WATER TOPICS OVERVIEW COMMITTEE - INDUSTRIAL USE OF WATER

North Dakota Century Code (NDCC) Section 54-35-02.7 directs the Legislative Management during each interim to appoint a Water Topics Overview Committee in the same manner as the Legislative Management appoints other interim committees, and to designate a chairman. The committee must meet quarterly and operate according to the statutes and procedures governing the operation of other Legislative Management interim committees. The statute also sets out the committee's responsibilities, including legislative overview of water topics and related matters, the Garrison Diversion Project, and any necessary discussions with adjacent states on water topics. The statute directs the committee to work collaboratively with the State Water Commission and authorizes the committee to hold joint meetings with the commission.

STUDY BACKGROUND

In addition to the responsibilities in NDCC Section 54-35-02.7 for the 2017-18 interim, the Legislative Management assigned the committee two studies from 2017 House Bill No. 1020. Section 25 of the bill requires the committee to study industrial water use of the oil and gas industry (appendix). The study must include the recapture of water used in fracking, the recycling of water used in fracking, other oil and gas activities, fracking methods which do not require the use of water, and taxes or fees other states charge for water used in the oil and gas industry.

The committee has studied industrial water use in the past. During the 2009-10 interim, the committee studied the municipal, rural, and industrial water supply program. That program is a major source of grant funding for water supply development in the state. The program's funding was authorized by Congress through the Garrison Diversion Unit Reformulation Act of 1986. Federal funding is channeled through the Bureau of Reclamation to the state's federal fiscal agent, which is the Garrison Diversion Conservancy District. This program is administered jointly by the conservancy district and the State Water Commission. The Rural Development Agency provides funding through the United States Department of Agriculture for a majority of loans to cover the local share for municipal, rural, and industrial water supply projects.

The Garrison Diversion Unit Reformulation Act of 1986 authorized a federal municipal, rural, and industrial water supply grant program of $200 million. After that funding was exhausted, additional federal funding was authorized for the municipal, rural, and industrial water supply program with passage of the Dakota Water Resources Act of 2000. That Act provided resources for general municipal, rural, and industrial water supply projects; the Northwest Area Water Supply Project; the Southwest Pipeline Project; and a project to address water supply issues in the Red River Valley. Annual municipal, rural, and industrial water supply funding through the program is dependent upon congressional appropriations.

More recent interim Water Topics Overview Committees have monitored industrial water use and permitting, especially with regard to the oil and gas industry activity in western North Dakota. During the 2015-16 interim, the committee received a presentation from the University of North Dakota's Energy and Environmental Research Center (EERC) regarding data on industrial water needs and use in the Bakken Formation region. Due to fluctuating oil production in that region, industrial water use increased measurably between 2008 and 2015, and tapered off after 2015. Before a person may use or sell water for industrial purposes in North Dakota, the person must obtain a permit from the State Engineer's office. According to the EERC's presentation, there were 25 water permits for depots in the Bakken Formation region in 2008 before the oil boom, and 229 permits for depots in the region in 2013 during the boom. The Energy and Environmental Research Center also testified approximately 245 million barrels of water from depots were used in the Bakken Formation region during 2014, which was the peak year for depot use. As of 2016 the level had dropped to approximately 109 million barrels. However, as technological advances allow for increasing lateral length of oil wells, the need for increased fracking fluid volume also increases. Moreover, maintenance water needs also increase over time even if the number of wells drilled per year diminishes. The Energy and Environmental Research Center projected the Bakken Formation region may require up to 24.5 billion gallons of water per year by 2034. Additionally, the state will need to accommodate disposal of salt water from industrial use. New technologies for minimizing and treating that water are available, but EERC described economic and logistical deterrents to recycling and reusing the water. Much of the salt water is injected into the Dakota Formation, and EERC is studying the disposal capacity of that formation.

North Dakota Century Code Chapter 61-04 and North Dakota Administrative Code Chapter 89-03-01 set forth the state laws and regulations governing water permitting. Each permit specifies the source of water and how much may be pumped each year. The State Engineer's office tracks industrial water use, and the EERC presentation relied in part on the State Engineer's data.

The committee also has studied industrial water use in the recent past because the Western Area Water Supply Authority has received approximately $189.5 million in state-backed loans that were expected to be serviced through industrial sales. The Western Area Water Supply Authority received $110 million of those loans from the State Water Commission, Bank of North Dakota, general fund, and resources trust fund in the 2011-13 biennium. The remaining $79.5 million in loans came from the Bank and State Water Commission in the 2013-15 biennium. During the 2017 legislative session, there was considerable discussion regarding the Western Area Water Supply Authority's inability to stay current on its loan payments, in part due to the reduction in industrial water use resulting from the slowdown in the oil and gas industry. Section 9 of 2017 House Bill No. 1020 authorized the Bank to consolidate and restructure the loans, and Section 11 of that bill directs the Industrial Commission to study whether to sell or lease the Western Area Water Supply Authority's industrial water supply assets to help service the loans.

SUGGESTED STUDY APPROACH

The study will rely heavily on data from the State Engineer and others, including regional water suppliers, industrial water permittees, the Tax Commissioner, the State Department of Health, and industry representatives. The committee may seek an update from EERC regarding its data on industrial water needs and use in the Bakken Formation region since the presentation to the committee in 2016. The committee may wish to obtain testimony on and discuss the following:

- How much water is used for industrial purposes in North Dakota;
- How much of that water is used for fracking and how much is used for other oil and gas activities;
- The economic and environmental impact of industrial water use;
- How much of the water used for fracking is recaptured or recycled;
- Which fracking methods do not use water and what proportion of fracking can be accomplished using those methods;
- What is the total amount of taxes and fees the state collects for water used in the oil and gas industry; and
- What taxes and fees do other states collect for water used in the oil and gas industry.

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