



ND ENVIROTHON



PRESENTATION SUMMARY

01 Water Resource Management

02 Administrative structure

03 Ground & Surface

04 Project & Policy Impacts



WATER RESOURCE MANAGEMENT

WATER RESOURCE MANAGEMENT



United States Army Corps of Engineers

- Regulatory Responsibilities
- Clean Water Act



Office of the State Engineer/State Water Commission

- Water Management & Appropriation
- Water Distribution Development



Water Resource Districts

- Local Water Resource Management



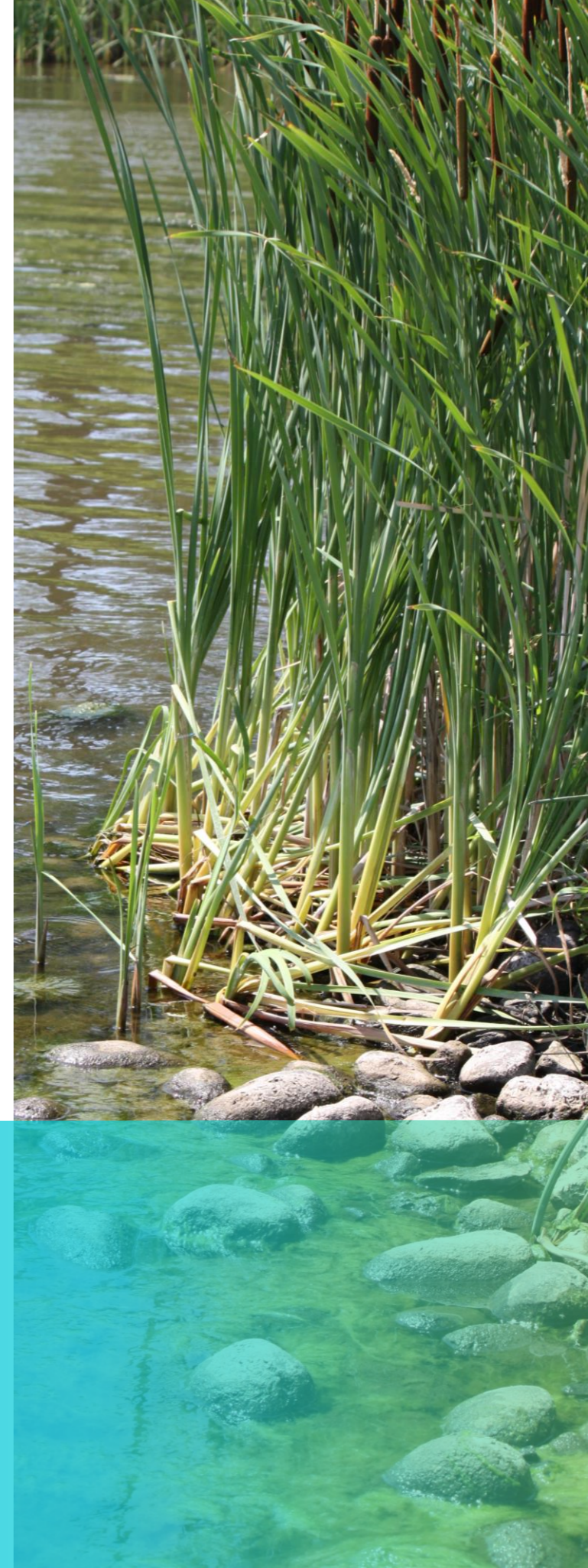
Rural Water Systems

- Local Potable Water Distribution Management

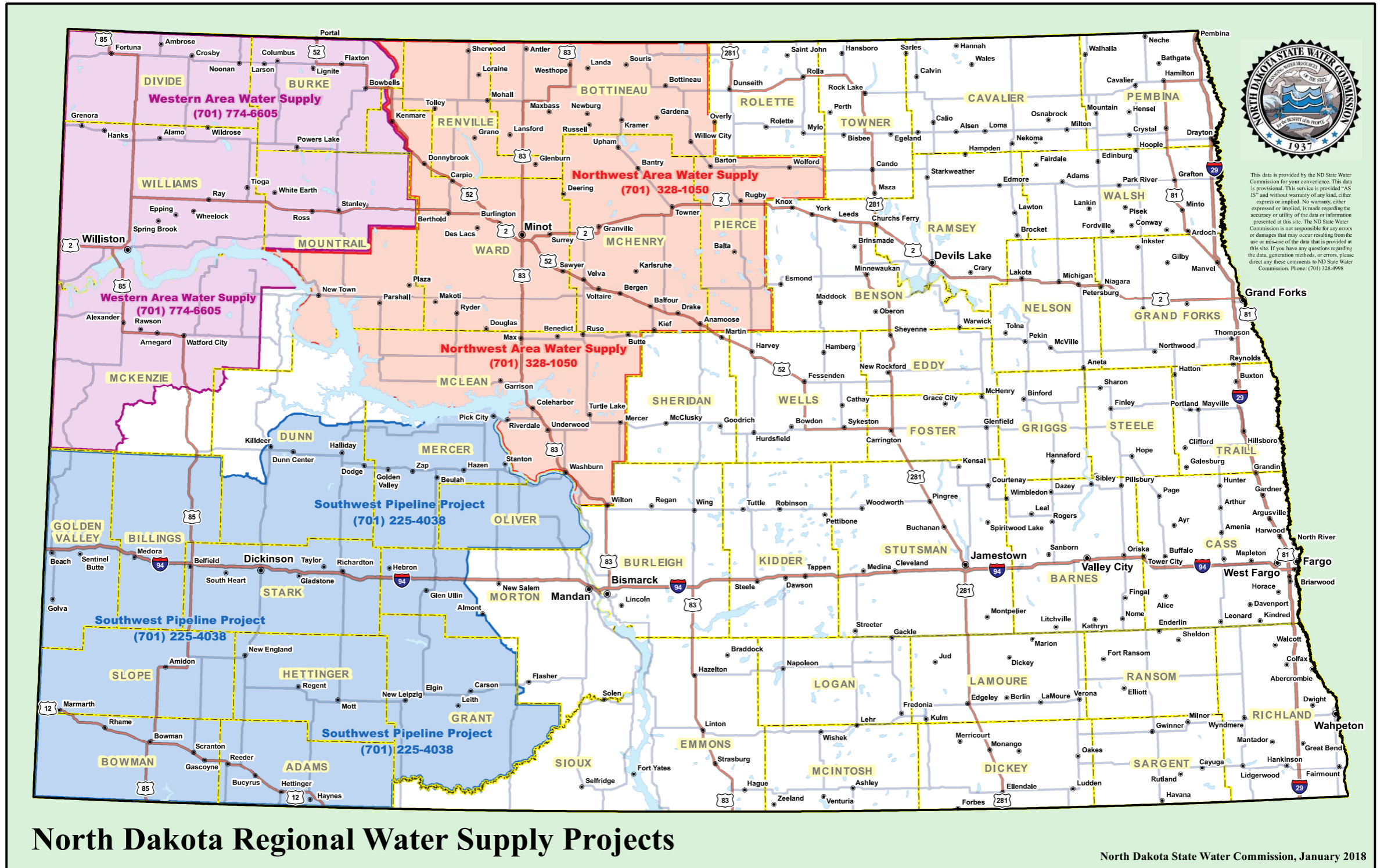
WATER RESOURCE MANAGEMENT

Water Resource Districts

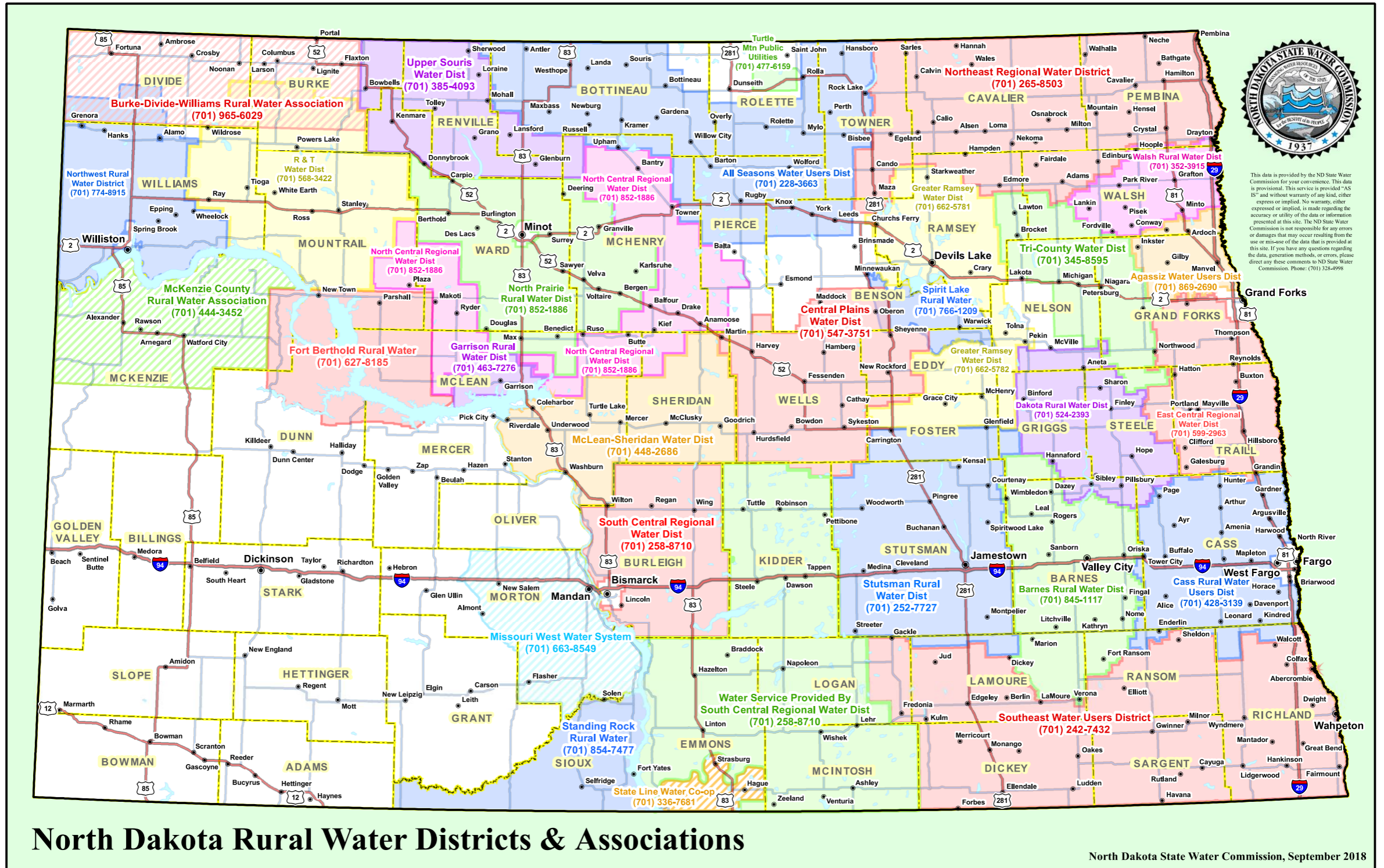
Achieve ND Legislative Intent to Manage, Conserve, Protect, Develop, & Control Water Resources to Protect Lives, Health, Property, & Rights of All People.



WATER RESOURCE MANAGEMENT



WATER RESOURCE MANAGEMENT



ADMINISTRATIVE STRUCTURE



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Riparian VS. Prior Appropriation Water Right Doctrines

Water Appropriation

- 368,000 Acre-Feet Used Per Year
 - 120 Billion Gallons
- Bakken Impact
 - 20-30 Million Gallons of Water Per Day for Next 20-30 Years



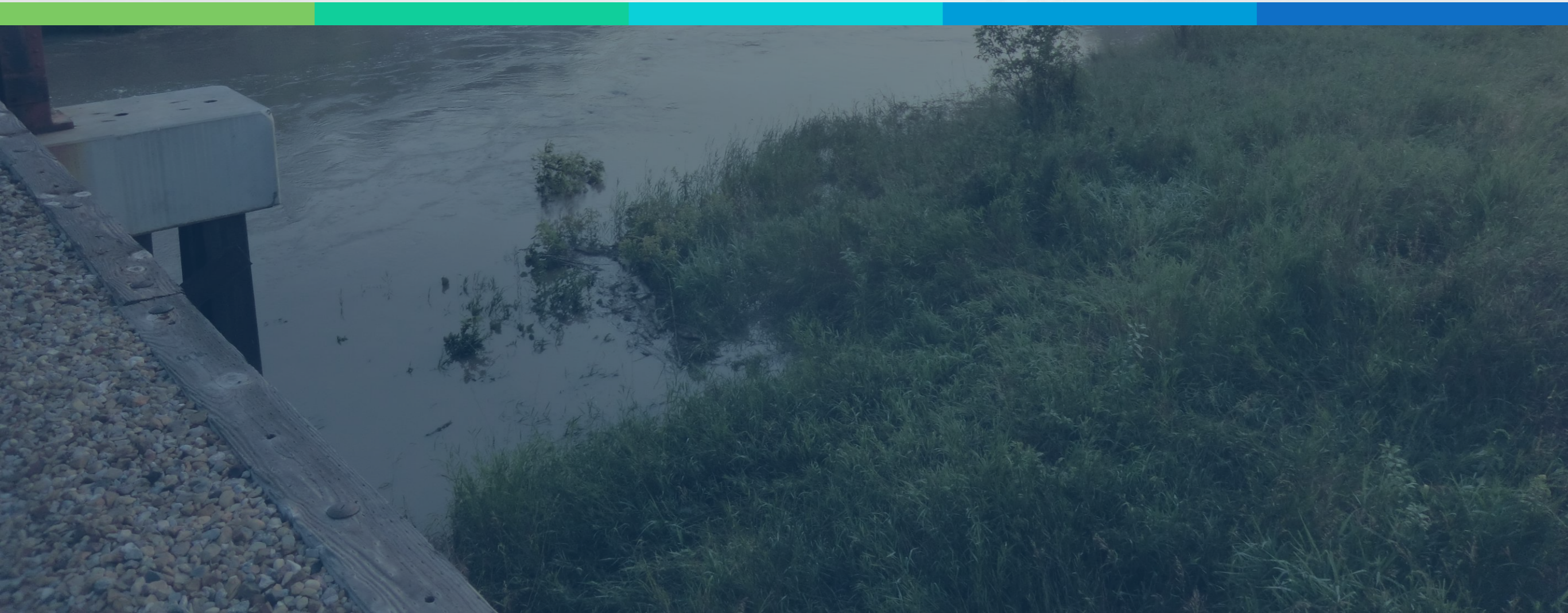
ADMINISTRATIVE STRUCTURE

Rural Water Systems Administer & Distribute Appropriated Waters

Connection & Membership

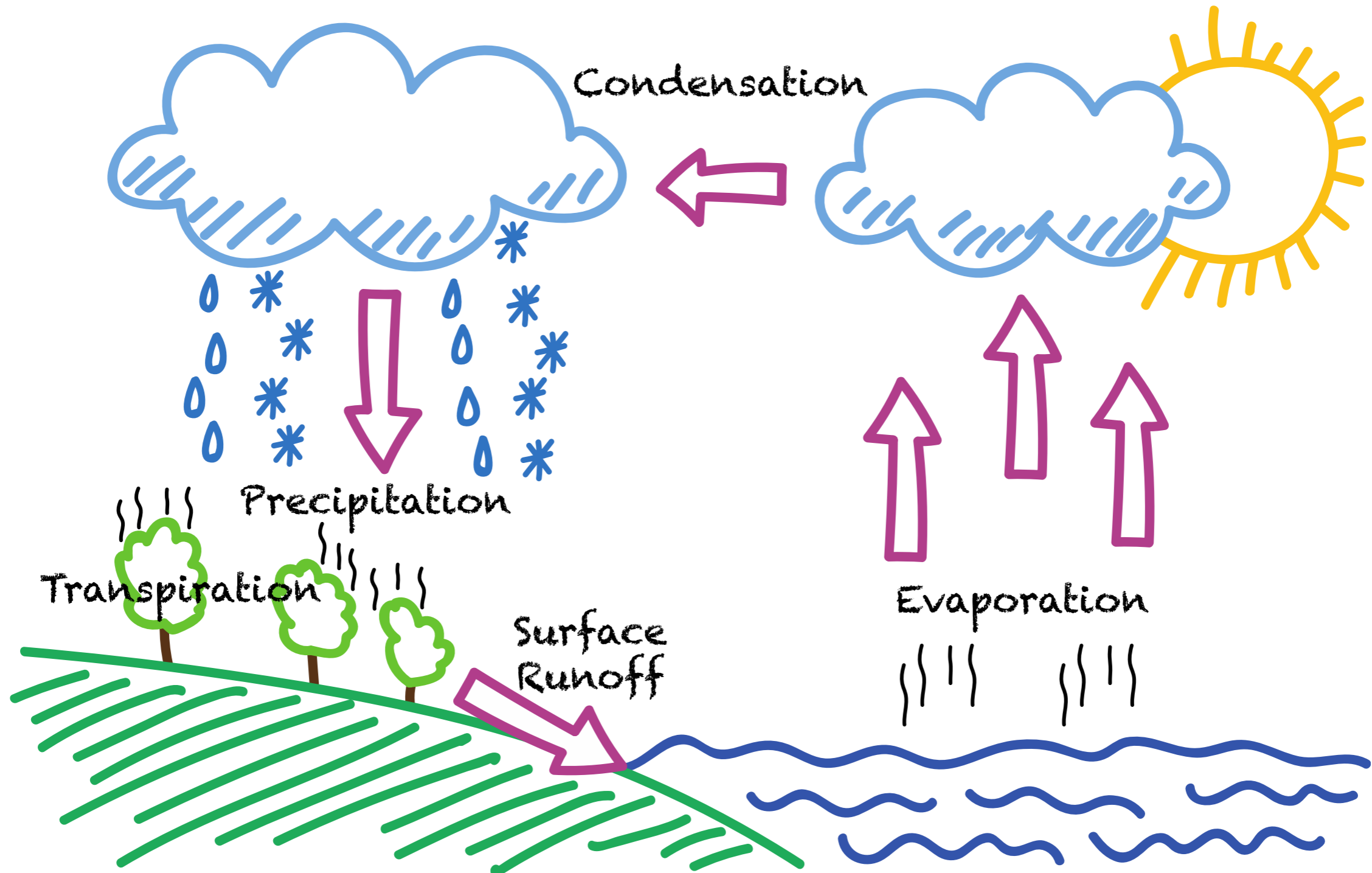


GROUND & SURFACE WATER



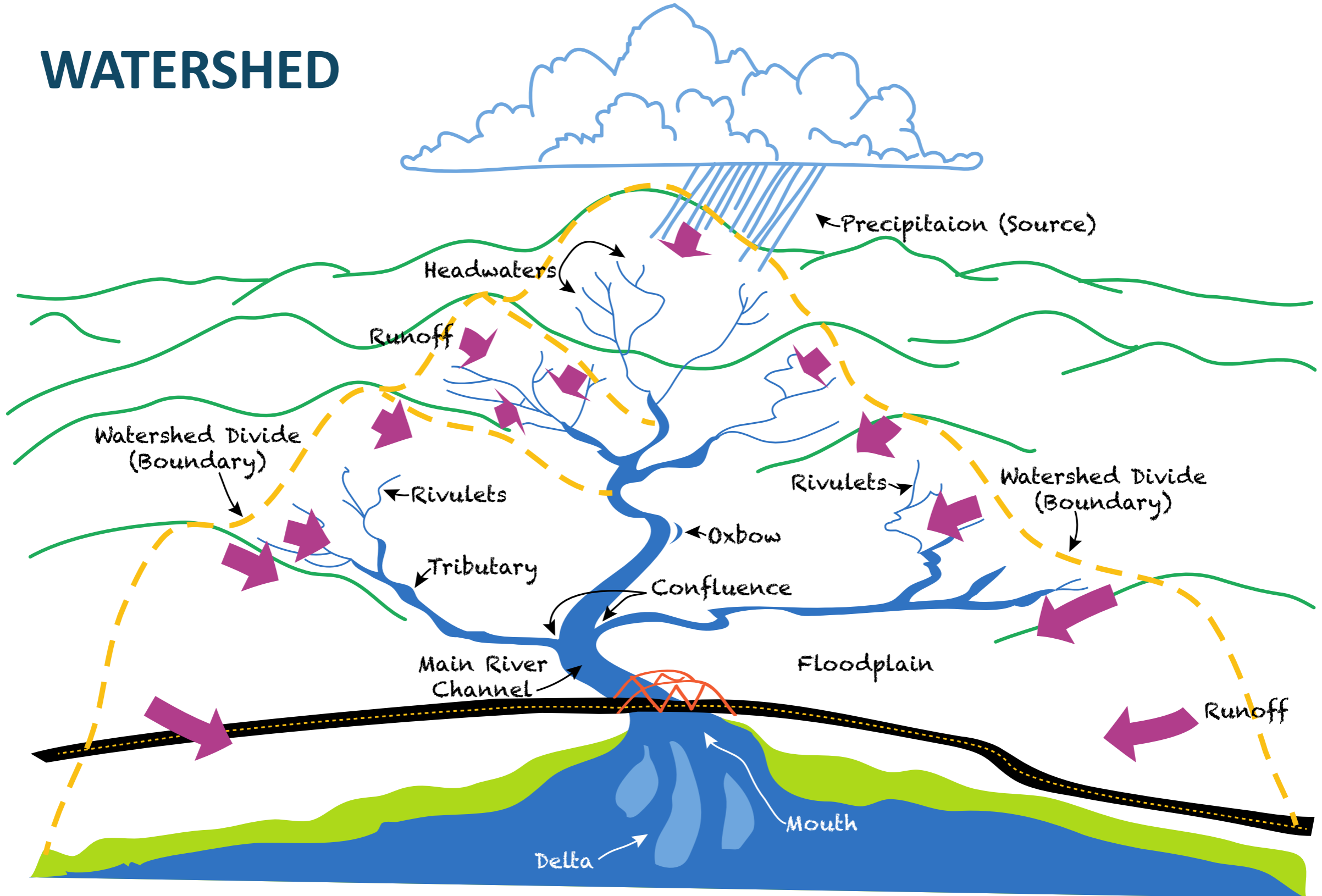
GROUND & SURFACE WATER

HYDROLOGIC CYCLE



GROUND & SURFACE WATER

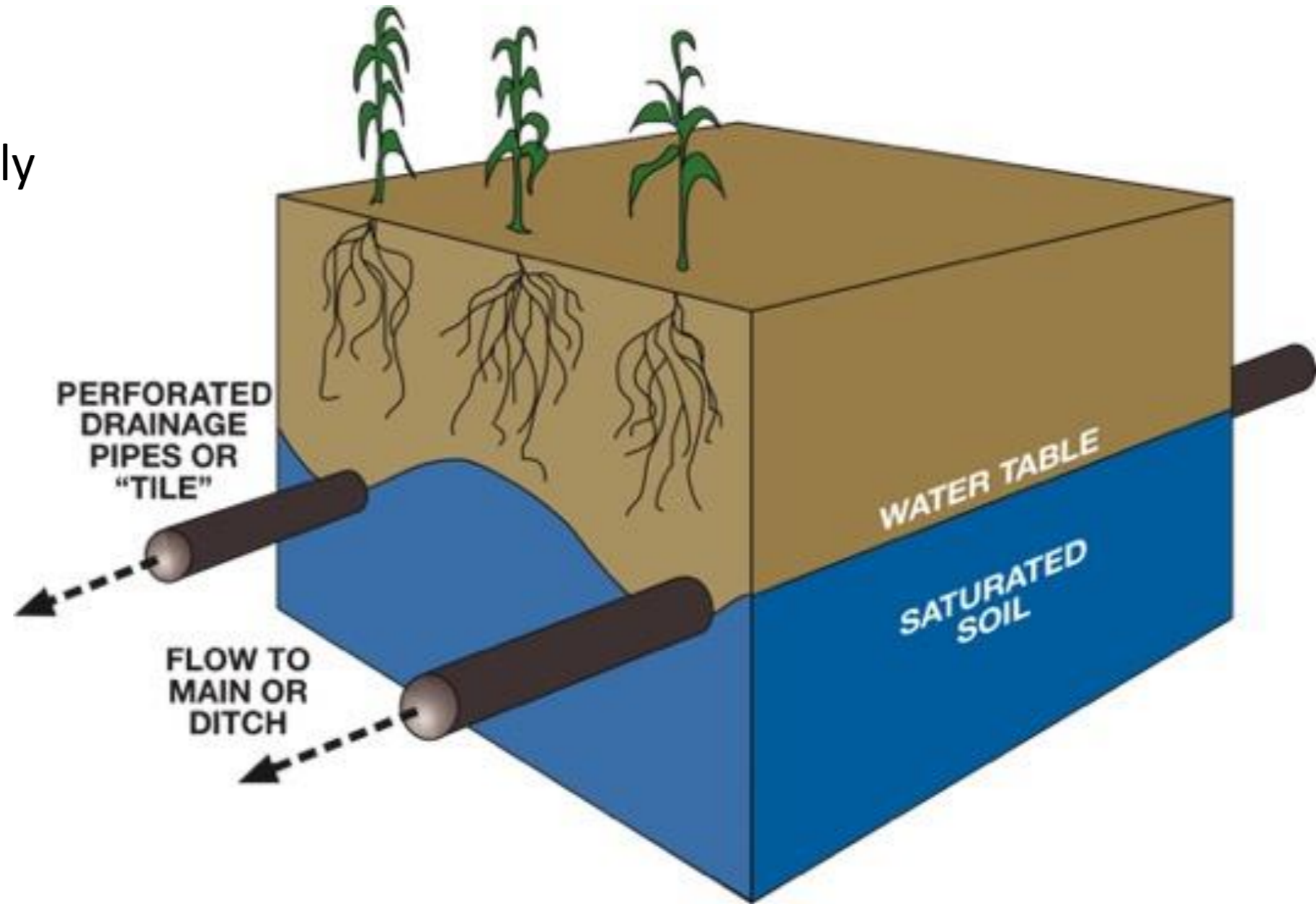
WATERSHED



GROUND WATER MANAGEMENT

Drain Tile

Managed Only Locally



SURFACE WATER MANAGEMENT

Point & Non-Point Sources

ANY Pollution Creates
Problems (algal blooms)
For Future Water Use



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From section 502(14) of Clean Water Act: The term "point source" means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged. This term does not include agricultural storm water discharges and return flows from irrigated agriculture.

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PROJECT & POLICY IMPACTS

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Garrison Dam

- Flood Control & Water Supply
- 600 Square Mile Reservoir



Dakota Access Pipeline

- Moves ND Bakken Crude to Market
- 95 Feet Below Lake Oahe



Fargo Flood Control

- \$2.75 Billion to Construct
- Provides Flood Protection For 1 Out of Every 3 North Dakotans

PROJECT & POLICY IMPACTS



2011 Garrison Dam Release

2011 City Of Minot Flood

PROJECT & POLICY IMPACTS



North Dakota Section of the American Society of Civil Engineers
INFRASTRUCTUREREPORTCARD.ORG/NORTH-DAKOTA



The North Dakota Drinking Water State Revolving Fund(DWSRF) Intended Use Plan indicated that in 2018, there were approximately \$594 million worth of DWSRF – eligible infrastructure projects state-wide. Approximately \$125 million will be available from the 2017-2019 biennium for water projects from the State Water Commission, while the DWSRF is funding approximately \$46 million in projects.



Seventy-three percent of the High Hazard dams in the National Inventory of Dams have a condition assessment rating and half of those are considered deficient and do not meet accepted safety standards in some way.





THANK YOU!