State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
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Oshkosh, WI 54901-9731

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July 22, 2019 WIC-NE-2019-71-01905

James Sturgis
1740 Oakridge Road
Neenah, WI 94956

RE: Wetland Determination Results for property located in the NE1/4 of the NE1/4 of Section 30, Township 20 North, Range 17 East, Town of Neenah, Winnebago County

Dear Mr. Sturgis:

On June 27, 2019, Allison Willman conducted a wetland determination at the above mentioned property. According to the request form you sent us, the reason for the wetland determination was to identify any wetlands located in the area in which you are hoping to fill.

Approximate wetland boundaries were identified following 1987 Wetland Delineation Manual and applicable regional supplement guidelines. Wetlands are defined by the 1987 Wetland Delineation Manual as areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. If any wetland areas were detected, their approximate boundaries were sketched onto an aerial photograph (see attached map).

Methods used to detect the presence of wetlands within the project area involved on-site and off-site techniques, including a field visit as well as a review of antecedent hydrologic conditions, recent aerial photography, Wisconsin Wetland Inventory (WWI) mapping, pertinent County Soil Survey mapping, and a Farm Service Agency (FSA) Slide Review.

The following is a summary of the off-site review.

- Results of the antecedent hydrologic condition review indicate the site was likely experiencing abnormally wet conditions at the time of the field investigation.
- The WWI has a wetland point mapped in the reviewed area.
- Soils mapped in the project area include the somewhat excessively drained Casco loam, 2 to 6 percent slopes (CeB) series. CeB soils are classified as non-hydric (wetland) soils and are located throughout the reviewed site.

Based on the data analyzed for the off-site review, as well as the field conditions observed during the June 27, 2019 field review, **one wetland is located in the reviewed area**. The following is a summary of the wetland found within the reviewed area.

Wetland 1 is an excavated pond with an emergent marsh fringe located in the eastern part of the reviewed area. Dominant vegetation includes northern water plantain (*Alisma triviale*), softstem bulrush (*Schoenoplectus tabernaemontani*), and reed canary grass (*Phalaris arundinaceae*).

Problematic soils were observed within the wetland due to historic excavation that created the feature. Evidence of wetland hydrology observed within Wetland 1 included standing water to 10-inches, geomorphic position, saturated soils to the surface, a high-water table, and a dominance of wetland vegetation species.

The upland areas were distinguished by an obvious and steep topographic break. No wetland hydrology indicators were observed, and the soils indicated upland conditions and were likely previously filled. The vegetation was dominated by Queen Anne's Lace (*Daucus carota*), American red raspberry (*Rubus ideaus*), and giant goldenrod (*Solidago gigantea*). For further information on the data collected on-site, please refer to the enclosed Wetland ID Field Investigation Form.

Artificial Wetland Exemption Request

According to 281.36 (4n), State Statutes, a landscape feature where hydrophytic vegetation may be present as a result of human modification to the landscape or hydrology and for which no definitive evidence exists showing a prior wetland or stream history before August 1, 1991, may be exempt from state wetland regulations. The following types of artificial wetlands cannot be exempted from state wetland regulation:

1) a wetland that serves as a fish spawning area or that is passage to a fish spawning area and;
2) a wetland created as a result of a wetland mitigation requirement.

In addition, DNR must also consider whether the artificial wetland is providing significant flood protection to adjacent or downstream properties and infrastructure, and/or significant water quality functions to adjacent or downstream water bodies.

The Department reviewed the following materials to aid in our exemption determination:

- The request narrative
- Historic Maps, including the Original Land Survey Plat, Bordner Survey, the USGS topographic Quad map from 1961, and soil mapping.
- Aerial photographs, including the 1938 era photograph, a pre-construction photograph, and a post-construction photograph.
- Site photographs that show different angles and views of the wetland

Feature Review

According to correspondence with Mr. Sturgis, this feature was historically excavated within an upland area as a stone quarry. A review of the 1937 aerial photograph clearly shows the area of Wetland 1 under excavation activities (Figure 1, below). The historic government land survey notes did not describe a wetland within this area. The USGS Topographic Quad Map from 1975 depicts the feature as a pond associated with a gravel pit. The NRCS soil survey has a mapped upland soil series (Casco loam) throughout and surrounding Wetland 1. Therefore, there is no definitive evidence of wetland history within the excavated pond portion of Wetland 1.

Stormwater Review

The flood protection and water quality capacity of Wetland 1 was reviewed on-site and over desktop. A culvert was located during the on-site field review on the north side of Wetland 1 that flows under Oakridge Road and into a larger wetland complex to the north. The size of the culvert and extent of the wetland complex appeared to be large enough to handle the excess of water

from the historic excavated pond. However, Mr. Sturgis was informed that the drainage channel and wetland areas to the east of the excavated pond could not be filled due to their function in draining this water off-site an away from neighboring properties.

Fisheries Management

According to correspondence with Adam Nickel and Kendall Kamke, DNR Fisheries Management staff out of the Oshkosh office, there are concerns that the Wetland 1 pond may be utilized by northern pike as a spawning area. DNR is looking to conduct a study within the ditch and open water areas north of Wetland 1 and Oakridge Road during the spring of 2020 to determine if the pike travel upstream enough into this area to spawn. The conclusion as to whether or not these fish do use Wetland 1 as a spawning area will ultimately be determined from the results of the study.

Figure 1: View of the excavated quarry areas from 1937 that now exist within the limits of Wetland 1

Conclusion:

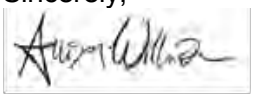
Based upon the information provided above, the excavated pond portion of Wetland 1 lacked wetland history prior to August 1, 1991 and contained clear human influence from its historic excavation as a stone quarry. However, this feature may be providing spawning habitat for northern pike fish. Therefore, Wetland 1 cannot be exempted at this time. This feature has been highlighted on an enclosed figure below. NOTE: If the results of the proposed 2020 northern pike study reveal that the fish are **not** using this feature for spawning, then the pond portion of Wetland 1 is eligible for exemption. Furthermore, the eastern portion of Wetland 1 that contains emergent marsh conditions, along with the channel leading out to the culvert crossing Oakridge Road is not considered exempt under this request due to its function in providing a drainage pathway.

The wetland boundaries depicted on the associated field sketch are approximate only and may not be appropriate for design purposes, such as set-back or permit requirements. If wetlands are

located on your property, we recommend that a wetland delineation be conducted on your property by a qualified wetland delineator. Wetlands are regulated by various state, federal, and local units of government. Prior to conducting any activities in or around wetlands, we recommend you contact the appropriate staff from Wisconsin Department of Natural Resources, U.S. Army Corps of Engineers and Winnebago County.

If you have any questions, please contact me at (608) 235-2057 or email Allison.Willman@wisconsin.gov.

Sincerely,

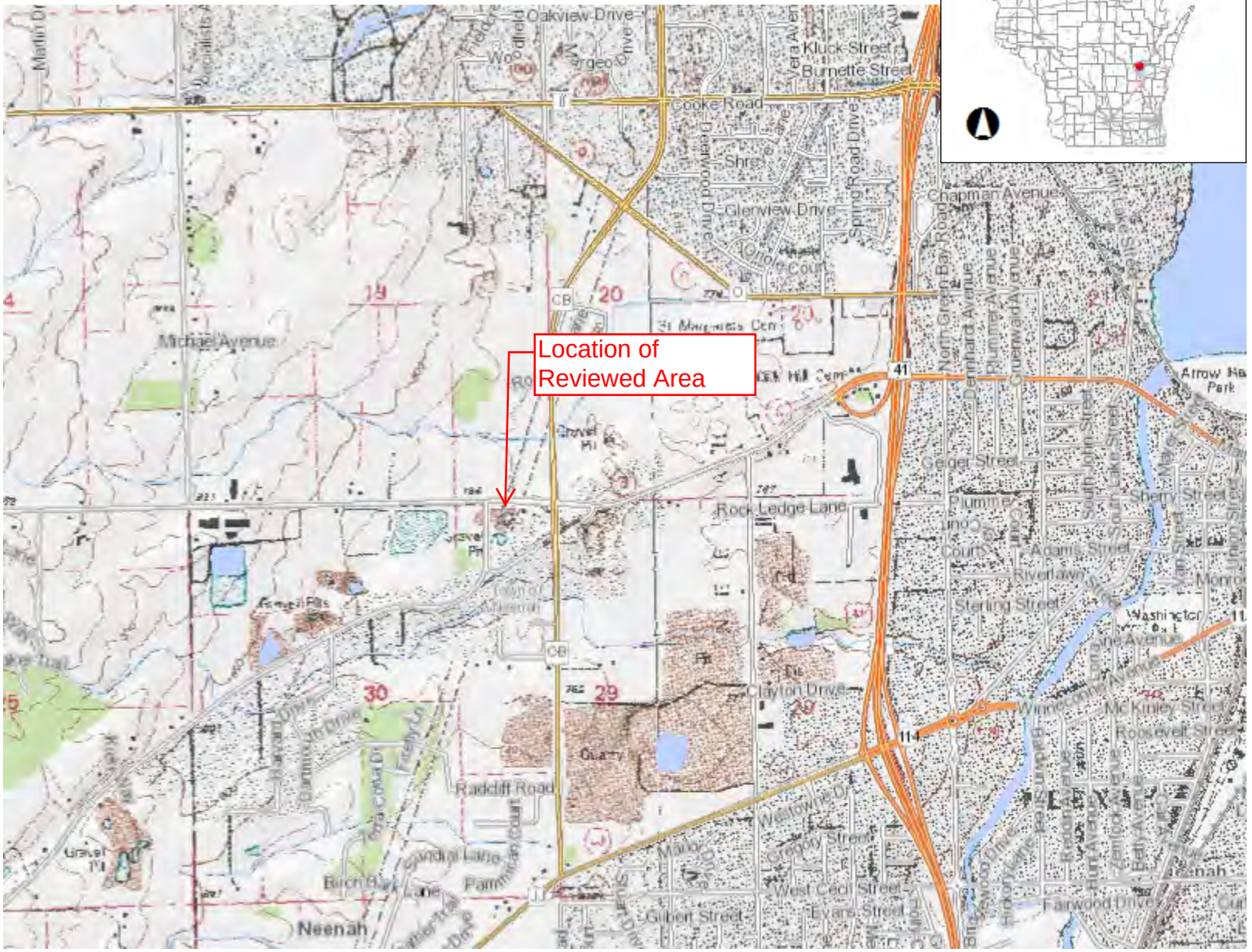


Allison Willman
Wetland Identification Specialist

Enc. Project Location/Topography
Field Sketch
Wetland Exemption Sketch
WWI & Soil Survey Mapping
Photo Log
Wetland ID Field Investigation Form
Antecedent Precipitation Analysis

cc: Ryan Huber, U.S. Army Corps of Engineers
Winnebago County Zoning
Ryan Pappas, DNR Water Management Specialist
Adam Nickel, DNR
Kendall Kamke, DNR

Topographic/Location



Legend

- Municipality
- State Boundaries
- County Boundaries
- Major Roads
  - Interstate Highway
  - State Highway
  - US Highway
- County and Local Roads
  - County HWY
  - Local Road
- Railroads
- Tribal Lands
- Rivers and Streams
- Intermittent Streams
- Lakes and Open water
- 24K USGS Quad Index - Level 7 - 16
- Index to EN_Image_Basemap_Leaf_Off

Notes

0.8 0 0.38 0.8 Miles

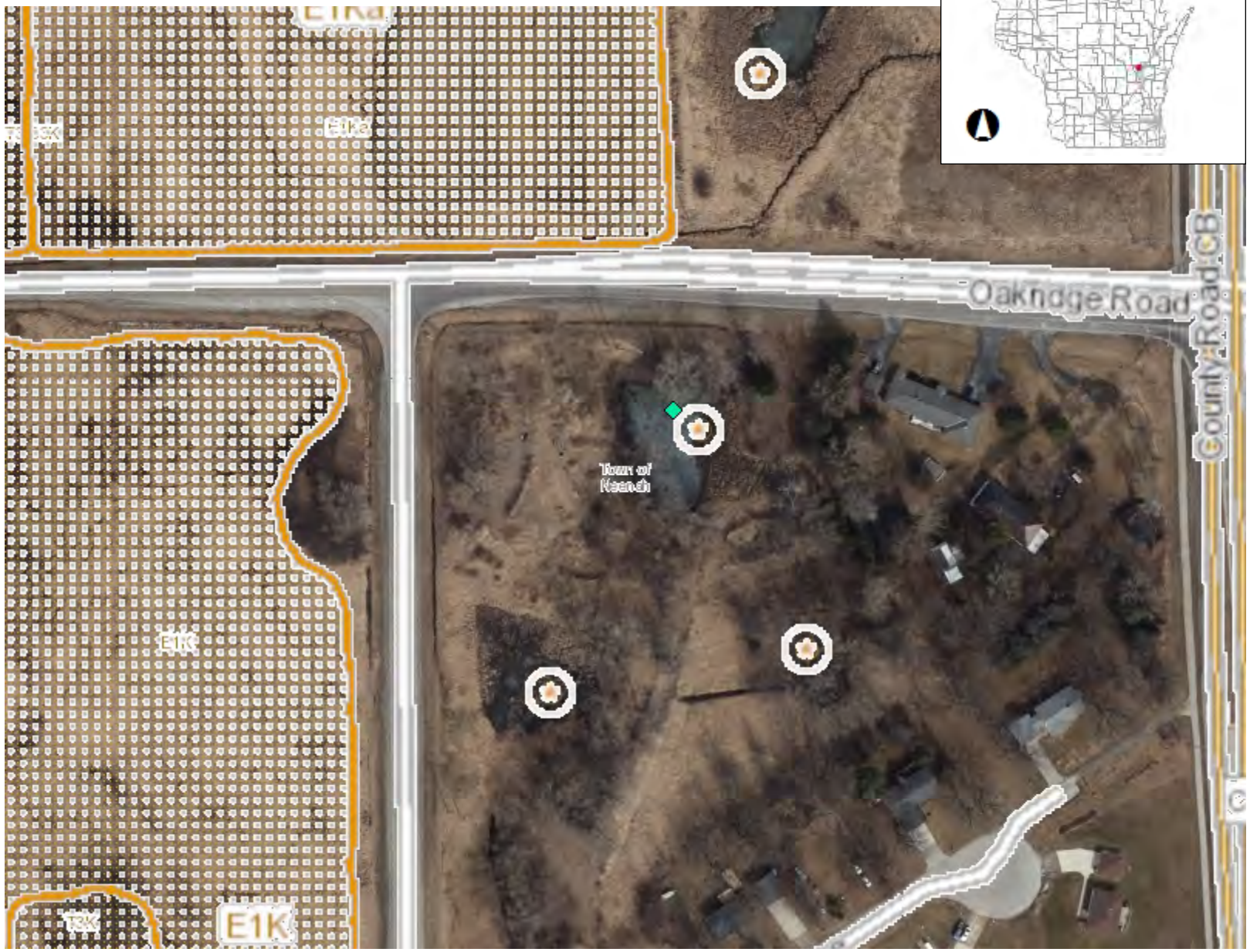
NAD_1983_HARN_Wisconsin_TM

1: 23,760

Allison P. Willman
Field Sketch - 1740 Oakridge Road, Neenah, WI
June 27, 2019

Allison P. Willman
Exemption Request for 1740 Oakridge Road, Neenah, WI
June 27, 2019

Surface Water Data Viewer Map



Legend

- Wetland Identifications and Confirmations
- Wetland Class Points
  - Dammed pond
  - Excavated pond
  - Filled excavated pond
  - Filled/drained wetland
  - Wetland too small to delineate
- Filled Points
- Wetland Class Areas
  - Wetland
  - Upland
- Filled Areas
- Wetland Class Points
  - Dammed pond
  - Excavated pond
  - Filled excavated pond
  - Filled/drained wetland
  - Wetland too small to delineate
- Filled Points
- Wetland Class Areas
  - Wetland
  - Upland
- Filled Areas
- Intermittent Streams
- 24K Hydrography Streams and Rivers
- 24K Hydrography Lakes and Open Water
- Municipality
- State Boundaries
- County Boundaries
- Major Roads
  - Interstate Highway
  - State Highway

Notes

0.1 0 0.03 0.1 Miles

NAD_1983_HARN_Wisconsin_TM

1: 1,980

Wetland ID – Sturgis Property 6/27/2019, By: Allison P. Willman

Photo 1: View Wetland 1 pond feature facing southeast.

WETLAND IDENTIFICATION FIELD INVESTIGATION FORM

Inspected By:	Date of Field Review	Weather Conditions	Docket Number
Allison P. Willman	June 27, 2019	77°, Sunny	01905

LAND OWNER INFORMATION

Name of Property Owner	Street Address
James Sturgis	1740 Oakridge Road
Phone	**City, State, Zip Code**
920-725-1055	Neenah, WI 94956
County	**Legal Description**
Winnebago	Sec 30, T20N, R17E

Reason for Project (Future Development, Building Expansion, Conservation Activities, Construction, etc.)
Looking to fill excavated quarry pit

Wetlands Located in the Project Area (Y) N (Circle One)	Total Number of Wetlands in Project Area
	1

SITE SPECIFIC INFORMATION

Wetland ID: Wetland #1

Identified on the following resources?
- ___ USGS Topographic Map
- X WWI
- X Aerial Photographs
- ___ FSA Slide Review
- (# of normal years with wetness signatures ___)

Dominant Wetland Vegetation
Community Type(s) and Dominant Species:
Herb
Alisma triviale - 10%
Scirpus cyperinus - 5%
Schoenoplectus tabernaemontani - 5%
Phalaris arundinacea - 5%
Bidens frondosa - 2%
Scirpus fluviatilis - 2%

Dominant Upland Vegetation
Community Type(s) and Dominant Species:
Herb
Daucus carota - 30%
Poa pratensis - 10%
Rubus idaeus - 25%
Phalaris arundinaceae - 10%
Solidago gigantea - 25%
Frangula alnus - 5%

Wetland Soils
Mapped Soil Unit(s): Casco loam, 2 to 6% slopes
Hydric Soil Indicator(s) Observed (Check here if none ___)
(List all observed)
- 0-5" - 10YR 3/1 sand/gravel
- 5" - Refusal from rock

Adjacent Upland Soils
Mapped Soil Unit(s): Casco loam
Hydric Soil Indicator(s) Observed (Check here if none X)
(List all observed)
- 0-6" - 7.5YR 3/2 loamy sand
- 6-12" - 10YR 3/4 sandy clay loam w/ 30% cobble
- 12" - Refusal

Wetland Hydrology (Indicators, permanence, observations, etc.)
standing water at 10"; geomorphic position.

Adjacent Upland Hydrology (Indicators, permanence, observations, etc.)
No primaries or secondaries

Notes (approximate location, unique observations, etc.)
The wetland consists of an excavated pond from an historic quarry. A shallow mixture of sand and gravel was present over the bedrock. The topographic line seperating it from the upland was steep and distinct.

NRCS method - Rainfall Documentation Worksheet Hydrology Tools for Wetland Determination
NRCS Engineering Field Handbook Chapter 19

Date	6/27/2019	**Landowner/Project**	Sturgis
Weather Station	Oshkosh	**State**	Wisconsin
County	Winnebago	**Growing Season**	18-Apr
Photo/obs Date	6/27/2019	**Soil Name**	Casco loam

shaded cells are locked or calculated

Long-term rainfall statistics (from WETS table or State Climatology Office)

	Month	30% chance <	30% chance >	Precip	Condition **D**ry, **W**et, **N**ormal	Condition Value	Month Weight Value	Product of Previous 2 Columns
1st Prior Month*	June	2.27	4.43	5.11	W	3	3	9
2nd Prior Month*	May	1.87	3.57	4.46	W	3	2	6
3rd Prior Month*	April	2.01	3.41	3.35	N	2	1	2
							Sum	**17**

*compared to photo/observation date

Note: If sum is	
6 - 9	prior period has been drier than normal
10 - 14	prior period has been normal
15 - 18	prior period has been wetter than normal

Condition value:
Dry =1
Normal =2
Wet =3

Conclusions: **prior period has been wetter than normal**