MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY

NUTRIENT-REDUCING WASTEWATER TREATMENT SYSTEM DESIGNATION FORM

DATE: June 28, 2011

APPLICATION SUBMITTAL DATE(S): MARCH 15, 2007; APRIL 30, 2007; MAY 3, 2007; APRIL 6, 2011

SYSTEM MANUFACTURER: Northwest Water Systems, Inc. (NWS)

SYSTEM NAME(S): NWS 7500 model sequencing batch reactor with methanol addition, coagulation and filtration

DESIGNATED TREATMENT LEVEL[1]: Level 2 (Can use 7.5 mg/L for effluent total nitrogen concentration in nitrate sensitivity analysis)

CONDITIONS:

A. All NWS 7500 systems are required to obtain a Montana Ground Water Pollution Control System (MGWPCS) Permit pursuant to Administrative Rules of Montana (ARM) 17.30.1022(1)(e) and (f) due to the high operation and maintenance requirements for this system.

B. This approval does not extend to NWS 7500 systems that serve facilities with either highly variable wastewater flows or wastewater quality. These facilities include but are not limited to schools, churches, and camps. The effluent data submitted for previous applications indicated that the NWS 7500 does not provide adequate or consistent nitrogen reduction in facilities with variable wastewater characteristics. To ensure consistent wastewater flows, this approval is valid only for facilities where at least 90% of the design wastewater flow is coming from residential units (or commercial units producing residential-strength wastewater) where consistent year-round occupancy is anticipated.

C. The NSF/ETV testing data report (August 2006) also indicates that this treatment system can consistently remove phosphorus in the effluent to 3 mg/L.

APPROVED BY: Eric Regensburger

NOTES:

1 The definitions of level 1a, level 1b, and level 2 are in ARM 17.30.702(9), (10) and (11), respectively.