

## FORM #1

### FORM FOR PETITIONING THE STATE ENVIRONMENTAL COMMISSION FOR ADOPTION, FILING AMENDMENTS OR REPEAL OF COMMISSION REGULATIONS

1. Nevada Division of Environmental Protection  
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2. The Nevada Division of Environmental Protection (NDEP) is a division of the Nevada Department of Conservation and Natural Resources of the State of Nevada. The NDEP is a regulatory agency.
3. Nevada Revised Statute (NRS) 445A.425 establishes the authority of the State Environmental Commission to adopt regulations to carry out provisions of NRS 445A.300 – 445A.730, including standards of water quality and amounts of waste which may be discharged into waters of the State.

#### SPECIFIC CHANGES:

The NDEP is proposing to amend Nevada Administration Code ((NAC) 445A.070 – 445A.2234), *Standards for Water Quality*, to align with the most current recommended numeric criteria published by the U.S. Environmental Protection Agency (EPA) for *Escherichia coli* (*E. coli*) bacteria to protect the water contact recreation beneficial use. The proposed revisions include: (1) change the existing reference period from annual geometric mean (AGM) to geometric mean (GM) for all waters that have an existing AGM to protect the water contact recreation beneficial use; (2) change the unit of measurement from most probable number (MPN) per 100 mL to colony-forming-units (CFU) per 100 mL; (3) remove existing single value (SV) criteria of 235 MPN, 298 MPN and 576 MPN and replace with a SV of 410 CFU; (4) add a footnote that explains frequency and duration limits of the GM and SV criteria; and (5) add a definition of colony-forming-units.

#### 4. NEED AND PURPOSE:

EPA's water quality standards regulations at 40 CFR 131.11(a)(1) require states to adopt protective criteria that are based on sound scientific rationale. Nevada's existing *E. coli* bacteria standards for the protection of the water contact recreation beneficial use are based on EPA criteria published in 1986. EPA published updated *E. coli* bacteria criteria in 2012. The 2012 criteria reflect significant research and new scientific developments that have occurred since the prior criteria issued in 1986.

The new criteria comprise a more defined duration and frequency. The current AGM is changed to a GM that must be met in any 30-day interval. The existing *E. coli* standards include single value criteria for different levels of use (Beach—SV 235; Moderate—SV 298; Light—SV 410; and Infrequent—SV 576). The new criteria contain one single value, 410, that must not be exceeded more than ten percent of the time in any 30-day interval. This criterion has been determined to be protective of all levels of use. The method used to estimate colony-forming-units has been determined to be less variable than the method used to estimate the most probable number and therefore CFU estimates better reflect the true bacteria levels in a given sample.

To maintain a more restrictive standard to protect the Lake Tahoe designation of a Water of Extraordinary Aesthetic or Ecological Value, the existing S.V. 126 standard is being retained and a GM is not being proposed for Lake Tahoe and its tributaries. The units are being changed from MPN to CFU and a footnote indicating that the S.V. must not be exceeded more than ten percent of the time in any 30-day interval is being added.

Adoption of EPA's 2012 criteria ensures the most appropriate protection for recreational users of Nevada's surface waters.

#### 5. ECONOMIC EFFECTS:

##### (a) Regulated Business and Industry

The proposed revisions are not expected to have an economic effect on regulated business and industry. Bacteria standards already exist and are incorporated into discharge permit limits. A review of discharge monitoring reports showed that bacteria levels in treated discharges are usually an order of magnitude lower than both the existing and proposed standards. Existing treatment technology is therefore considered to be adequate to meet the proposed criteria.

##### (b) Public

The proposed bacteria standards are based on the most up to date scientific knowledge regarding the protection of human health and will have beneficial effects in terms of protecting public health and welfare, and supporting water contact recreational uses.

##### Enforcing Agency

Implementation of the proposed regulation is not expected to result in additional cost to the agency for enforcement as permit compliance is already built into the Bureau of Water Pollution Control permit fee structure.

#### 6. The proposed regulation does not duplicate or overlap with any other State regulations.

7. The proposed regulation is not more stringent than federal regulations. It aligns Nevada's bacteria standards with the most current EPA recommended bacteria criteria for the protection of human health.
8. The proposed regulation does not provide for fees.

