EXHIBIT C

CORALVILLE LAKE

STANDING INSTRUCTIONS TO RESERVOIR PERSONNEL

C-01. <u>Instructions to Reservoir Operations Manager</u>. All regulation instructions shall be furnished by the reservoir forecaster, Water Control Section, Hydrology and Hydraulics Branch. The reservoir forecaster is designated to analyze hydrologic data and issue instructions to the reservoir operations manager for all gate operations. Normally, regulation instructions will be furnished by email or telephone. Under emergency conditions, the reservoir operations manager is authorized to operate the gates as outlined in the regulation schedules of this exhibit and record all the details of operation. In addition to this exhibit, all information pertinent to regulation shall be furnished to the reservoir operations manager.

C-02. <u>Non-Duty Hours of Operation</u>. Gate changes will be made during normal working hours, insofar as possible. In the event that conditions require immediate action, gate instructions may be given for any hour. If unusual conditions arise during non-duty hours, reservoir personnel should contact the forecaster at the phone number listed on the daily instructions email or the Chief, Water Control Section, at

C-03. Pool Regulation.

a. <u>Normal Operation</u>. Seasonal conservation pool levels will be maintained following Schedule A except as described in paragraph 7-13 of the Coralville Water Control Manual which discusses deviations from normal operation.

b. <u>Large Magnitude Flood Operation</u>. A large magnitude flood is said to exist when the pool level is above or forecast to exceed elevation 707 feet NGVD. Under these conditions the Large Magnitude Flood Operation Schedule B will be followed. When the pool rises above elevation 712 feet NGVD, uncontrolled discharge prevails.

c. <u>Inflow Less than 150 cfs</u>. For all inflows below 150 cfs, a minimum release of 150 cfs will be made from the conservation storage at Coralville Lake. This release rate will continue until the pool is at or below 678.0 feet NGVD, at which time release rates will be made in accordance with the Drought Schedule C.

d. <u>Flash Flood Operation</u>. Any date the pool is below 707 feet NGVD and the flow is above or forecast to exceed 16,000 cfs at Iowa City, reduce the release to no less than 1,000 cfs to maintain the flow in so far as possible at or below 16,000 cfs in Iowa City, Iowa.

C-04. An "emergency" exists when communications cannot be established between the reservoir Operations Manager and the Water Control Section and gate changes are necessary. During an emergency the reservoir operations manager will follow the Water Control Plan. A summary of the various schedules appears in table C-2. Records will be kept of all gate changes, pool levels, and all other gaged data. The reservoir Operations Manager will continue to provide the public information on reservoir releases.

Situation	Pool Condition	Forecast	Schedule	Page
Normal Operation	Above 683 Below 707	Peak below 707	А	C-3
Large Magnitude Flood	Above 707	Peak above 707	В	C-4
Drought	Below 683	Inflow less than 150 cfs	С	C-5
Flash Flood	Below 707	Iowa City flow 16,000 cfs	D	C-5

Table C-1. Summary of Reservoir Water Control Plan Schedules

C-05. <u>Flood Warnings and Forecasts</u>. It is the responsibility of the National Weather Service (NWS) to issue flood forecasts and warnings. A reservoir operations forecast is issued daily (or more often as needed) by the Water Control Section on RiverGages.com and refers to the anticipated gate operations and releases based on the NWS inflow forecast. The reservoir operations forecast includes one or more days of predicted rainfall that is included in the official NWS inflow forecast utilized in the District's reservoir simulation model. The number of days of predicted rainfall that is included in the NWS inflow forecast varies seasonally and is occasionally lengthened for specific storm events when the NWS deems it appropriate due to the significance and level of confidence in the predicted rainfall. The Water Control Section provides pertinent information pertaining to Coralville Lake operations to the NWS.

Under emergency conditions, when there is not time for the National Weather Service to issue flood warnings, the reservoir operations manager is responsible for warning the public regarding sudden changes in release rates, which may adversely affect interests downstream.

Regulation Schedule		
Schedule A	Conservation Pool Schedule	
Normal Flood Control Operation	Date	Operation
Pool elevation at or forecast between 683 and 707 ft NGVD	16 Dec – 20 Feb 21 Feb – 20 May 21 May – 30 Aug 01 Sep – 15 Dec	Hold 683-684 Hold 683 to 679^ Hold 683-684 Raise pool to 688*
	[^] Optional variable di cover, ice, and 30-day coordinated with IDN	
	* Fall Pool Raise. Do coordinated with the I	

<u>TABLE C-2</u> Coralville Lake Regulation Schedule

<u> </u>	0 <i>t</i> :
Condition	Operation
A-I Any Date	Maintain conservation pool according to schedule without exceeding release of 10,000 cfs except as limited by condition A-II or A-III.
	Do not release less than minimum outflow of 150 cfs except as required in Schedule C, conditions C-II and C-III
A-II	
Any Date Stage above or forecast to exceed Lone Tree (Tri-County Bridge) - 19.0 ft Wapello - 25.0 ft	With due allowance for travel times, reduce the release to no less than 1,000 cfs to control stages in so far as possible during the peak three days of the crest.
A-III Any Date Stage above or forecast to exceed 18.0 ft on the Mississippi River at Burlington, IA	With due allowance for travel time, reduce the release to no less than 1,000 cfs to control the stage in so far as possible during the peak seven days of the crest on the Mississippi River.

Schedule B Large Magnitude Flood Operation	
Pool Elevation above or forecast to exceed 707 feet NGVD	

Condition	Operation	
B-I Any Date Reservoir pool elevation is above or forecast to exceed 707 ft NGVD	When forecasts indicate that anticipated runoff will produce a peak reservoir elevation above 707 feet if operated under Schedule A, release rates will be made in accordance with the following schedule when the reservoir is at or forecast to reach the levels listed:	
	Elev.Outflow (cfs)707.012,000710.014,000710.516,000711.018,000711.520,000712.0Fully open	
B-II Any date Reservoir has peaked above 707 ft NGVD and is falling	Release maximum outflow reached in B-I (or fully open conduit for spillway overflow) until reservoir elevation rate of fall begins to exceed 1-ft per day. Then adjust release accordingly to maintain recession rate of 1-ft per day to conservation pool. Once recession is established and outflow is decreased, outflow will not be increased unless the reservoir is forecast to exceed elevation 707 ft NGVD. As the pool approaches conservation level, reductions in outflow should be limited to 2,000 cfs per day.	

Schedule C		
Drought Operation for Water Quality Low Flow Augmentation		
Condition	Operation	
C-I Any date the pool level is between 683.0 ft and 678.0 ft NGVD	Release 150 cfs	
C-II Any date the pool level is between 678.0 ft and 677.0 ft NGVD	Reduce release to 100 cfs	
C-III Any date the pool level is below 677.0 ft NGVD	Reduce release to 75 cfs	

Schedule D Flash Flood Operation		
Condition	Operation	
Flash Flood: Any date the pool level is below 707 ft NGVD and the flow is above or forecast to exceed 16,000 cfs at Iowa City.	Reduce release to no less than 1,000 cfs to maintain flow at or below 16,000 cfs at the Iowa City Gage.	