

Water Quality Response Plan

City of Elko New Market

I. **Stage 1. Water Quality Sampling.** The City will complete the following work and provide one summary data package to the DNR by February 1, 2025 or at least 30 days before the City projects it will begin appropriating at 800,000 gallons per day on average for 14 days or more. The City will need to project ahead to this level of usage based on historical patterns, extended weather forecasts, and any large user forecasts. Data used for projections will be updated as trends become apparent or new information becomes available and reported to DNR.

A. Collect and analyze water quality samples from a minimum of 20 domestic wells or city monitoring wells

1. The City will make and document a good-faith effort to identify 20 or more domestic wells or as close to that number as practical. Wells must be within about 2 miles of the city and screened in the QBUA, QBAA, CJDN, and/or OPDC aquifers. Wells selected for sampling should be representative of neighborhoods, or similarly situated clusters of wells that can be reasonably expected to respond similarly to changing aquifer conditions. Some of the wells selected will be as close to city wells as possible and the entire 20 will have spatial variability, aquifer variability and coverage from the city wells. DNR will need to approve well selection prior to sampling. The data must include well location and well construction information.

2. Water quality samples will be sampled at a point in the water distribution system where the water has not been treated (i.e., before the water softener, filter, etc.).

3. Samples will be tested at an accredited water quality laboratory for major cations/anions plus Mn, Fe, SO₄, NO₃, As, as well as field parameters conductivity, redox, DO, and pH.

a) Major cations are Ca, Mg, Na, and K

b) Major anions are HCO₃ and Cl

4. The cost of sampling, including laboratory analysis, will be at the City's expense.

B. Notify well owners if any of the following parameters exceed current MDH health risk guidelines.

1. Manganese at or exceeding 100 micrograms/liter

2. Nitrates at or exceeding 10,000 micrograms/liter

3. Arsenic at or exceeding 10 micrograms/liter

C. Retain records of sampled wells and sample results indefinitely.

II. **Stage 2 Notifications.** By May 1, 2025, or before the City projects it will begin appropriating at 800,000 gallons per day on average for 14 days or more, the City will provide the following notifications:

A. Post information on the City’s website and in at least one mass flyer mailing stating at a minimum whom well owners should contact at the City if they have water quality complaints which they believe to be caused by the City’s pumping. The mailing must be addressed to owners of parcels located within 2.5 miles of City wells E2, E3, and E4 that are not served by the City’s water system.

III. **Stage 3.** Repeat water quality sampling steps from stage 1 once during the first occurrence after the City observes pumping rates averaging 1,000,000 gallons per day or more for a period 2 weeks. Samples will be grabbed, but not necessarily analyzed, within 7 days of the occurrence of the pumping demand described. The city will provide one summary data package to the DNR within 2 weeks of receiving the information and notify well owners if any parameters exceed MDH health risk guidelines described in this plan.

IV. **Stage 4.** Repeat water quality sampling steps from stage 1 during the period following Stage 3 when pumping declines to anticipated baseline winter pumping rates (about 600,000 gallons per day after a period of 4 weeks). Samples will be grabbed, but not necessarily analyzed, within 7 days of the occurrence of the reduced pumping demand described. The city will provide one summary data package to the DNR within 2 weeks of receiving the information and notify well owners if any parameters exceed current MDH health risk guidelines.

V. **Investigate Water Quality Complaints.** If the City receives a water quality complaint from the owner of a well site located within 2.5 miles of City wells E2, E3, or E4, or one is referred to the City by the DNR, the City (or a delegated party such as their Contractor or Consultant) will:

A. Request that the homeowner provide to the City:

1. A description and timeline for the water quality concerns, and
2. Results of all water quality samples collected from the well, including the location where the sample was collected (e.g., kitchen sink, outside faucet, etc.).
3. Other information the City may deem useful to investigate the complaint.

B. If water quality data that represents the current condition has not been collected, contract with a licensed water quality laboratory or third-party testing company to visit the well and collect a water quality sample **within 30 days of receiving the information described under IA from the well owner.**

1. Collect the sample at a point in the water distribution system where the water has not been treated (i.e., before the water softener, filter, etc.).
2. The cost of collecting and analyzing the sample will be at the City’s expense.

C. Samples will be tested at an accredited water quality laboratory for major cation/anion plus Mn, Fe, SO₄, NO₃, As, as well as field parameters conductivity, redox, DO, and pH.

D. Compare the water quality data collected to the baseline water quality data collected under Stage 1 Baseline Water Quality Sampling and determine whether the current water quality has changed such that it is outside the previously observed range for any parameter under baseline conditions or has changed such that it exceeds current MDH health risk guidelines.

1. If the complainant well has water quality data that predates Elko New Market's increased pumping under the June 2024 permit amendment, that data shall be included as part of the "baseline" data set, but flagged as privately obtained. The sample point will also be listed, if known.

2. Complete the comparison and determination described above, prepare summary documentation of the complaint and analysis, and provide the documentation to DNR and the complainant within 60 days of **receiving the information described under IA from the well owner**. All data used for the analysis must be included in the summary documentation.

3. If the City determines that under V.D.2 the water quality has changed for the worse to a degree that is outside the expected range, then the City will:

a) Contract a qualified firm to recommend in-home treatment method(s) and prepare a corrective action agreement; OR,

b) Prepare a cash settlement offer agreement

c) Corrective action or settlement agreements shall consider capital costs and may consider ongoing operations, maintenance, repair or replacement costs only to restore to prior conditions.

d) Confirm the acceptability of the proposed agreement with the well owner;

(1) If the well owner declines the proposed agreement, the well owner may counter-offer based on recommended correction by the well owner's contractor or other justification(s).

(2) If the City and well owner are unable to reach agreement regarding settlement, both parties should submit their proposed treatment plans, costs, and justification to the DNR for determination of reasonableness. DNR will consult with MDH and make a determination within 60 days of receiving the proposals.

e) Implement the agreed-upon (or DNR-determined) treatment method at the City's expense **within 60 days** of the well owner confirming the acceptability of the City's proposed solution OR within 60 days of DNR's determination.

4. If the City determines under V.D.2 that the water quality has not changed to a degree that is outside the expected range and the well owner does not agree with their determination, then the well owner may request DNR review of their water quality complaint.

VI. **Retain all records of water samples and water quality complaints and analyses and submit those to the DNR upon request.**