NWS 1	FORM E-5	U.S. DEPARTMENT OF COMMERCE	HSA OFFICE:
		NOAA, NATIONAL WEATHER SERVICE	Grand Rapids, MI
			REPORT FOR (MONTH &YEAR):
			February 2005
MON'	THLY REPOR	_	
			DATE:
			April 12, 2005
TO:	O: NATIONAL WEATHER SERVICE (W/OS31)		
	HYDROMET	TEOROLOGICAL INFO CENTER	SIGNATURE:
	1325 EAST-V	WEST HIGHWAY, RM 13468	Daniel G. Houser, MIC
	SILVER SPR	ING, MD 20910	Mark L. Walton, Service Hydrologist
When no flooding occurs, include miscellaneous river conditions, such as significant rises, record low			
stages, ice conditions, snow cover, droughts, and hydrologic products issued (WSOM E-41).			
An <b>X</b> inside this box indicates that no flooding occurred within this Hydrologic Service Area.			

The flooding in February was carryover from the flooding that occurred in January.

#### **Flood Potential Outlooks**

The Hydrologic outlook in February indicated little potential for flooding due to snowmelt in our HSA, however the possibility of ice jams was mentioned.

### **February Flooding**

In early February, only one flood warning was still in effect for our HSA from the ice jam flooding that occurred in January, and it was for the Grand River in Robinson Township. At the beginning of February, river levels were still above flood stage on the Grand River in Robinson Township, but were falling and forecast to continue a slow fall. The river finally fell below flood stage on February 12<sup>th</sup>, 2005, however the ice jam was still in place. With the ice jam still in place there was some concern for the possibility of future flooding at ice break up. As a result, a flood watch was issued for the Grand River in Robinson Township due to the high river levels and the potential for significant river level fluctuations with the ice break up and potential reformation of ice jams. The flood watch was cancelled several days later when the ice broke up and moved out of the area which allowed for a continued slow fall of the Grand River in Robinson Township.

#### **February Precipitation**

February was wetter than normal across Southwest Lower Michigan. February precipitation totals at first order and contract stations across our HSA were above normal for Grand Rapids, Lansing and Muskegon, Michigan. February precipitation totals at Grand Rapids, Lansing, and Muskegon, were 2.54, 2.02, and 2.52 inches, respectively. Precipitation for the month at these three sites were 1.00 inch above normal at Grand Rapids, 0.57 of an inch above normal at Lansing, and 0.94 of an inch above normal at Muskegon, Michigan.

Snowfall totals for the month of February were above normal for Grand Rapids with 15.1

inches (+2.9") and Lansing with 11.1 inches (+0.5"), and below normal for Muskegon with 16.1 inches (-2.2"). Snow depth at the end of the month ranged from 4 inches at Grand Rapids and Lansing to 7 inches at Muskegon, Michigan.

## February Temperatures

Temperatures for the month of February were significantly above normal at Grand Rapids, Lansing, and Muskegon, with average monthly departures of +3.2, +4.2, and +3.7 degrees Fahrenheit, respectively. At Grand Rapids the soil temperatures at the end of the month were 28 degrees near the surface and 36 degrees Fahrenheit at a depth of 60 inches. At WFO GRR frost depths were around 7 inches at the end of the month.

# February River Levels

River levels across the Grand Rapids HSA by the end of February were near normal and rivers were ice free.

## **Hydrologic Products issued this month:**

- 1 Hydrologic Outlook (ARBESFGRR) was issued
- 9 Flood Watches (ARBFFAGRR) were issued
- 26 Flood Statements (ARBFLSGRR) were issued
- 22 Hydrologic Statements (ARBRVSGRR) were issued
- 28 Hydrologic Summaries (ARBRVAGRR) were issued