

JORDAN LAKE WATER QUALITY MONITORING REPORT

February 28, 2020

SESSION LAW 2009-216 SECTION 3.(c) requires the Department of Environmental Quality to submit water quality monitoring reports for Jordan Lake every three years until the lake is no longer impaired by nutrient pollution.

Jordan Lake consists of three arms: Haw River, Upper New Hope Creek, and Lower New Hope Creek, with 22 monitoring stations throughout the lake. The Environmental Protection Agency (EPA) reviewed and approved 2018 NC Water Quality Assessment, based on five years of data, is the most recent annual report available to determine water quality impairment. The key water quality parameter for determining nutrient pollution is chlorophyll a. Of the monitoring stations, 21 of 22 are not meeting the standard for chlorophyll a, so the associated portions of the lake were determined to be impaired. The chlorophyll a standard is 40 micrograms per liter (µg/l) with a 10% exceedance allowance using a 90% confidence interval. This standard and the methodology to determine impairment has been approved by the EPA. In addition to the chlorophyll a impairment, the upper sections of all three arms remain impaired for turbidity, and the Haw Arm also remains impaired for pH. Both of these parameters are related to

nutrient impairment.

Table 1: Jordan Lake Chlorophyll a Sampling			
Monitoring Station #	Number of samples	Number of samples exceeding 40 µg/l	Frequency of sample exceedance (%)
CPF055C	90	24	27
CPF055C1	46	10	22
CPF055C2	46	16	35
CPF055C3	46	13	28
CPF055C4	46	12	26
CPF055C5	44	15	34
CPF055C6	46	8	17
CPF055D	89	11	12
CPF055E	88	8	9
B2450000	70	19	27
CPF086C	90	68	76
CPF086CUPS	44	31	70
CPFMC01	3	1	33
CPFMC02	46	39	85
CPFMC03	46	33	72
CPFMC04	46	32	70
CPF081A1B	42	28	67
CPF081A1C	93	74	80
CPF086F	94	54	57
CPF087B3	89	23	26
CPF087D	88	16	18
CPF0880A	90	6	7

Subsequent Session Laws, 2016-94 and 2018-5 established requirements for readoption of nutrient rules for Jordan Lake. Pursuant to these session laws, following receipt of the NC Policy Collaboratory report in December 2019, the readoption of the Jordan Lake Rules has been initiated.

The monitoring station results and locations are provided in the table and map below. If you have any questions, please contact Patrick.Beggs@ncdenr.gov.

2018 Integrated Report Jordan Lake Assessments

(Exceeding Criteria Parameters are Labeled)

