The Connection of Ground Water & Surface Water

The hydrologic cycle. Adapted from NeDNR, 2011.
Soil type and depth to water are the main factors in determining the vulnerability of groundwater.

BMPs, such as irrigation management and proper nitrogen/pesticide applications, are needed to prevent contaminants from entering our drinking water.

There is approximately 1 registered well for every 10 people in Nebraska

<table>
<thead>
<tr>
<th>Water Use</th>
<th>Active</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irrigation</td>
<td>96,393</td>
</tr>
<tr>
<td>Domestic</td>
<td>29,481</td>
</tr>
<tr>
<td>Livestock</td>
<td>19,866</td>
</tr>
<tr>
<td>Monitoring (groundwater quality)</td>
<td>16,999</td>
</tr>
<tr>
<td>Public Water Supply</td>
<td>3,036</td>
</tr>
<tr>
<td>Commercial/Industrial</td>
<td>1,728</td>
</tr>
<tr>
<td>Other</td>
<td>13,501</td>
</tr>
<tr>
<td>TOTAL</td>
<td>181,004</td>
</tr>
</tbody>
</table>

65% of all registered wells are irrigation or livestock wells

Active registered water wells as of November 2016. Source: NDNR, 2016
10% of Nebraska’s Townships Sampled Have Median Nitrate Levels Over the Safe Drinking Water Limit.

Median of the most recent Nitrate-N concentration by township of 19,743 wells from 1995-2015.

Gray areas indicate no data reported, not the absence of nitrate in groundwater.

Source: Quality Assessed Agrichemical Database for Nebraska Groundwater, 2016
NRDs are working on protecting groundwater & surface water with long-term watershed plans.

How Do Your Communities’ Drinking Water Rates Compare?

Average Monthly Residential Drinking Water Rate

- $5.70 - $20.00
- $20.00 - $30.00
- $30.00 - $40.00
- $40.00 - $50.00
- $50.00 - $87.20

2016 Median Household Income by County

- $38,000 - $45,000
- $45,000 - $50,000
- $50,000 - $55,000
- $55,000 - $60,000
- $60,000 - $75,000

* Metered drinking water rate data is based on 8,000 gallons of water use per month.
* Non-metered water rate is the base rate charged.
* Not all communities are shown. Only 377 or 70% of communities have data.

Source

- USDA 2016 Economic Research Service
- NDEQ 2017 Drinking Water Needs Survey
- Nebraska Rural Water Association 2016-2017 Water and Sewer Rates Comparison Study
How Do Your Communities' Water Rates Compare?
(Drinking Water + Waste Water)

Average Monthly Residential Combined Water Rate
- $13.70 - $35.00
- $35.00 - $55.00
- $55.00 - $75.00
- $75.00 - $95.00
- $95.00 - $129.83

2016 Median Household Income by County
- $38,000 - $45,000
- $45,000 - $50,000
- $50,000 - $55,000
- $55,000 - $60,000
- $60,000 - $75,000

*Metered drinking water rate data is based on 8,000 gallons of water use per month.
*Metered wastewater rate data is based on 5,000 gallons of water use per month.
*Non-metered water rate is the base rate charged.
*Not all communities are shown. Only 335 or 63% of communities have data.

Source
- USDA 2016 Economic Research Service
- NDEQ 2015 & 2017 Clean Water Needs Survey
- NDEQ 2017 Drinking Water Needs Survey
- Nebraska Rural Water Association 2016-2017 Water and Sewer Rates Comparison Study
Nebraska Wellhead Protection Network

A number of organizations and agencies in Nebraska work to support communities as they develop and adopt wellhead protection (WHP) programs. The Nebraska Wellhead Protection Network (NeWHPN) began in 2001 to provide an opportunity for these organizations and agencies to meet, discuss their work and identify community needs. Meetings are also an opportunity for the group to get information about hot topics related to their field.

The Groundwater Foundation serves as facilitator and record-keeper for the NeWHPN, which is funded by the Nebraska Department of Environmental Quality.

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NRD contacts and information  
https://www.nrdnet.org/

Individual Public Water System contacts and information  
https://sdwis-dhhs.ne.gov:8443/DWW/