



State Engineer and SWC to Hold Public Hearings on Rule Changes

On Nov. 20, the Office of the State Engineer will hold a public hearing at 9 a.m. at the State Office Building in Bismarck to address proposed new rules and amendments to North Dakota Administrative Code related to sovereign land management, and the Drought Disaster Livestock Water Supply Program.

Some of the new rules and amendments affecting sovereign land management efforts include:

- Amendments to the definitions of “navigable waters” and “ordinary high water mark.”
- Section 89-10-01-04 requires that any project on sovereign land shall need authorization by the State Engineer prior to construction or operation except as otherwise provided in the chapter.
- Section 89-10-01-08 requires that the State Engineer consider potential effects on cultural and historical resources when acting on a permit application for a project on state sovereign land.
- Section 89-10-01-11 prohibits the construction or moorage of any residential structure or structure designed for human occupancy except as otherwise provided in the chapter.
- Section 89-10-01-13 regulates the use of motor vehicles on state sovereign land.
- Section 89-10-01-14 provides that the State Engineer may cancel any project authorized under these rules.
- Section 89-10-01-21 requires

a permit from the State Engineer for organized group activities that are publicly advertised or are attended by more than 25 people on state sovereign land.

- Section 89-10-01-22 addresses control of pets on state sovereign land in and around the Missouri River between the railroad bridge near the south border of Fort Lincoln State Park and the Interstate 94 bridge.
- Section 89-10-01-23 prohibits camping for more than 10 consecutive days, or leaving a tent or camper unattended for more than 24 hours on state sovereign land.
- Section 89-10-01-24 provides that hunting, fishing, and trapping are open on state sovereign land, except as provided in other rules, regulations, or laws; and prohibits posting sovereign land with signage by anyone other than the State Engineer.
- Section 89-10-01-25 prohibits leaving watercraft unattended or moored on state sovereign land for more than 24 hours, except as otherwise specified.
- Section 89-10-01-26 prohibits unpermitted activities that remove or destroy natural resources on state sovereign land.
- Section 89-10-01-27 prohibits disturbance or destruction of cultural or historical resources on state sovereign land.
- Section 89-10-01-28 prohibits littering, abandonment of property, dumping of holding tanks of campers or boats, and possession of glass containers on state sovereign land.

Some of the new rules and amendments affecting the Drought Disaster Livestock Water Supply Assistance Program include:

- An amendment to the definition of a “water supply project.”
- Section 89-11-01-02 provides that the State Water Commission will determine a beginning and end date of the program.
- Subsection 2 of Section 89-11-01-04 removes the requirement that cost-share assistance is available only for long-term immediate solutions.
- Subsection 4 of Section 89-11-01-04 provides the following items are eligible for assistance - new water wells, rural water system connections, pipeline extensions, pasture taps, pumps, generators, electrical and solar hook-ups, stock water tanks; and labor, materials, and equipment rentals for work completed by the producer.
- Subsection 5 of Section 89-11-01-04 limits an applicant to three projects.
- Subsection 2 of Section 89-11-01-05 provides that projects outside of North Dakota are not eligible for cost-share.
- Subsection 6 of Section 89-11-01-05 provides that repairs due to damage to an existing water source are not eligible for cost-share.
- Subsection 2 of Section 89-11-01-06 requires the State Engineer to acknowledge receipt of an application.
- Subdivision a of subsection 2 of Section 89-11-01-06 provides that the State Engineer may grant an extension of time to complete a project if a written request is submitted and just case for an extension is provided.

The official Notice of Intent to Adopt and Amend Administrative Rules is found on the ND State Water Commission website at www.swc.nd.gov. PDF files of the proposed rule changes are also found on the website.

View Real-Time USGS Stream Gauges in Google Earth

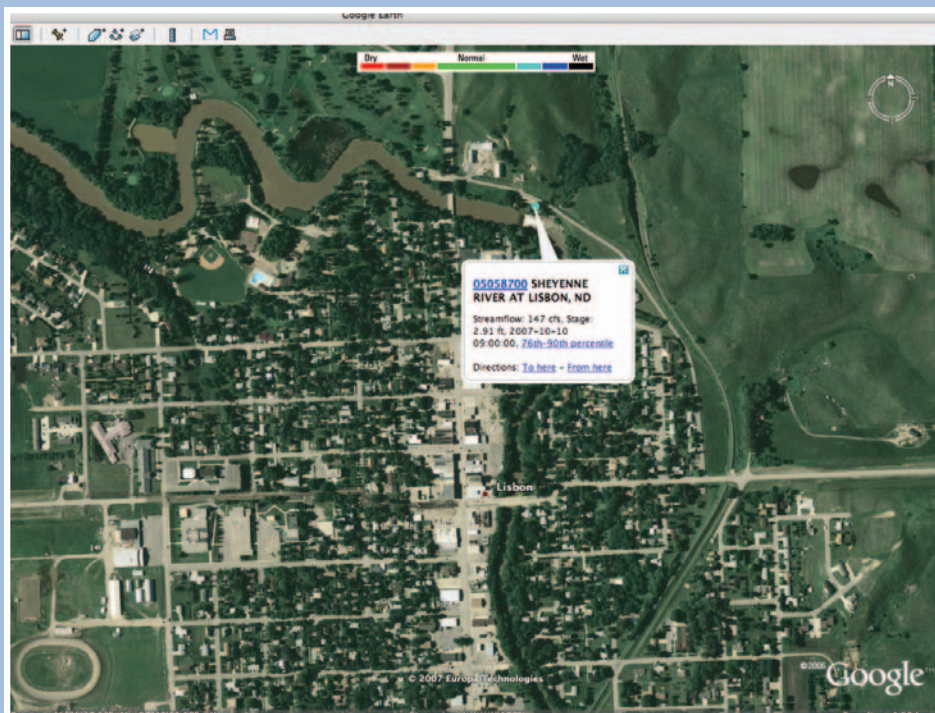
It is now possible to view real-time U.S. Geological Survey stream gauges in Google Earth. Google Earth is an interactive map service and 3-D viewer that seamlessly zooms from a

global scale down to less than a meter in many urban areas. Google Earth is a free application for Windows and Mac computers and is available at <http://earth.google.com>.

The Google Earth user community is using a feature of the program to make a wide range of geographic-related information available to fellow users. This is normally accomplished by creating a .kmz file that is essentially an overlay that will be portrayed on the Google Earth maps. One such overlay was created to provide easy access to the USGS live stream gauging network. The USGS provides a free download of this feature from their website at: <http://water.usgs.gov/waterwatch/kmls.real.kmz>.

Once you have downloaded the .kmz file, just open it in Google Earth. The gauges are color-coded by streamflow condition – from dry to wet.

If you have developed or know of any other Google Earth overlay downloads that might be useful to water managers, please send an e-mail to the Water Commission at swc@nd.gov to tell us about them.



More Publications Available on Water Commission Website

The Water Commission is now offering several new resources online for download, including past state water management plans, agency biennial reports, and *North Dakota Water* magazine articles. Past agency biennial reports and water plans provide an excellent historic perspective of where North Dakota has been, and where the state has intended to go at various times in its water management history. The magazine articles that the Water Commission has developed over the years have covered a broad spectrum of topics, many of which could serve as valuable resources for a number of uses. These, and several other publications and reports can be accessed via the Water Commission website at www.swc.nd.gov under “Reports and Publications.”

Water Management Plans

Since 1937, when the State Planning Board Published the first state-wide water plan, the State Water Commission has been dedicated to developing and maintaining plans for water resource management and development. In more recent years, Water Development Reports have served as supplements to the agency’s State Water Management Plan. Water Plans available for download include those from 1937, 1968, 1983, 1992, and 1999. Water Development Reports are available from 2001, 2003, 2005, and 2007.

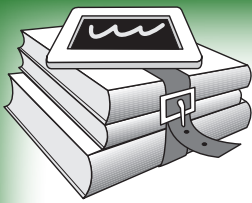
North Dakota Water Articles

The State Water Commission contributes a three-page section

of articles to *North Dakota Water*, published by the North Dakota Water Education Foundation. The Water Commission’s pages are designed to inform readers about Water Commission projects and programs, as well as local, state, and national water management issues. The magazine is published monthly, excluding February and August.

Biennial Reports

The North Dakota State Water Commission and the Office of the State Engineer have been publishing agency biennial reports since 1904. The purpose of the reports is to document agency activities that have occurred over the course of each biennium.



THE WATER PRIMER

MOSSPs: The New Volume Unit of Choice?

By Patrick Fridgen

Any water management agency would agree that public education is a critical component of its everyday operations. Education can be used to change undesirable practices; reinforce positive actions and behavior; or to simply shed some light on various topics that, more often than not, appear more complicated than they need to be.

In fact, the very purpose of this section of *North Dakota Water* magazine, *the Water Primer*, has been used by the Water Commission to do just that: explain a water-related issue, or answer a common water-related question that tends to keep popping up. And in some cases, in our efforts to

simplify the complicated, we try to make comparisons that, apparently, help put things into perspective.

When talking in terms of water volume, we often hear and use terms like millions of gallons per day, gallons per minute, cubic feet per second, or acre-feet. But one can't help but wonder: what is the deal with Olympic size swimming pools and their use as a basis for explaining volume?

Apparently, someone, somewhere decided that it was easier for people to understand the volume of an Olympic size swimming pool than an acre-foot of water (which is simply one foot of water covering an area the size of one acre). So one can't also help but wonder, how

many people, including professionals in water management, even know that an Olympic pool is 50 meters long, 25 meters wide, and 2 meters deep, which amounts to 2,500 cubic meters of water? And, at what point did an Olympic pool become more easily understood than an acre?

In North Dakota, the term acre-foot is most often used by agencies when describing large volumes of water, for example, in lakes or reservoirs. In fact, the term million acre-feet and the acronym MAF are commonly used. As described previously, the acre-foot is a fairly simple concept, particularly from a comparison perspective. This is especially the case in an agricultural state like North Dakota, where the term "acres" of this or that commodity are discussed in all parts of the state, by all walks of life, on a day-to-day basis. In fact, it's a safe bet that the term "acre" gets thrown around a bit more than "Olympic pool," at your local cafe.

So, the next time we report that there are 12 million acre-feet of water in Lake Sakakawea, we might also feel inclined (for some reason), to tell you that it's equivalent to 5.9 million Olympic size swimming pools (MOSSPs). Hopefully, we won't decide it's easier to report it as 2,992,480,000,000,000 teaspoons.

WATER EQUIVALENTS TABLE

1 cubic foot	7.48 gallons	62.4 pounds of water
1 acre-foot	43,560 cubic feet	325,900 gallons
An acre-foot covers 1 acre of land 1 foot deep		
1 cubic foot per second (cfs).....	450 gallons per minute	
1 Olympic Pool.....	2.026 acre-feet.....	660,430 gallons
1 cfs	0.98 pools	646,360 gallons per day
For 24 hours	1.983 acre-feet	
For 30 days	59.5 acre-feet	
For 1 year.....	724 acre-feet	
1 million gallons	3.07 acre-feet	
1 million gallons per day (mgd).....	1,122 acre-feet per year	
1,000 gallons per minute (gpm).....	2.23 cfs	
1,000 gpm	4.42 acre-feet per day	
An acre-foot supplies a family of five for one year		

Correction from Sept. 2007 issue:

The Water Commission approved a cost-share request from the Maple River-Rush River Joint Water Resource District in the amount of \$500,000 (not \$250,000) for the district's Swan Creek Diversion Ditch project.



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