

DICKINSON COUNTY

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**DICKINSON COUNTY
EMERGENCY MANAGEMENT COMMISSION**

**DICKINSON COUNTY
HIGH-WATER PLAN**

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Note: The historical data referenced in this document are obtained from the United States Geological Survey (USGS) gauging stations located at Lakeside Lab on West Lake Okoboji Lake and Marble Beach State Recreation Area on Big Spirit Lake.

Water levels in this document are reported in inches above dam elevation/crest level and USGS gauge level (feet). For reference, the dam elevation/crest level for each lake is:

- Big Spirit Lake - 0" (14.15').
- Okoboji chain of lakes - 0" (4.04').

Introduction

Purpose

The purpose of this document and policy is to establish thresholds and emergency rules for boat speed on the lakes of Dickinson County during high water events.

History

Major flooding occurred in the Iowa Great Lakes area in 1993. More recently, high-water events occurred in 2011 and again in 2018. While the two most recent events were far below the water levels experienced in 1993, high water caused numerous shoreline erosion issues and bank collapses.

In 1993, a 300-foot no-wake restriction was put in effect on July 8¹. On that day, Big Spirit Lake rose to 48" (18.19') and the Okoboji chain of lakes rose to 41" (7.46'). A complete no-wake rule was implemented on July 12² when the Big Spirit Lake water level reached 51" (18.44') and the Okoboji chain of lakes water level reached 48" (8.05'). The lakes would crest about a week later. The restrictions were partially lifted on August 14³. The emergency rules put in place in 1993 resulted from a disaster proclamation by the State of Iowa.

To address high water concerns in 2011, the Emergency Management Commission held an emergency meeting at the request of the Iowa Department of Natural Resources and residents on East Lake Okoboji. After this meeting, the Dickinson County Emergency Management Commission used the authority granted in Iowa Code 29C to implement a 600' no-wake emergency rule. The 600-foot no-wake restrictions were implemented on Big Spirit Lake and the Okoboji Chain on July 15. The Big Spirit Lake water level was at 15" (15.40') and the Okoboji chain of lakes were at 26" (6.20'). The lakes crested the following day (July 16) and the restrictions were lifted on August 2.

In anticipation of future high water events on the lakes of Dickinson County, the Emergency Management Commission developed a High-Water Plan. The plan was adopted on May 15, 2018. The plan was implemented shortly after adoption when June rains caused lake levels to rise. The 600-foot 5 mph rule was implemented on the Okoboji chain of lakes on June 26⁴ and on Big Spirit the following day⁵. An emergency

¹ Flooding prompts no wake ruling. (1993, July 8). Spirit Lake Beacon, p. 1.

² No wake rule extended. (1993, July 15). Spirit Lake Beacon, p. 1.

³ Rorholm, J. (1993, August 19). Boaters flock to lakes once no-wake lifted. Spirit Lake Beacon, pp. 1-5.

⁴ Emergency 600-foot 5 mph/No-Wake rule now in effect for some lakes in Dickinson County. (2018, June 26). Retrieved October 30, 2018, from <https://www.dcem.us/index.php/about/news/72-emergency-600-foot-5-mph-no-wake-rule-now-in-effect-for-some-lakes-in-dickinson-county>

⁵ Emergency 600-Foot 5 mph/No-Wake Rule Now In Effect for Big Spirit Lake, Little Spirit Lake in Dickinson County. (2018, June 27). Retrieved October 30, 2018, from <https://www.dcem.us/index.php/about/news/74-emergency-600-foot-5-mph-no-wake-rule-now-in-effect-for-big-spirit-lake-little-spirit-lake-in-dickinson-county>

meeting was held on July 3 to assess the situation and the Commission enacted a complete 5-mph rule for all lakes in Dickinson County⁶. This decision was made prior to lake levels reaching those established in the plan, but strong public concern and observations on shoreline erosion convinced the Commission to take action. A subsequent meeting on July 10 reinstated the thresholds established in the plan⁷. The 5-mph rule was lifted on East and West Lake Okoboji on July 11⁸.

Plan Update

Agency and community input from the high water experienced during the summer of 2018 were considered by the Commission in modifying the original plan. The High-Water plan was adjusted to incorporate enforcement concerns from the Iowa Department of Natural Resources, input from various lake associations, and local businesses. The Emergency Management Commission adopted the first revision to this plan on January 8, 2019.

Acknowledgement

The Commission fully understands the impact an emergency rule could have on local businesses and tourism revenue. This plan was developed through input from local leaders and communities to balance lake use with shoreline and infrastructure protection.

High water causes unnecessary erosion and bank collapses. High water events have the potential to cause millions of dollars in shoreline damage and impact water quality through increases sedimentation and increases in nutrient loading.

Websites

Big Spirit Lake Gauge: waterdata.usgs.gov/ia/nwis/uv/?site_no=06604000

Okobojis Gauge: waterdata.usgs.gov/ia/nwis/uv/?site_no=06604200

Dickinson County Emergency Management: www.dcem.us

⁶ Emergency 5 mph Rule Now In Effect on all lakes in Dickinson County. (2018, July 3). Retrieved October 30, 2018, from <https://www.dcem.us/index.php/about/news/78-emergency-5-mph-rule-now-in-effect-on-all-lakes-in-dickinson-county>

⁷ Emergency Management Commission meets to discuss lake levels and 5mph rule. (2018, July 10). Retrieved October 30, 2018, from <https://www.dcem.us/index.php/about/news/79-emergency-management-commission-meets-to-discuss-lake-levels-and-5mph-rule>

⁸ 72-hour period ends, lake-wide 5mph lifted on East & West Okoboji, 600-foot rule in effect. (2018, July 11). Retrieved October 30, 2018, from <https://www.dcem.us/index.php/about/news/archives/16-dcem/80-72-hour-period-ends-lake-wide-5mph-lifted-on-east-west-okoboji-600-foot-rule-in-effect>

Emergency 5-mph Rule Levels

An emergency 5-mph rule will go into effect for **ALL** lakes in Dickinson County when one of these lake gauges reaches the following water levels:

Lake	Emergency 5-mph Rule Implementation Level	Other Information		
		Weir Level	Ordinary High Water Mark	Record Level
Okoboji chain of lakes ⁹	26" (6.20') ¹⁰	0" (4.04')	30" (6.54')	55.9" (8.7') on July 17, 1993
Big Spirit Lake	22" (16.00') ¹¹	0" (14.15')	24" (16.15')	55.7" (18.8') on July 18, 1993

Historical Data and Comparisons

USGS gauging data from the past 53 years (1965-2018) indicates this emergency 5-mph rule would have been implemented four times: In 1984 for six days, 1993 for 116 days, 2011 for seven days, and 2018 for 22 days.¹²

Public Notification

The Emergency Management Commission will work in conjunction with the Iowa Department of Natural Resources to notify the public when emergency rules are in effect.

Methods will include signs at boat ramps, local radio and television stations, newspapers, websites, social media, and any available mass notification systems. In addition, the Commission will notify the Cities, and area Chamber of Commerce and tourism offices. The Commission will rely on these groups to help notify residents and visitors of the restrictions in place. The Commission will utilize these same methods of notification when any restrictions are removed.

⁹ Includes West Okoboji, East Okoboji, Upper Gar, Minnewashta, and Lower Gar.

¹⁰ As measured by the USGS gauge at Lakeside Lab.

¹¹ As measured by the USGS gauge at Marble Beach.

¹² USGS Water Data for the Nation. (n.d.). Retrieved October 30, 2018, from <https://waterdata.usgs.gov/nwis>

Exemptions

Emergency vessels responding to an emergency shall be exempt from the emergency 5-mph rule. These vessels include (but are not limited to) those belonging to any Law Enforcement Agency or Fire/Rescue Department. These vessels shall abide by the emergency 5-mph rule when not operating in an emergency response mode.

Enforcement

These restrictions shall be enforced by the Iowa Department of Natural Resources under Iowa Code 462A.12 *Prohibited operation*¹³.

Removal of Restrictions

The emergency 5-mph rule will be lifted when water levels fall below the implementation water level at both gauge sites for seventy-two (72) hours.

¹³ Water Navigation Regulations. (2017, December 22). Retrieved October 30, 2018, from <https://www.legis.iowa.gov/docs/code/462A.12.pdf>