

Mandan, Hidatsa and Arikara Nation Tribal Energy Development

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MHA Nation

Bakken Background

- Fort Berthold Indian Reservation: 980,000 acres. 530,000 acres are held in Trust
- 552,000 acres within the producing region: 122K Tribal, 261K Allottee, 169K Fee
- 381 wells (5/15) with Tribal Mineral Interest, and 18% average Tribal royalty rate.
- Number of Drilling Rigs Accessing Minerals on FBIR: 13 (including fee and trust land)
- Currently 300,000+ bpd/FBIR (5/15).
- Equates to 15% of N.D. production, and 2% of U.S. daily oil production.

Oil Rig at FBIR

North Segment

Shell Creek



Tribal Energy Resources

- Current Tribal Natural Resources
 - Oil
 - Rig Count 2014 -26 rigs – 220,000 bbl
 - 2015 – 13 rigs 8 trust -180,000 bbl
 - Trust land (allottee and Tribal)
 - Trust property 66% / Fee 33%
 - ND reached 2 Billion in royalties
 - Natural Gas
 - Flaring has declined from 50% to 20% over the last 24 months
 - Water
 - Industrial Use
 - Infrastructure

Tribal Development

- Missouri River Resources (oil, gas, pipelines)
 - Covering Upstream, Midstream, and Downstream
 - Tribally owned and operated
- Thunder Butte Refinery
 - Tribally owned and operated
- Section 17 Water Development
 - Tribally owned and operated

Missouri River Resources – Exploration and Production (Current)

- Non-operated Interests
 - Working interest in 40 non-operated wells.
 - Working interest in above wells ranges from <1% to 25%.
 - Approximately \$2 million in royalties to Tribe since 2013.
 - \$7.3 million in working interest to Missouri River Resources.
 - **Amount withheld from Tribe due to BLM and BIA delays in processing leases on Little Missouri River: \$18 Million in working interest to MRR and nearly \$5 in royalties to Tribe.**

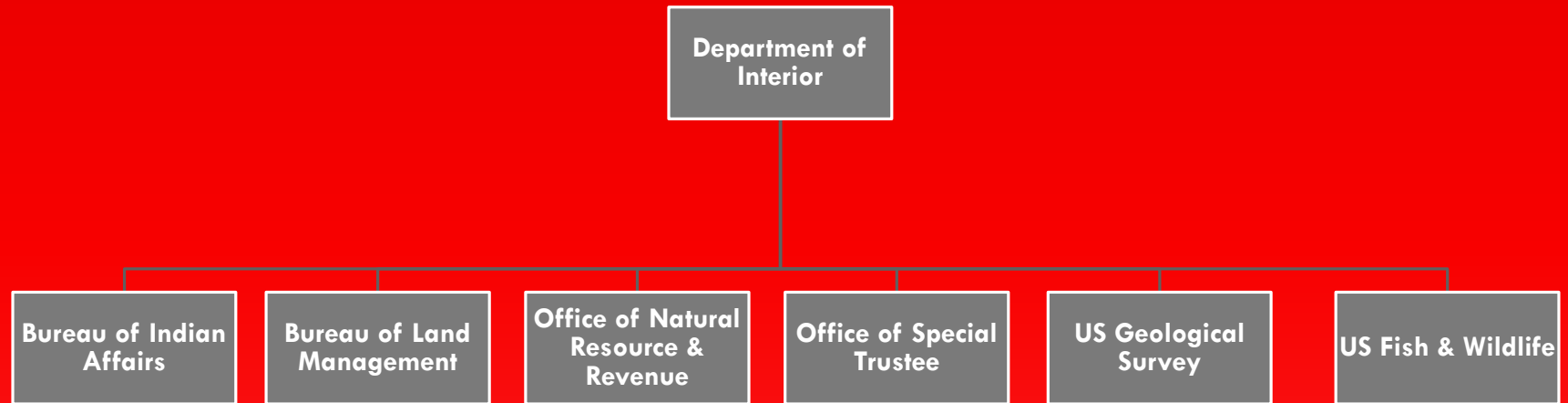
Missouri River Resources – Midstream

- Sacagawea Pipeline
 - 72 mile pipeline will transport crude oil from two origination points near Johnson's Corner in McKenzie County, ND to two destination points north of Lake Sacagawea (Stanley, ND and Palermo, ND).
 - 16 inch pipeline with initial capacity of 120,000 bbl per day.
 - Bored through bedrock 100 feet below lakebed of Lake Sacagawea.
 - Other proposed pipelines still fighting to lay (trenching) the pipeline on bottom of Lake.
 - Missouri River Resources will own 12% of crude pipeline.

Missouri River Resources – Midstream (cont.)

- Status of Pipeline – Permitting/Construction
 - State
 - permits hearings conducted and permitting in final stages.
 - Federal
 - BIA lead agency on Environmental Assessment.
 - Issued FONSI
 - Awaiting Army Corps of Engineers 408 Review – Completion date unknown.

Federal Partners Role with MHA Indian Minerals



Future MHA Development

- Gas
 - Utilizing flaring for power generation and development
 - Power development from other sources
- Pipeline Investments
 - Taxation on Tribal Lands
 - Ownership and Development
- Environmental Protection

Missouri River Resources – Exploration and Production (Future)

- 2015-2016:
 - Operated: 8 wells on two 320 acre spacing units.
- 2016-2018:
 - Operated: 24 to 32 wells on four 1280 acre spacing units.
- Continued investment in working interest (non-operated) opportunities with Reservation.

Missouri River Resources – Midstream (future)

- **Gas Gathering:**
 - Gas Pipeline to run parallel to crude pipeline.
 - MRR will build gas gathering and gas processing system onto this pipeline.
 - MRR ownership will range from 50% to 100% on the different components of this system.
- **Lateral to Thunder Butte Refinery:**
 - MRR and Thunder Butte to co-own crude 24 mile crude pipeline from Sacagawea Pipeline to Thunder Butte Refinery.

Water

Lake Sakakawea on the
Mandan, Hidatsa, and
Arikara Nation



Water

- Among the important facts emphasized by the Food and Agriculture Organization (FAO) are these two:
- Water use has been growing at more than the rate twice of population increase in the last century.
- By 2025, 1.8 Billion people will be living in countries or regions with absolute water scarcity, and two-thirds of the world population could be under stress conditions.
- Conservation over surface and sub-surface water

Physical and Economic Water Scarcity

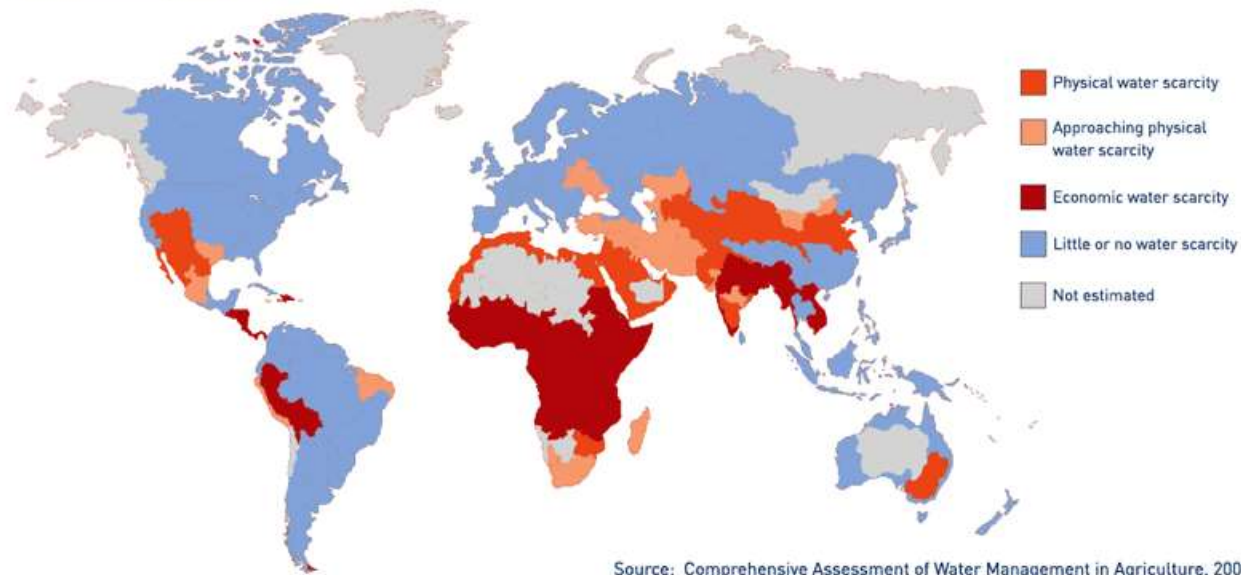
AREAS OF PHYSICAL AND ECONOMIC WATER SCARCITY

Physical water scarcity
water resources development is approaching or has exceeded sustainable limits). More than 75% of the river flows are withdrawn for agriculture, industry, and domestic purposes (accounting for recycling of return flows). This definition—relating water availability to water demand—implies that dry areas are not necessarily water scarce.

Approaching physical water scarcity. More than 60% of river flows are withdrawn. These basins will experience physical water scarcity in the near future.

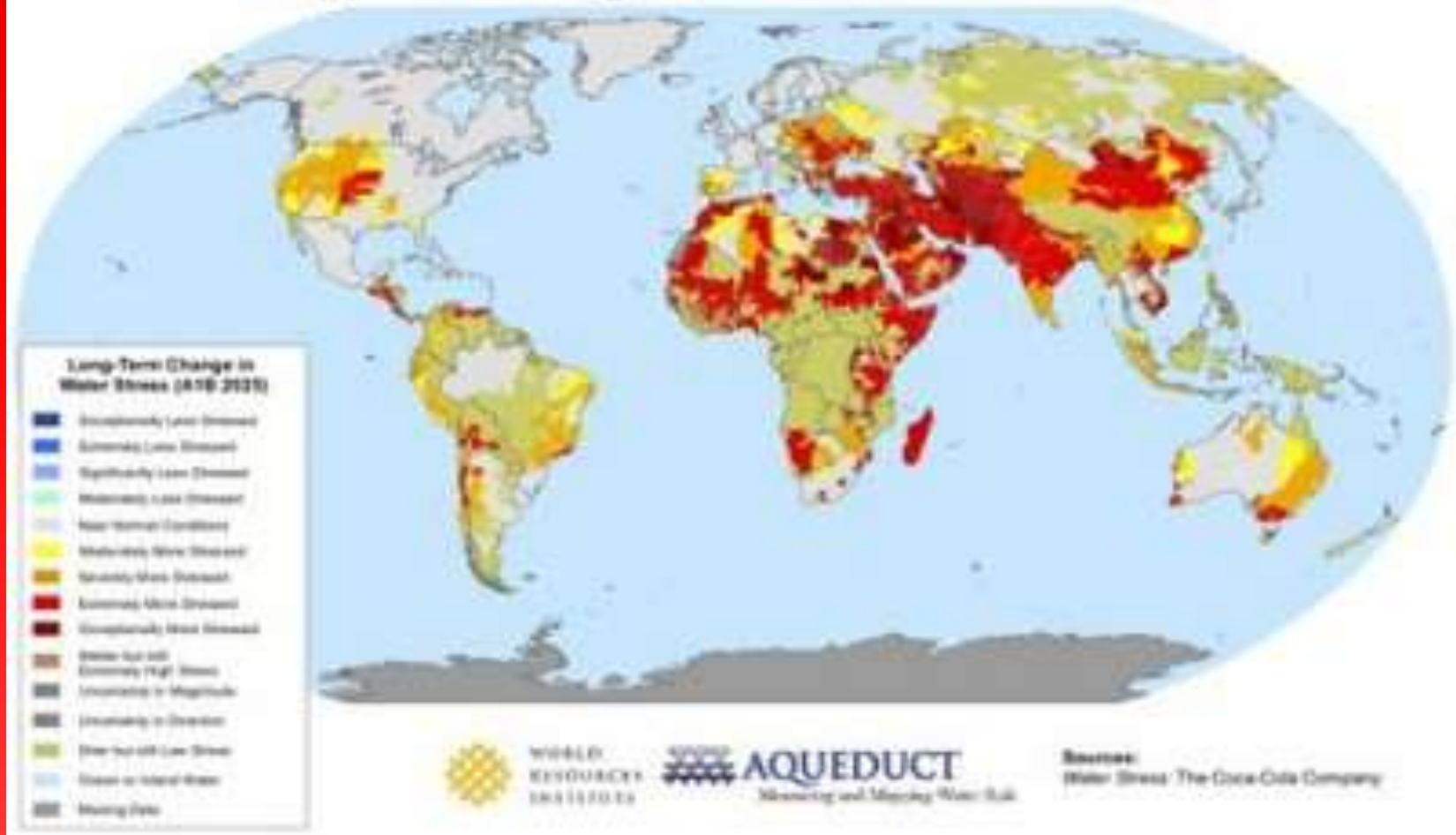
Economic water scarcity (human, institutional, and financial capital limit access to water even though water in nature is available locally to meet human demands). Water resources are abundant relative to water use, with less than 25% of water from rivers withdrawn for human purposes, but malnutrition exists.

Little or no water scarcity. Abundant water resources relative to use, with less than 25% of water from rivers withdrawn for human purposes.



Physical and Economic Water Scarcity

Long-Term Change in Water Stress (A1B 2025)



Successful Energy Development

- Key Areas
 - Positioning
 - Owning
 - National Policy Leadership
 - Collaborative Efforts
 - Stewardship and Protection