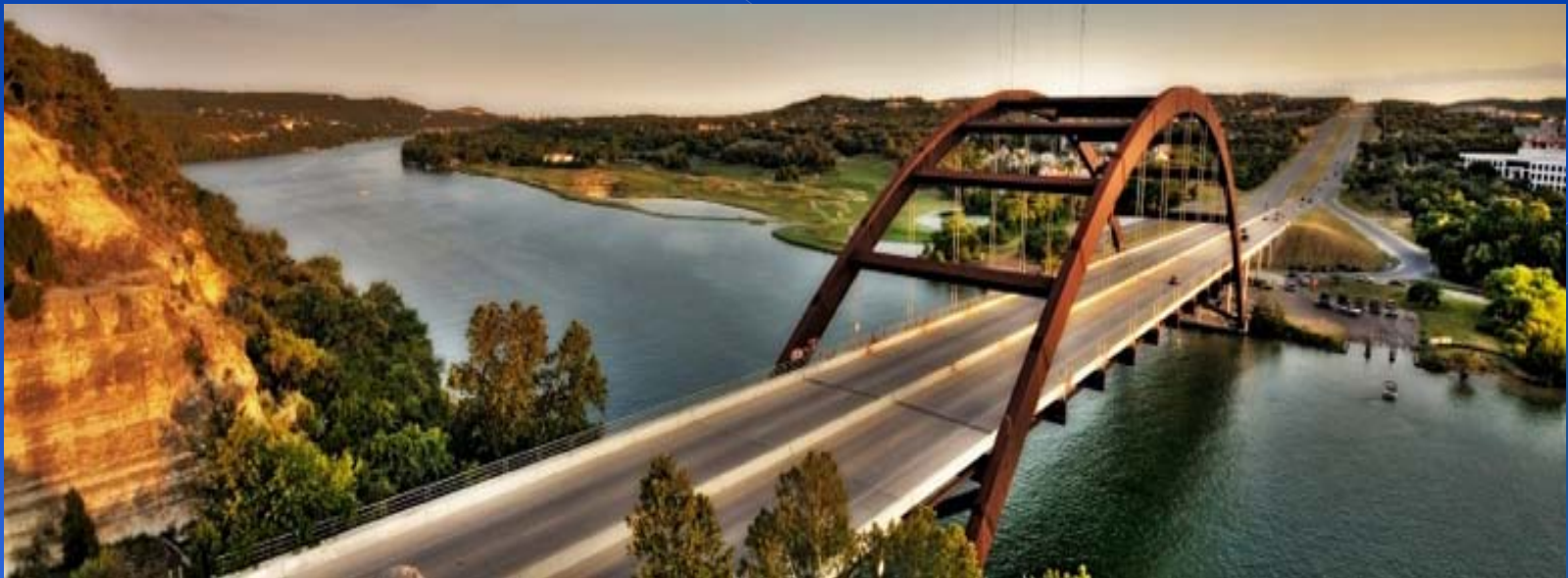


REBUILDING AMERICA APA National Infrastructure Investment Task Force



Mission

- ◉ Evaluate current conditions and challenges affecting the nation's vital infrastructure.
- ◉ Develop a new vision for the nation's infrastructure.
- ◉ Identify specific recommendations for changes in public policy, funding, and planning practice.

TOPICS

Transportation

Energy

Green Infrastructure

Water/Wastewater

Telecommunications

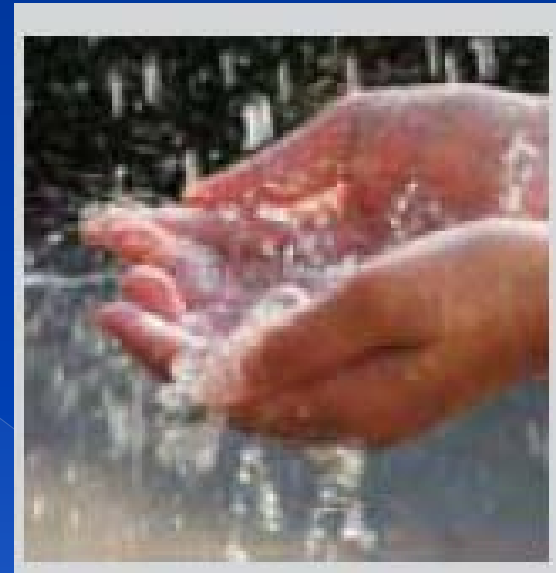
Public Facilities

Water Wastewater Storm Water



ISSUES & TRENDS

- ◉ Aging Infrastructure
- ◉ New water quality standards
- ◉ Capacity
- ◉ Climate Change – drought



ISSUES & TRENDS

- ◉ Stormwater run-off
- ◉ Nutrients –
phosphorous –
chemicals
- ◉ Multiple jurisdictions



ISSUES & TRENDS

- ◉ Energy Cost
- ◉ Costly upgrades
- ◉ Financing
- ◉ Coordinate with land use planning



WELCOME
TO
MINNESOTA

LAND OF 10,000
SCUM-COVERED,
FERTILIZER-POLLUTED,
ALGAE-CHOKED
FISHLESS BOGS

We decided A
New sign WAS
CHEAPER THAN
ACTUALLY DOING
SOMETHING
ABOUT IT.



SUSTAINABLE WATER MANAGEMENT

- ◉ Low environmental impact
- ◉ Minimize energy inputs
- ◉ Minimize water inputs
- ◉ Minimize waste outputs
- ◉ Minimize water pollution
- ◉ Integration

Recommendations

- Green infrastructure and water resources should constitute one system.
- Promote decentralized storm water solutions such as green roofs, pervious pavements, rainwater harvesting



Recommendations

- Promote water recycling (Grey water for landscaping....) – Closed loop systems
- Incentivize water conservation (LEED ranking, rate structures, water footprint)
- Innovative Solutions (No one size fit-all approach)

Recommendations

○ High Tech solutions

Mapping of Water Resources And Weather Forecasting

- Remote sensing from satellites
- In-situ terrestrial sensing systems
- Geographical Information Systems
- Sensor networks and Internet

Asset Management For The Water Distribution Network

- Buried asset identification and electronic tagging
- Smart pipes
- Just in time repairs / Real time risk assessment

Setting up Early Warning Systems and Meeting Water Demand In Cities Of The Future

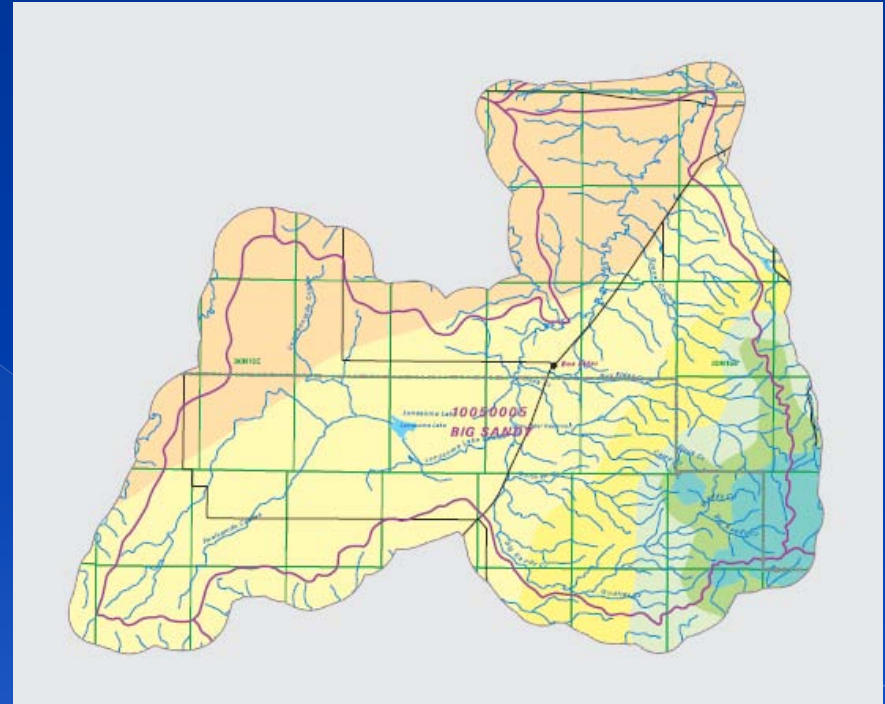
- Rain/Storm water harvesting
- Flood management
- Managed aquifer recharge
- Smart metering
- Process Knowledge Systems

Just In Time Irrigation In Agriculture And Landscaping

- Geographical Information Systems
- Sensor networks and Internet

Recommendations

- Promote nutrient and energy recovery.
- Adaptation plans for extreme weather events
- Regional water – wastewater -stormwater plans. (Watershed analysis)



More Info

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<http://www.planning.org/policy/infrastructure/>