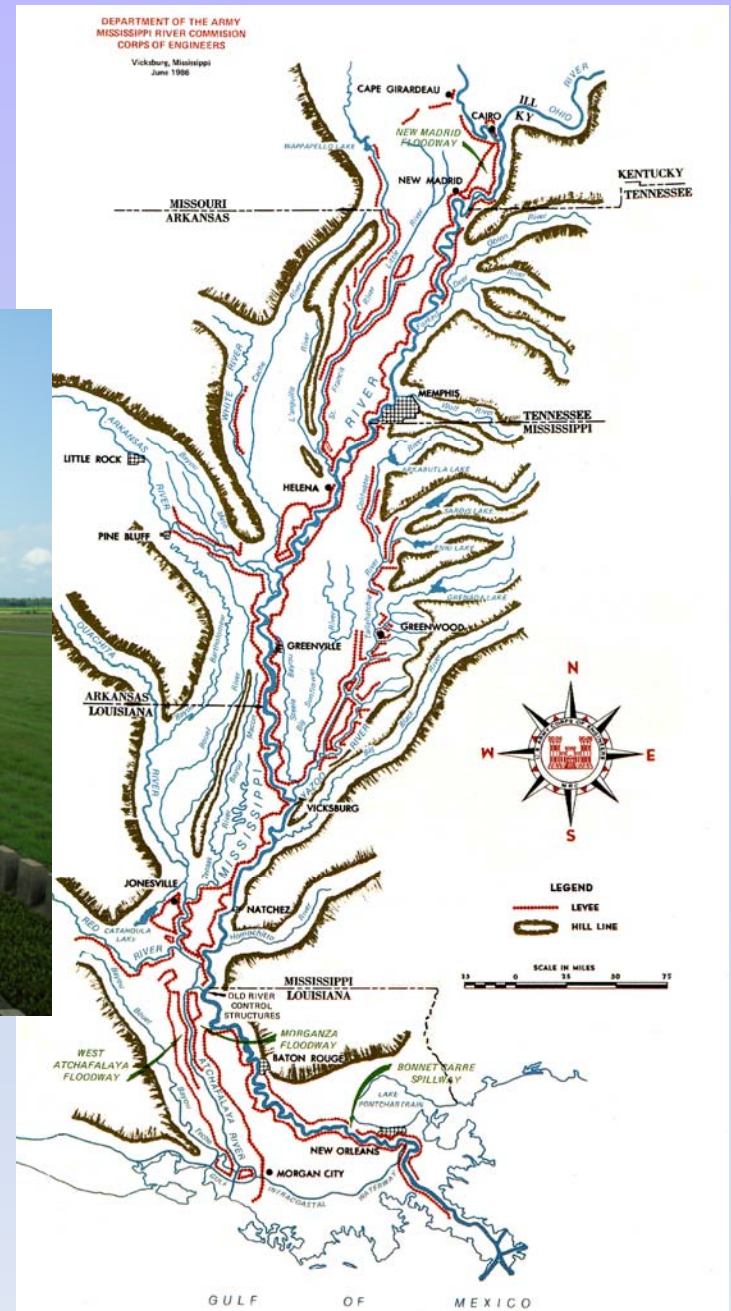


# MR&T

## Mississippi River & Tributary Project



**Bonnie Carre Spillway**

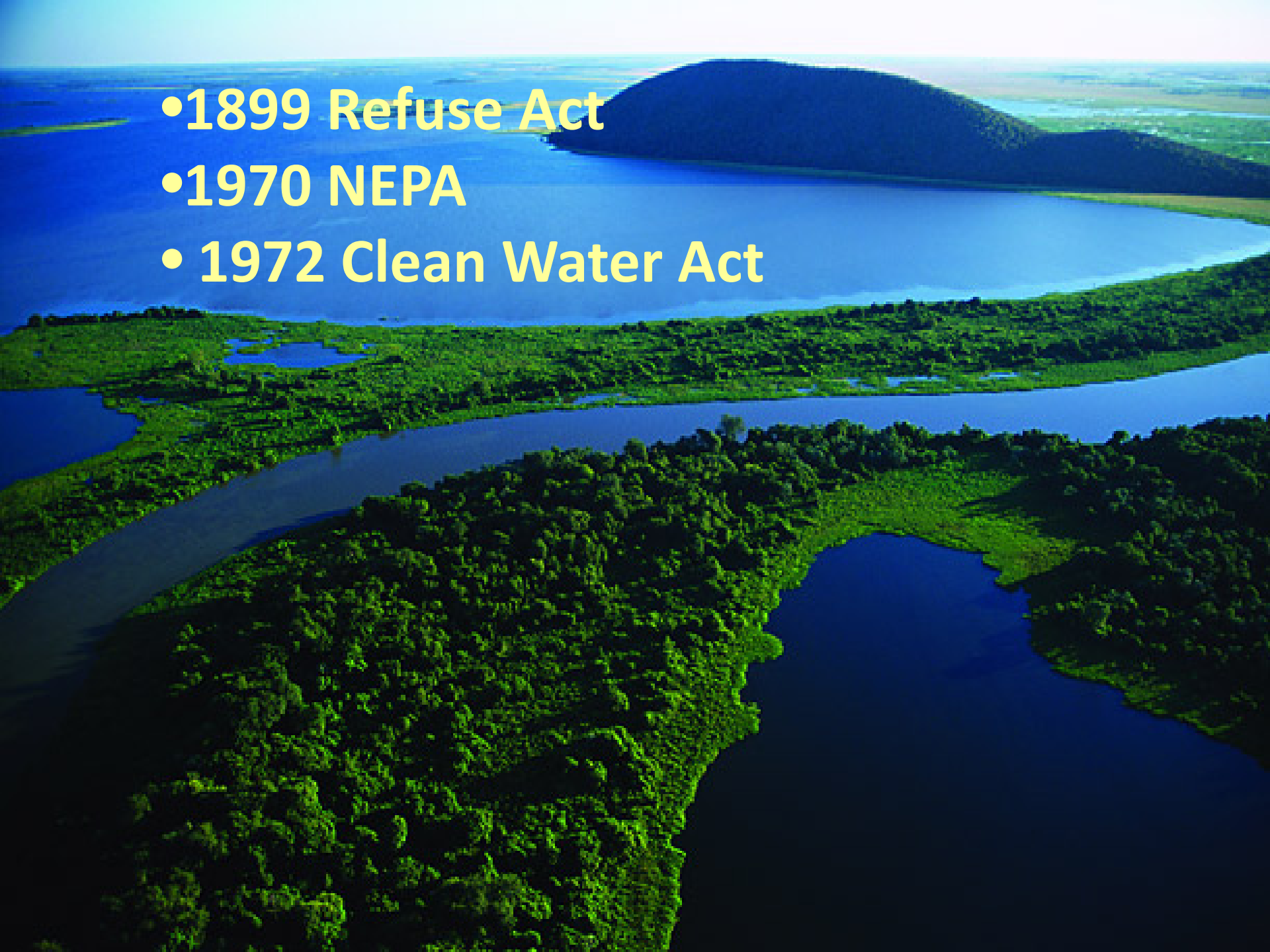


# Environmental Mission



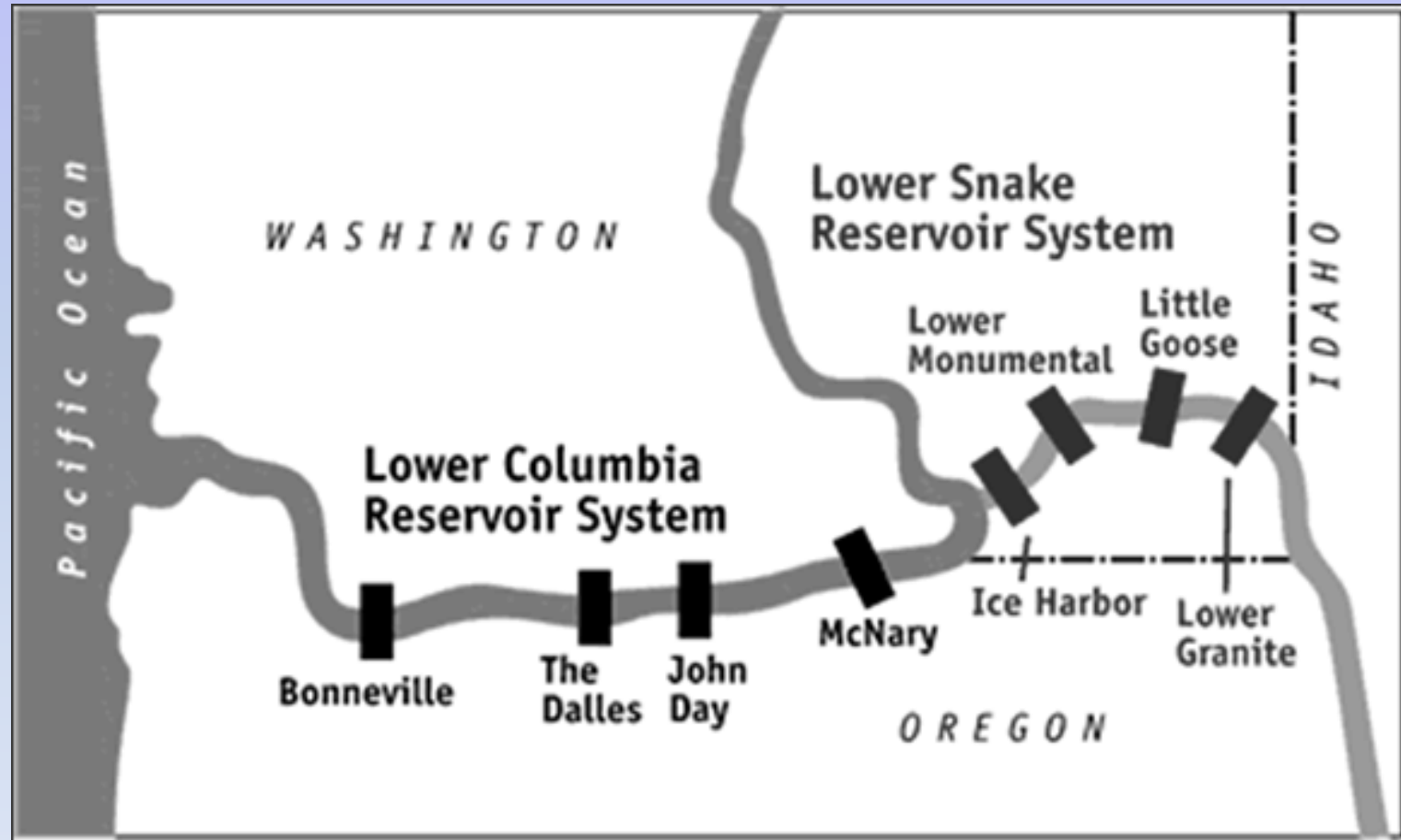


- 1899 Refuse Act
- 1970 NEPA
- 1972 Clean Water Act



# Salmon Recovery

## Should the Corps breach its dams?









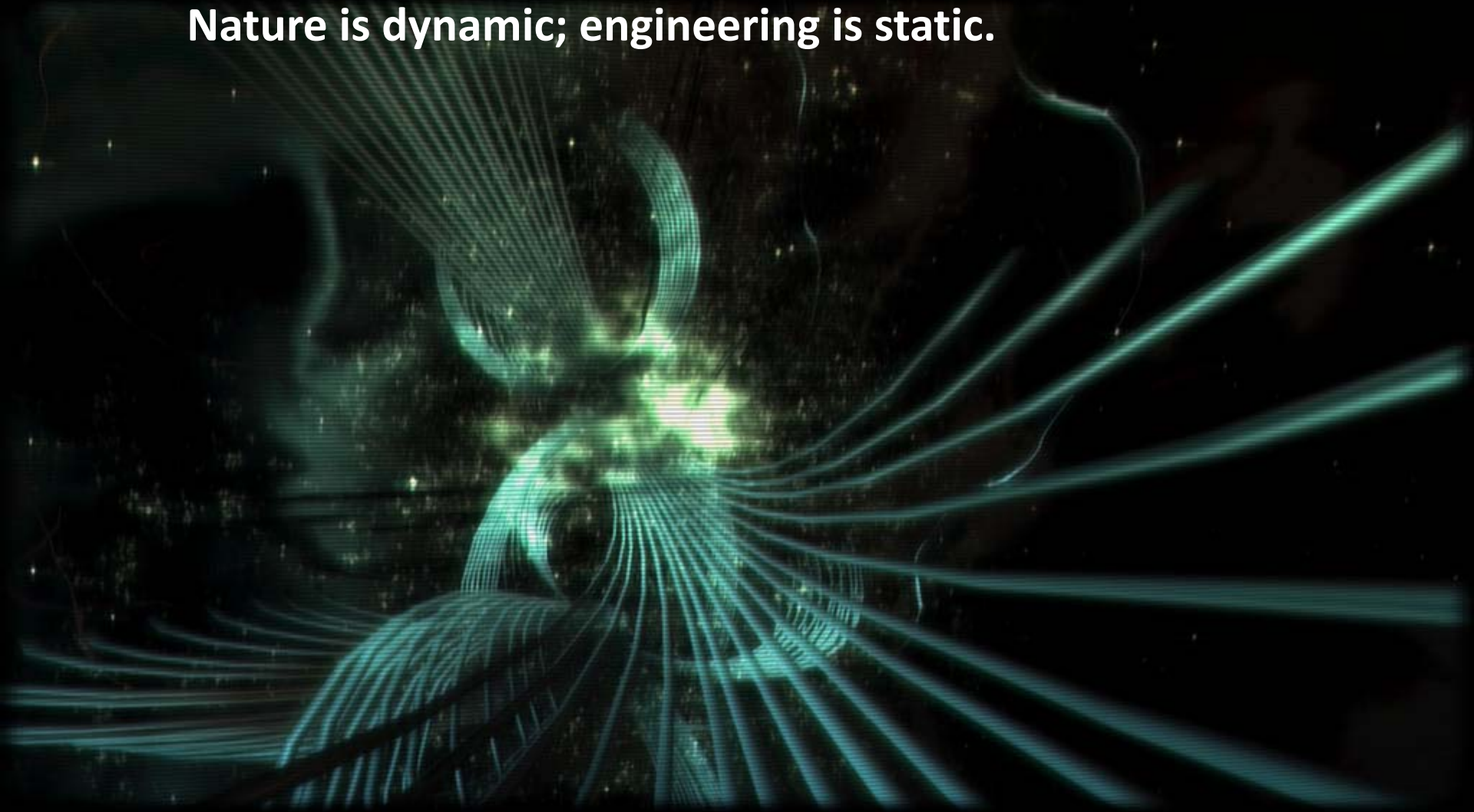


**Losing Louisiana**



# Chaos Theory v. Ecosystem Theory

Nature is dynamic; engineering is static.



# Conclusions

Corps at odds: it thinks big in ways that challenge civil engineering tradition.

Corps de facto planning agency for a nation without a central planning authority.

Corps serves Congress, hence decentralized, defiant.

Corps remains military; it copes.

