

Eau Claire River Blockage Report

10/31/2017



Safe. Reliable. Dedicated.

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Eau Claire River Blockage Report

Eau Clair River Blockage Report

10/27/17

Introduction

This report was conducted for Daniel Guild, Village of Weston Administrator, in response to complaints made from the community regarding limited/restricted access while floating down the Eau Claire river. Initial contact regarding the blockage issue with Timber Harvesting Solutions LLC was on 10/06/2017. The river survey took place on 10/26/2017, during fall weather conditions. Water levels were at below average heights based on bank height shown. The survey timing was conducted and agreed upon by, the Village of Weston and Timber Harvesting Solutions LLC to show the most possible timber blocking the river when the water levels are at the lowest possible.

This report will provide detailed information regarding the blockages found during the survey. This information and any/all attachments may be to be used for further discussion's and decisions within and only with, the Village of Weston staff and Timber Harvesting Solutions LLC. Any third parties may request permission to examine, read and use the information within the report by; in writing, and with the written approval from both, the Village of Weston and Timber Harvesting Solutions LLC. Contact information of both parties are listed at the end of this report.

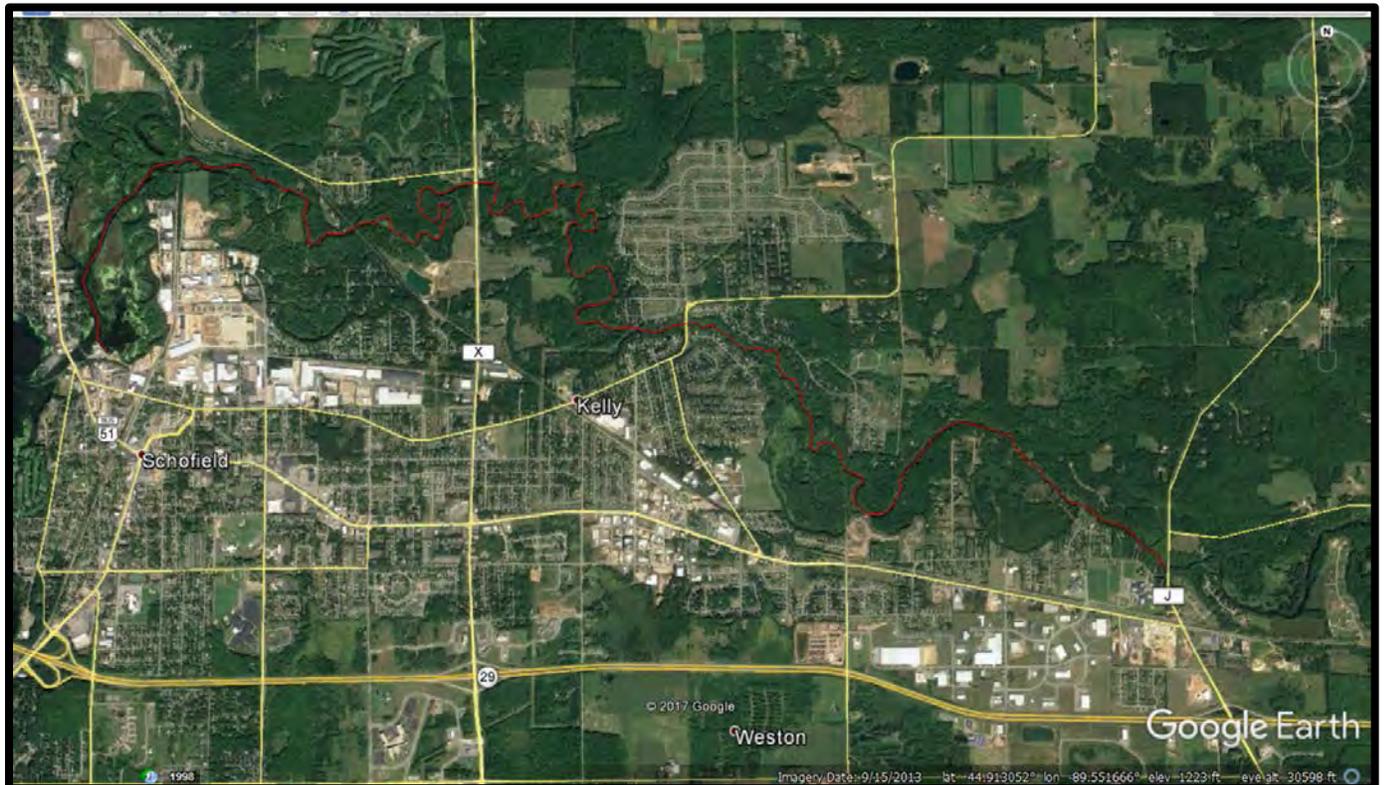
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Survey Route

Below are the maps of the entire area surveyed for fallen timber in the Eau Claire River system. The survey of the Eau Claire river total 10.53 miles of river. This section is from County Hwy J river crossing (East limit) to the Schofield Dam (West Limit) (See map A). The second map is an overview of the route as it was being “tracked” or “recorded” with a G.P.S. system (See Map B).

MAP A:

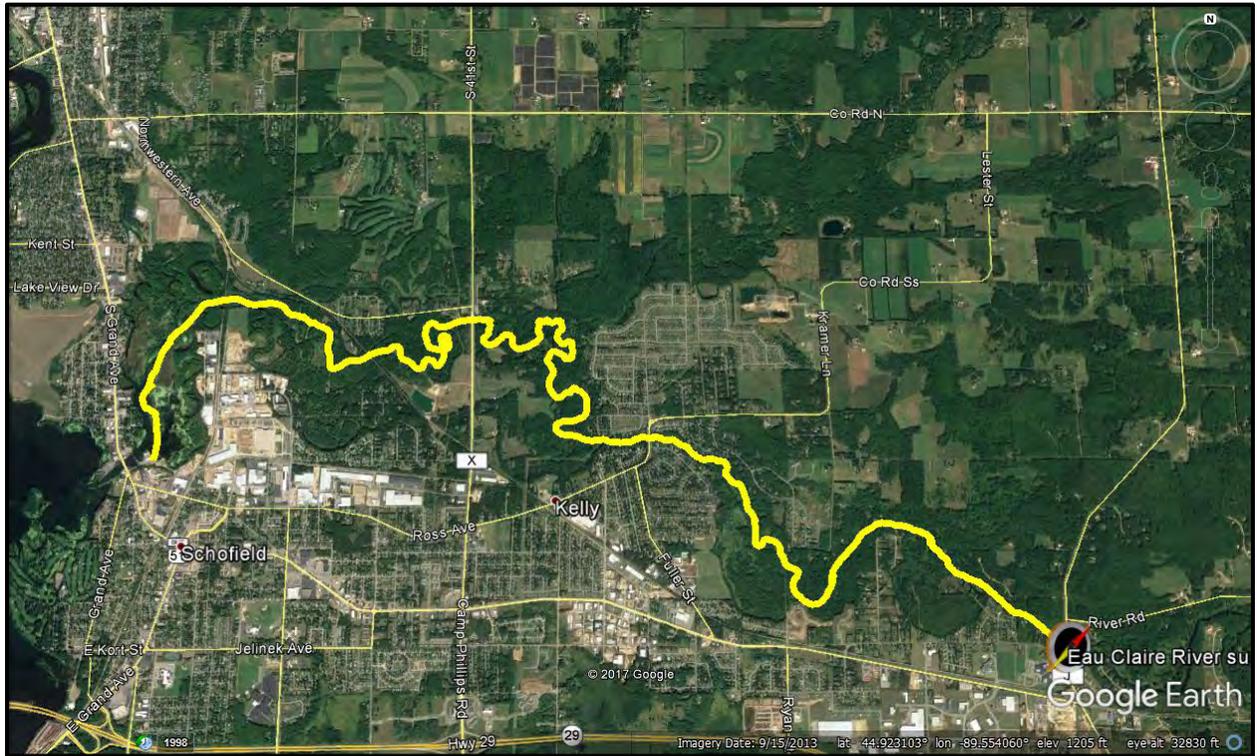
Red=Survey route, total distance 10.86 miles



Source: Google Earth;2017

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Map B: **Yellow**= Actual "Tracked" Survey Route, Source: Google Earth;2017, Total Distance is 10.53 miles



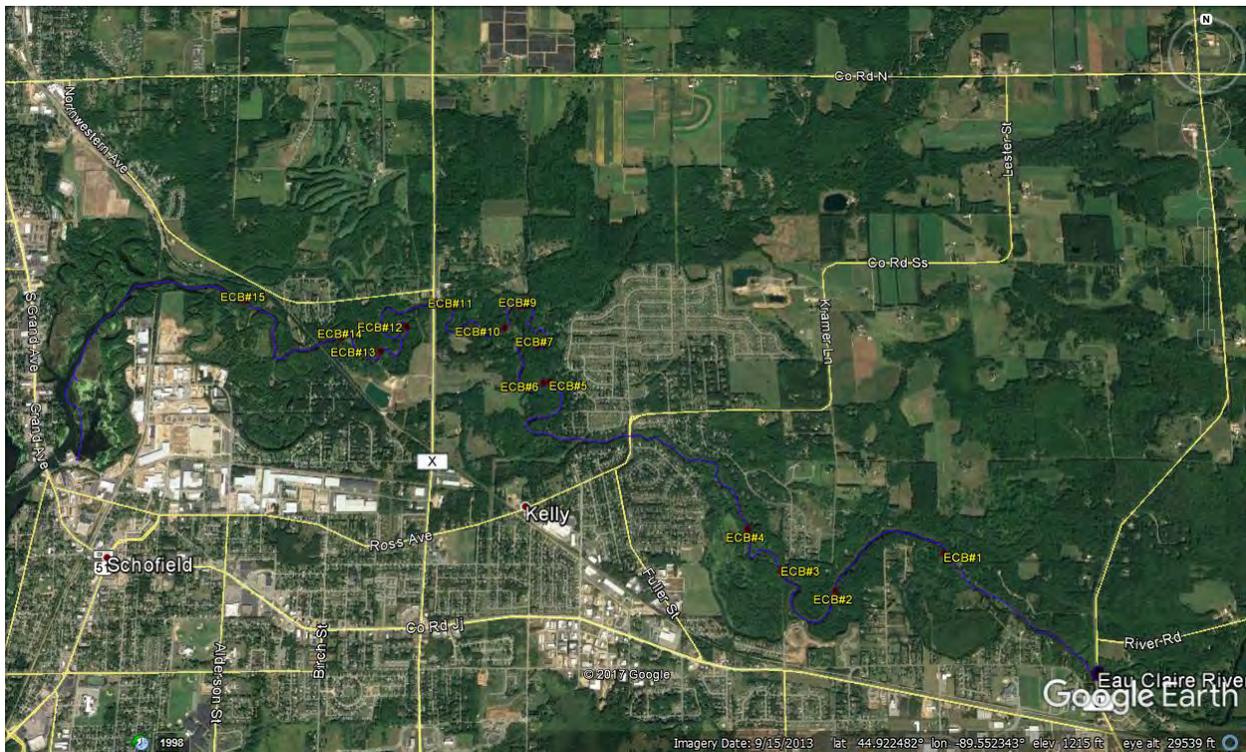
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Blockage Map

Below is the overview map showing each blockage location. Each blockage is labeled “ECB#1-15.” “E.C.B” is the abbreviation for “Eau Claire Blockage”, followed by the site number. There are fifteen total blockages currently in place on the Eau Claire river system in the surveyed areas defined above. This does not include any side current sections, or alternate routes that navigate when water levels are high. Please refer to this page while reviewing the next report section titled “Individual blockages”, to aid in referencing.

****Please note, due to water damage to our camera, pictures of blockages for ECB#11 through ECB#15 are not available. However, each site was marked accordingly, and field notes were taken. Diagrams have been created to still provide some insight of the size of the blockage. Timber Harvesting Solutions LLC apologizes for the inconvenience.

Blockage Map:



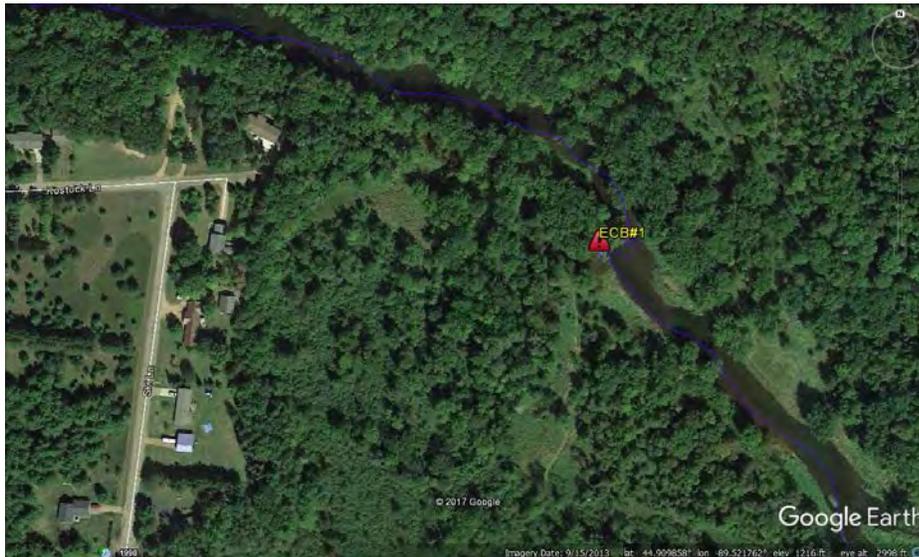
Source: Google Earth;2017, Total blockages=15

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Individual Blockage Review

The following section of the report is a review of each blockage. Field notes will include a picture of the blockage, severity of size, enlarged location map and recommended future removal outline (in red) and main channel current (in blue). Due to surveying conditions, some pictures are of less quality. At each site, each blockage uses a simple tagging method. Each site was marked with an orange ribbon and a tail length of one or two feet. The ribbon was placed directly on the blockage to see the blockage from a further distance away. Some of the picture have the ribbon already marked, and some will not have a ribbon in the picture, however are marked on site.

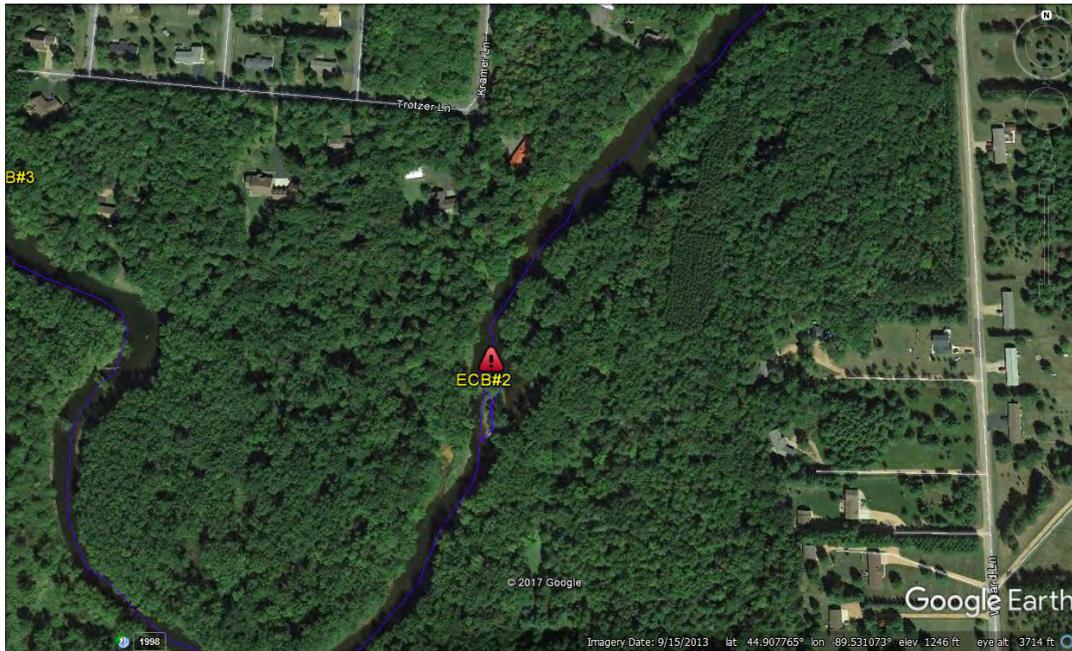
ECB#1



Blockage severity: High, hung up on an island, complete blockage and had to portage around Recommend removal of top 30 feet of trees.

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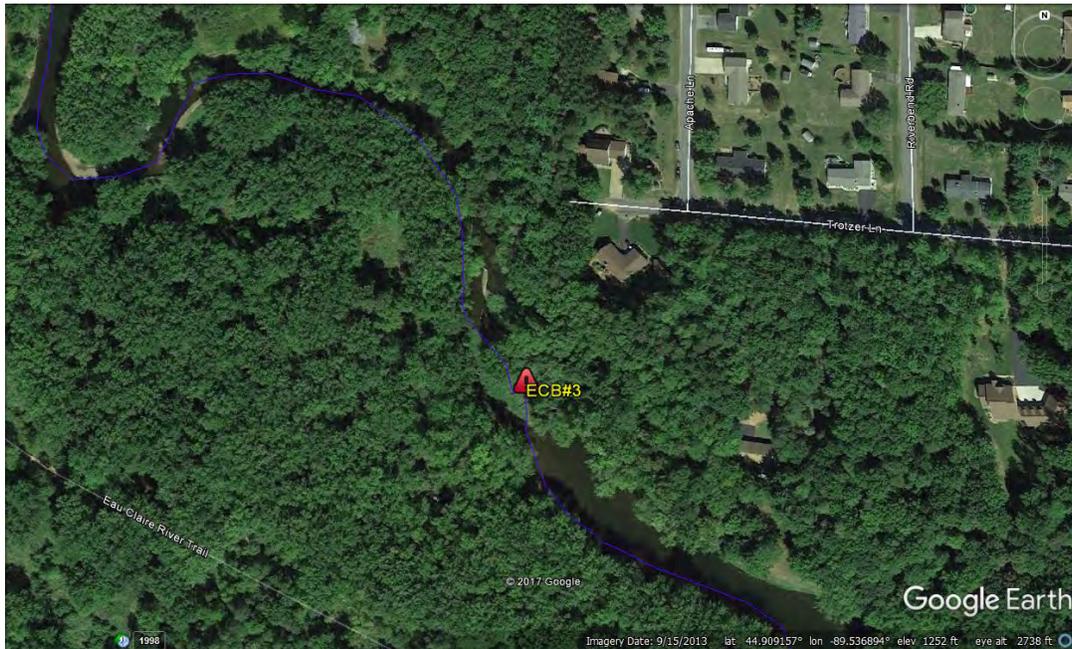
ECB#2



- Blockage severity: Low. Single branch hanging into channel. Recommend removing top 20' of branch.

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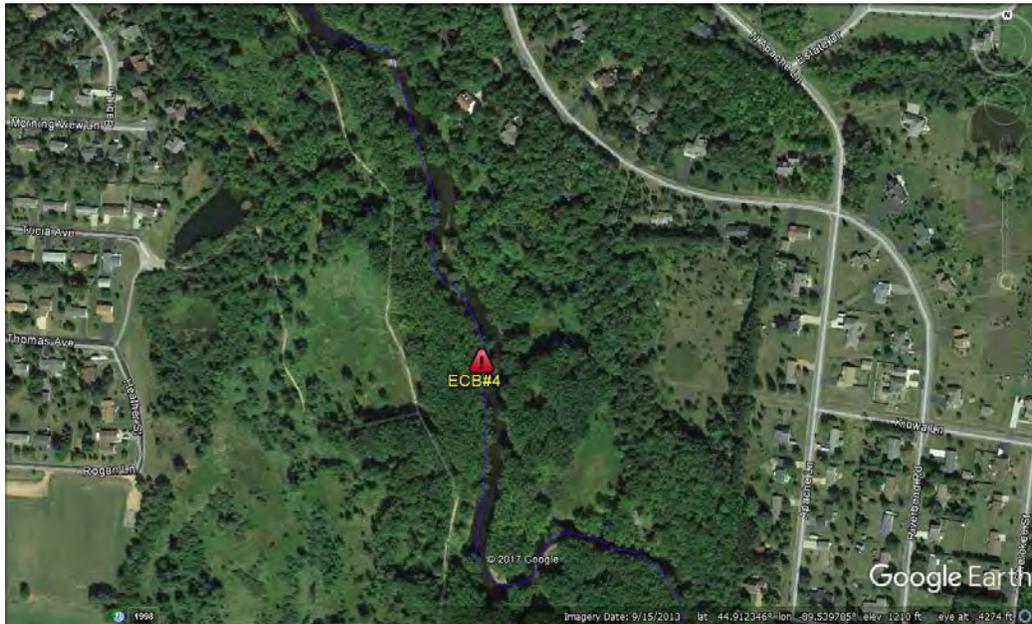
ECB#3



Blockage severity: Low, over hanging lowest branch will restrict channel once water levels rise. Recommend removing lowest branch atleast, or removal entire tree.

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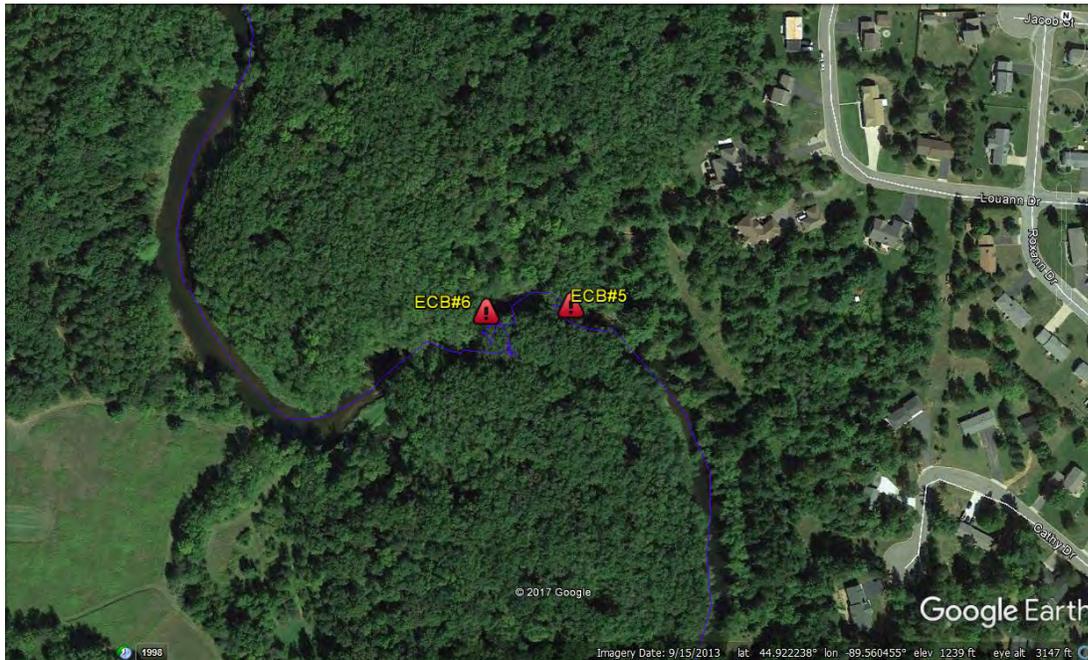
ECB#4



Blockage Severity: low, double hanging branch into channel. Recommend cutting top 20 '

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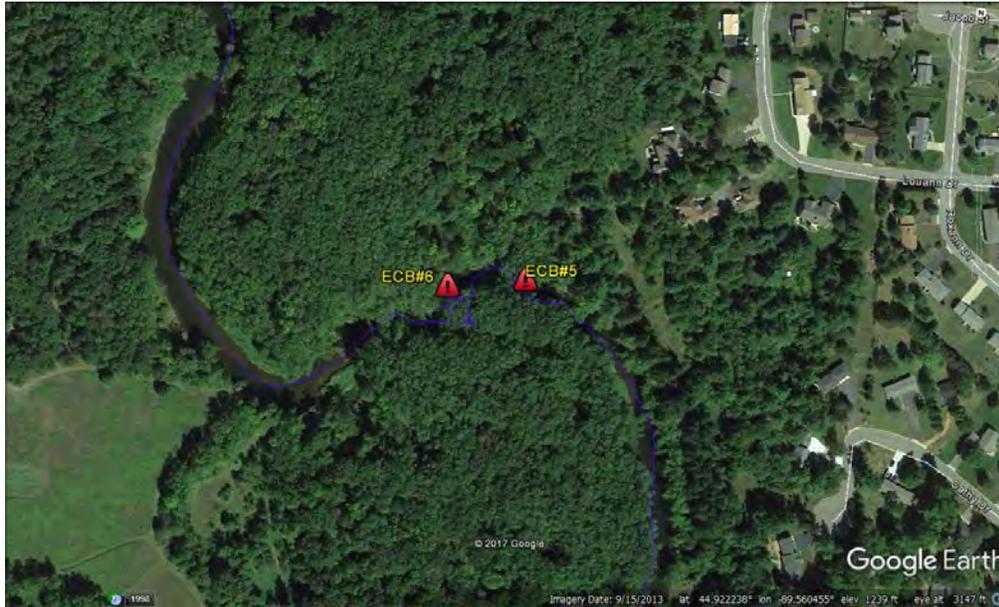
ECB#5



Blockage Severity: High, Multiple trees in the river across channel. Alternate channel goes to the left (orange), but blocked as well (ecb#6). Recommend removing at least tops of trees. To open a 15' wide channel.

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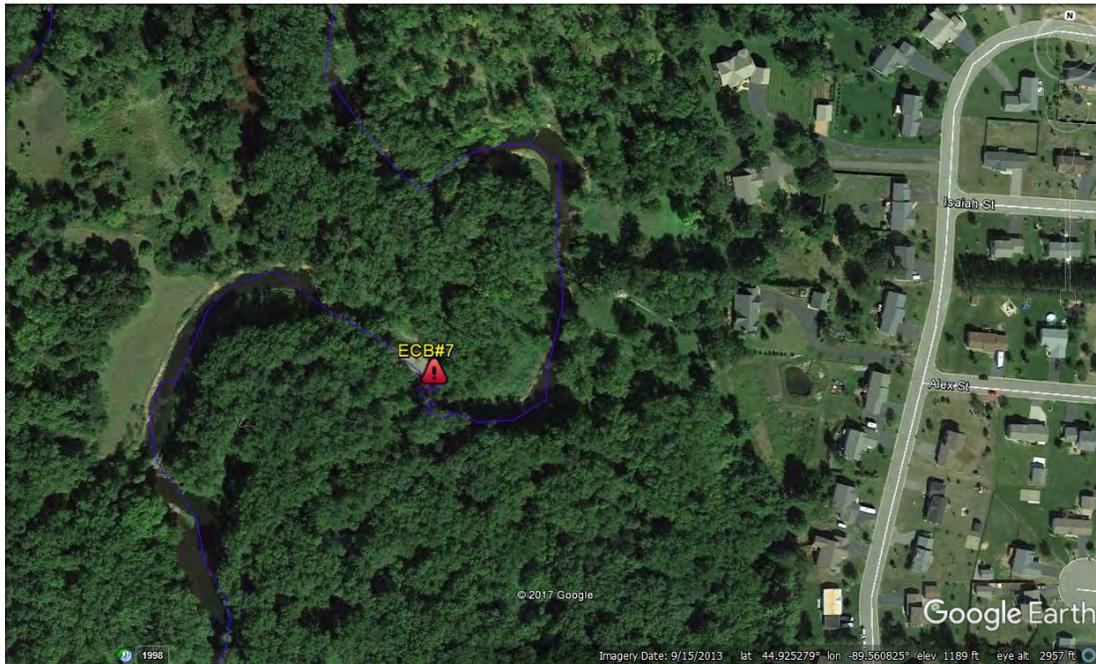
ECB#6



Blockage Severity: Medium, Tree branches exposed above and below water level, channel is wide enough to go around, however boats will possibly hit submerged branch (brown).

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ECB#7



Block severity: medium, Split in channel. Right fork blocked by single branch hanging into channel. Left fork Completely blocked by multiple tree tops (behind the standing trees). Recommend removing both fork blockages.

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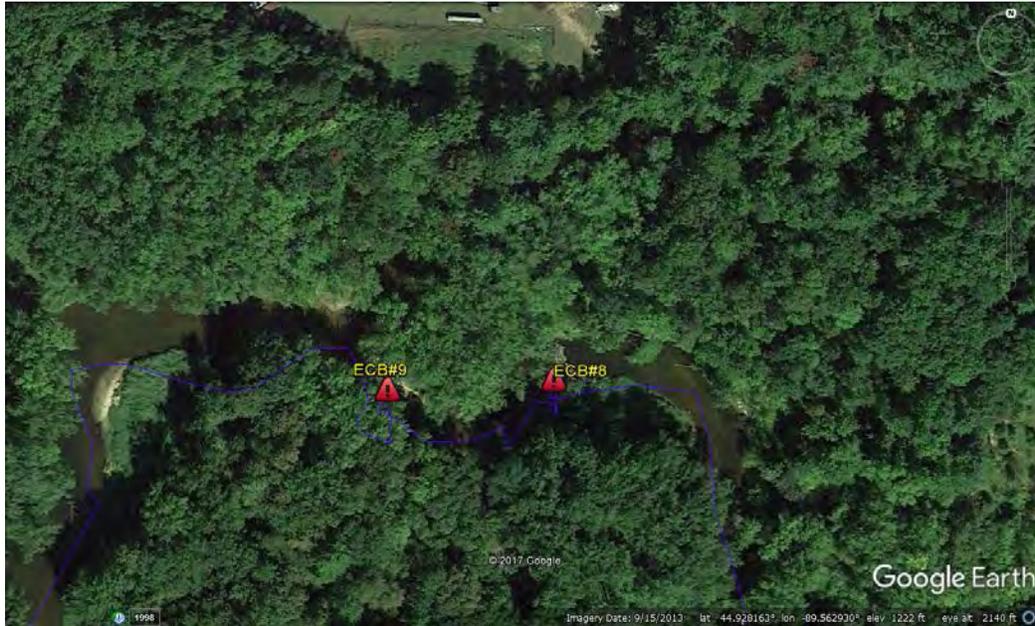
ECB#8



Blockage severity: Medium, 3 branches hanging into channel. Will block most of channel when water rises. Recommend removing all 3 branches.

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ECB#9



Blockage severity: Medium, 2 branches hanging into center of channel. Recommend removal of 15' off top.

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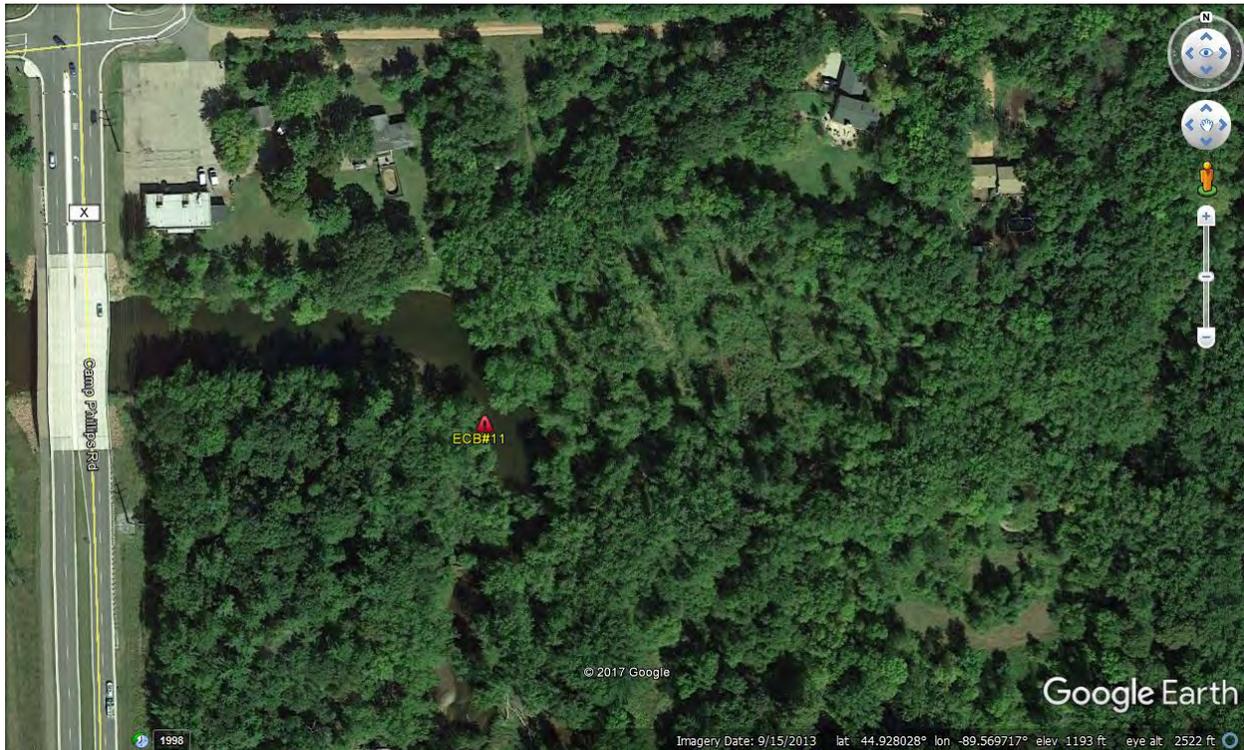
ECB#10



Blockage Severity: Medium, submerged branches. Can get around, but difficult. Recommend 15' top cut

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ECB#11



Picture Not Available

Blockage Severity: Medium

Single hanging tree, blocks half of channel but room to go around if needed. Tree is 3' above water level.

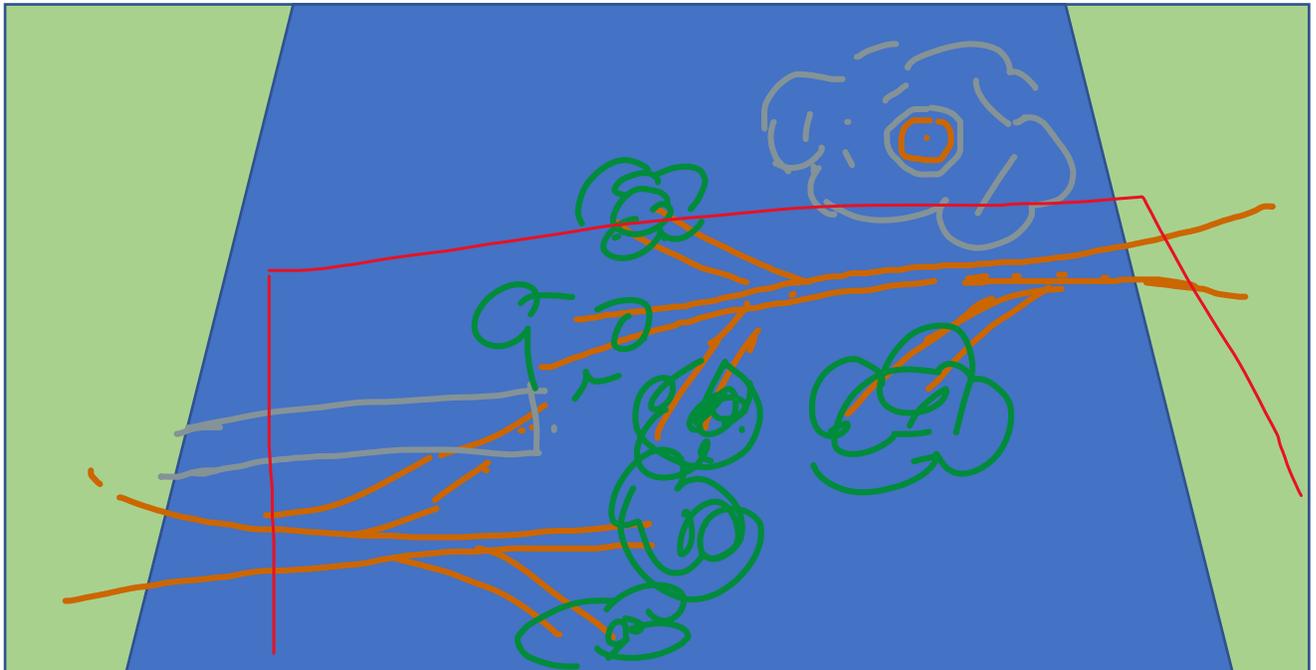


Eau Claire River Blockage Report

ECB#12



Picture not Available



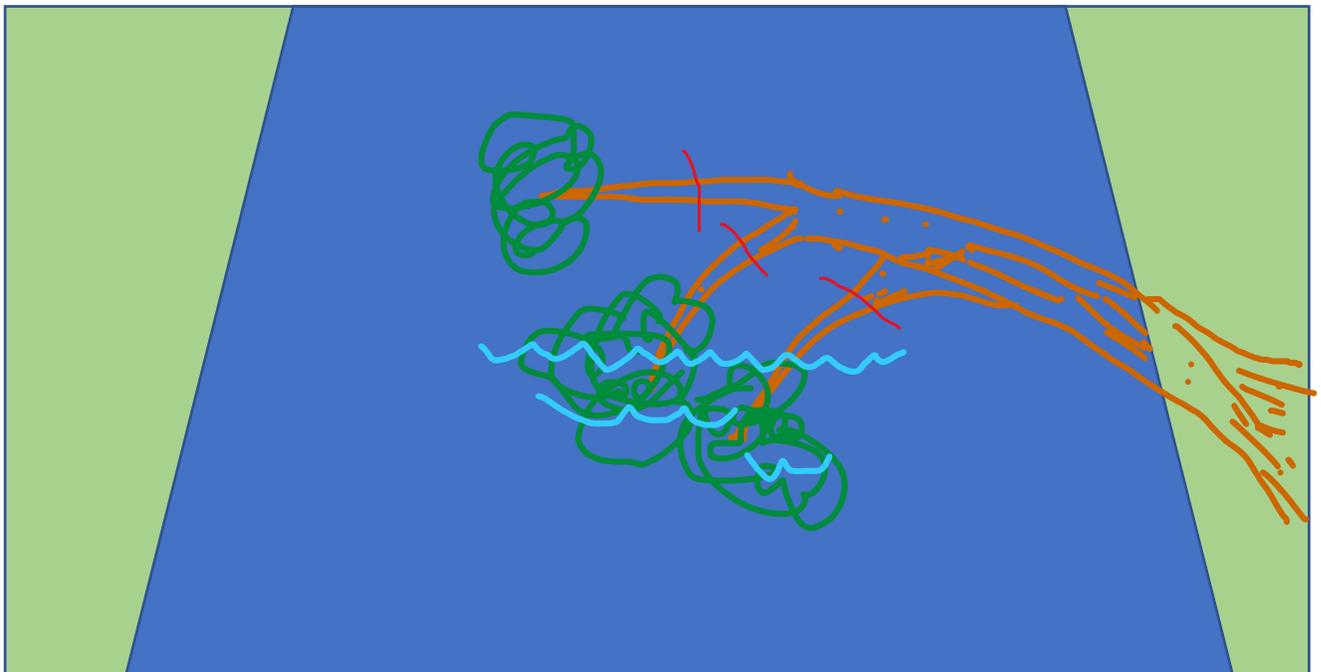
Blockage Severity: High, Multiple trees and old blockages tied together. Recommend removal of all timber back to shore lines.

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ECB#13



Picture not available



Blockage Severity: Low, 1 single tree, hanging over channel, branches are only touching water. Room to go under or around. Recommend trimming up branches.

Eau Claire River Blockage Report

ECB#14



Picture not available



Blockage Severity: Medium, 2 trees that hang close to water level, but are not blocking channel. Recommend cutting back limbs to maintain open channel when water levels are higher.

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ECB#15



Blockage Severity: High, Multiple trees down across channel. Old blockages have drifted and tangled into branches causing blockage to increase in size. Larger log under water extends from bank 20 feet. Recommend cutting out all timber, including submerged log. This will open channel up to 20 feet.

Picture not available



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Solutions for the Village

Historically logging in water conditions has taught us to take extreme measures to protect the safety of the logger, equipment and environment. This job should be managed and carried out with the same “safety first” mind-set. Timber Harvesting Solutions LLC has the experience and knowledge when working in several, non-traditional, conditions that most logging or tree removal companies will never attempt. The traditional logging methods will not apply in the removal of the blockages and, most importantly, the safety aspects that must be considered.

During this report Timber Harvesting Solutions LLC has made **our** recommendations per blockage site. These recommendations are based on our capabilities to do the work safely and based on our experience of water work in river systems.

The current water levels and conditions will aid with the removal of the blockages. The lower water levels will allow loggers to work in the water safer than working from a moving watercraft. Timber Harvesting Solutions LLC will accomplish the tasks by wearing waders, for most of the sites. Other sites in deeper sections will require more safety precautions to be taken.

At sites that the water is too deep to work in while standing, Timber Harvesting Solutions LLC will be working out of smaller watercraft. This watercraft be anchored upstream from the blockage, and side anchoring from the shore to prevent side to side drifting. This will allow the watercraft to track in the current of water correctly without the risk of tipping or uncontrolled movement. Once the watercraft is secured safely, the cutting can begin.

When cutting timber in moving water, the logger must know how to properly manipulate each piece. Timber Harvesting Solutions LLC looks at several factors prior to cutting. First, the order, correct size and removal location of timber to cut will be analyzed. We will use portable winches to drag the blockages out of the water to higher land then cut into appropriate sections. Second, there are sections that will have to be rigged and controlled before cutting into small pieces due to the height from the water or to prevent an entire tree or log from floating down stream before being cut into smaller pieces. If there are blockage sections that cannot be winched, we will be cutting all pieces into 2' less pieces of size to reduce the risk of creating a different blockage downstream.

Finally, Timber Harvesting Solutions LLC uses safety precautions to prevent to spill or contamination of gas or oil into the river system. We accomplish this by having every bottle of gas and oil with spill and leak proof type nozzles. We also use a biodegradable bar oil, that is not petroleum based, made from vegetable based products. All our containers are kept in sealed floating containers while not being used while on the water.

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Conclusion

When looking at the entire section of Eau Claire river that was surveyed, Timber Harvesting Solutions LLC found more blockages than previously expected. The 10.5-mile route currently has 15 blockages, but could change daily depending on the weather conditions and water levels. As the survey was being conducted, you can also see that there are several pieces of timber loosely laying near shorelines that had settled when the water levels went down. There is a great chance that during the spring water run-off, that these timber pieces will be picked up and carried downstream, creating a completely different blockage than found in the survey.

The time required to remove all blockages, depends on the decisions of the Village. From the logging perspective, to do all the work outlined in this report may take up to 2 weeks to accomplish. There are several unforeseen factors that can change the whole removal process. For example, additional rigging needed for safety or removal, the weather changes, water levels rise, more timber drifting into current blockages and additional blockages created by bad weather. Timber Harvesting Solutions LLC can only provide the Village with our best assumptions that the removal process will go accordingly.

The recommendations that we made, will benefit the Village of Weston in many ways. The greatest benefit from removing all the current blockages would be that future potential blockages will be reduced and less severe in size. For example, ECB 6, 9, 12 and 15 started as a little branch hanging in the current, which then escalated, twisting with a floating stump or log. We strongly recommend removing the blockages yet this fall/early winter initially, and on a yearly basis to maintain open channel conditions.

Accompanying this report is an estimate for the removal of the blockages. We hope that the Village of Weston recognizes the effort put behind the survey and report, and contracts Timber Harvesting Solutions LLC for the blockage removal.

We would like to thank Dan and the Village of Weston for reaching out to a local, “**hometown**”, business and allowing Timber Harvesting Solutions LLC to serve you!

Contact Information

Survey/Report Completed by:

Timber Harvesting Solutions LLC
Attn: Abram Weller-Owner
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Address: 5902 Pine Park St., Weston, WI 54476

Survey Completed for:

Village of Weston
Attn: Daniel Guild- Village Administrator
Phone: 715-359-6114
Address: 5500 Schofield Ave., Schofield, WI 54476

POST BLOCKAGE REPORT

1/16/2018



Safe. Reliable. Dedicated.

Abram Weller

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Introduction

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Removing the Blockages

The removal of timber blocking the Eau Claire river started on 1/4/2018 and was completed on 1/15/2018. Initially, the weather conditions were at 10 degrees or below leading to solid ice conditions, 4 inches on most sections of the river. However, during the 2nd week of cutting the weather warmed to an average of 34 degrees causing the river to melt and re-open the water. As a result, some of the blockages had to be cut from shore and left in larger pieces.

Accompanying the report are detailed before and after pictures, showing the successful removal of the 15 blockages found during the survey. In addition, Timber Harvesting Solutions LLC did encounter more blockages that were not present during the survey. We acted proactively, by documenting the blockages and removing them. This will prevent or at-least reduce future complaints made to the village in the coming kayaking/canoeing season.

Every blockage site was assessed for safety prior to cutting. We used ice picks to test the ice wherever we had to travel, ensuring that we would be working on a minimum of 3 inches of ice, regardless of any existing tracks. All work and travel were done by hand, and on foot only, we did not use any machines either than standard logging equipment. Safety land-lines were used and monitored by a person while working on each site. This was used to protect the hand-cutter from falling in and drifting down stream if the ice broke open due to new stresses from the weight of the timber.

The cutting at each site varied depending on ice conditions. As stated above, majority of the timber at each site was cut into small pieces not to exceed 3 feet, if attainable. Only two sites had to be left in larger chunks which are ECB 13,14. At those two sites, the ice showed unsafe

signs and tested not to be safe enough to work on the timber from standing on the ice. We did however cut the blockages from shore, and enough to keep the channel open to boat traffic.

When Spring Comes

The biggest question that we kept in mind while cutting was, "Where are all the timber pieces going to go in the spring?" This fueled us to make every effort to cut the timber into smaller pieces, which will move into better positions. Once the spring run-off water begins, the rise in water levels will lift the floating timber pieces. The pieces will travel into flood timber areas that should not create new blockages.

On average, the Eau Claire river will rise over 5 feet in the spring. This will cause water to travel over and through thick wooded areas of standing brush, grass, and trees near the main channel, the cut timber pieces will float through and get tangled in those areas or be pushed into banks on corners. When the water levels begin to drop, the smaller pieces will be left in higher elevation areas, to decompose over time.

Conclusion

Timber Harvesting Solutions LLC and the Village of Weston have made great initial efforts to keep the Eau Claire river clear of blockages. By conducting a survey in the fall, we can see the severity of each blockage and how it will continue to affect the currents and endangering more lands to become increasingly eroded.

Timber Harvesting Solutions LLC has identified, planned, and removed more than 20 blockages in the Village of Weston's control. During the removal process, we used appropriate safety techniques to ensure that the work was completed safely.

The timber that was blocking the river was cut to benefit the river in the future years by only leaving smaller pieces of wood to reduce future blockages and increase decomposition time.

Timber Harvesting Solutions LLC would like to thank the Village of Weston for reaching out to us with their unique dilemma. We are glad to serve our community and look forward to helping the Village out in the future years.



ECB#1



ECB#1



ECB#2



ECB#3



ECB#4



ECB#5

Before and after pic



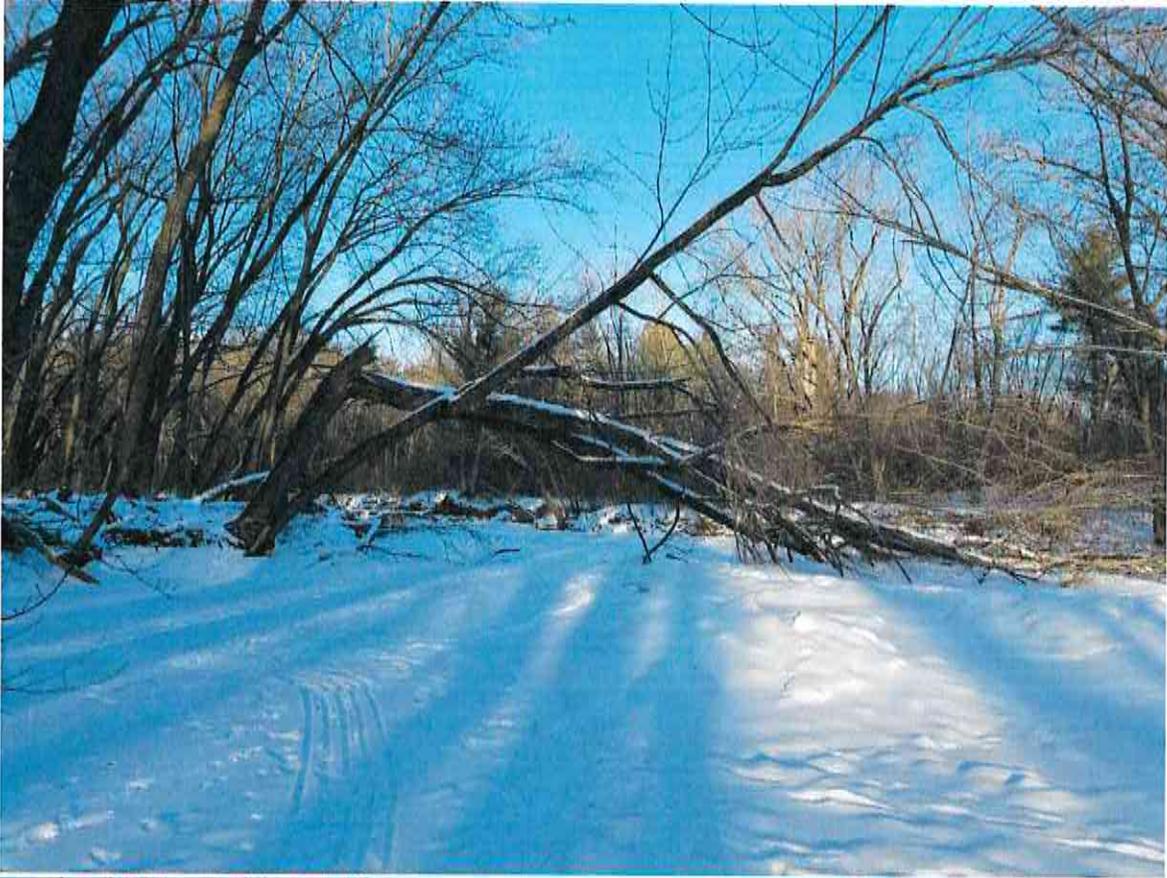
ECB#6



ECB#7



ECB#8



ECB#9



ECB#10



ECB#11



ECB#12

Put after pic here



ECB#13



ECB#14



ECB#15

Additional Blockages that were created sometime after the survey and January. Timber Harvesting Solutions LLC did remove the blockages to continue forward without delays. Below are pictures showing the size and work completed.





