McKinley Paper – Wisconsin, Combined Locks mill
WIPDES WI-0000990
12/21/2022 ~8am
Process water discharged to storm sewers
Initial estimate of 5000 gallons of water and 20 pounds of fiber reached the Fox River via storm water outfalls
1:35 pm contacted the DNR spill hotline
1:50 pm VM for Laura Gerold notifying of spill and copy of report sent over later
2:13 pm touched base with Cody Heinz – DNR spill coordinator

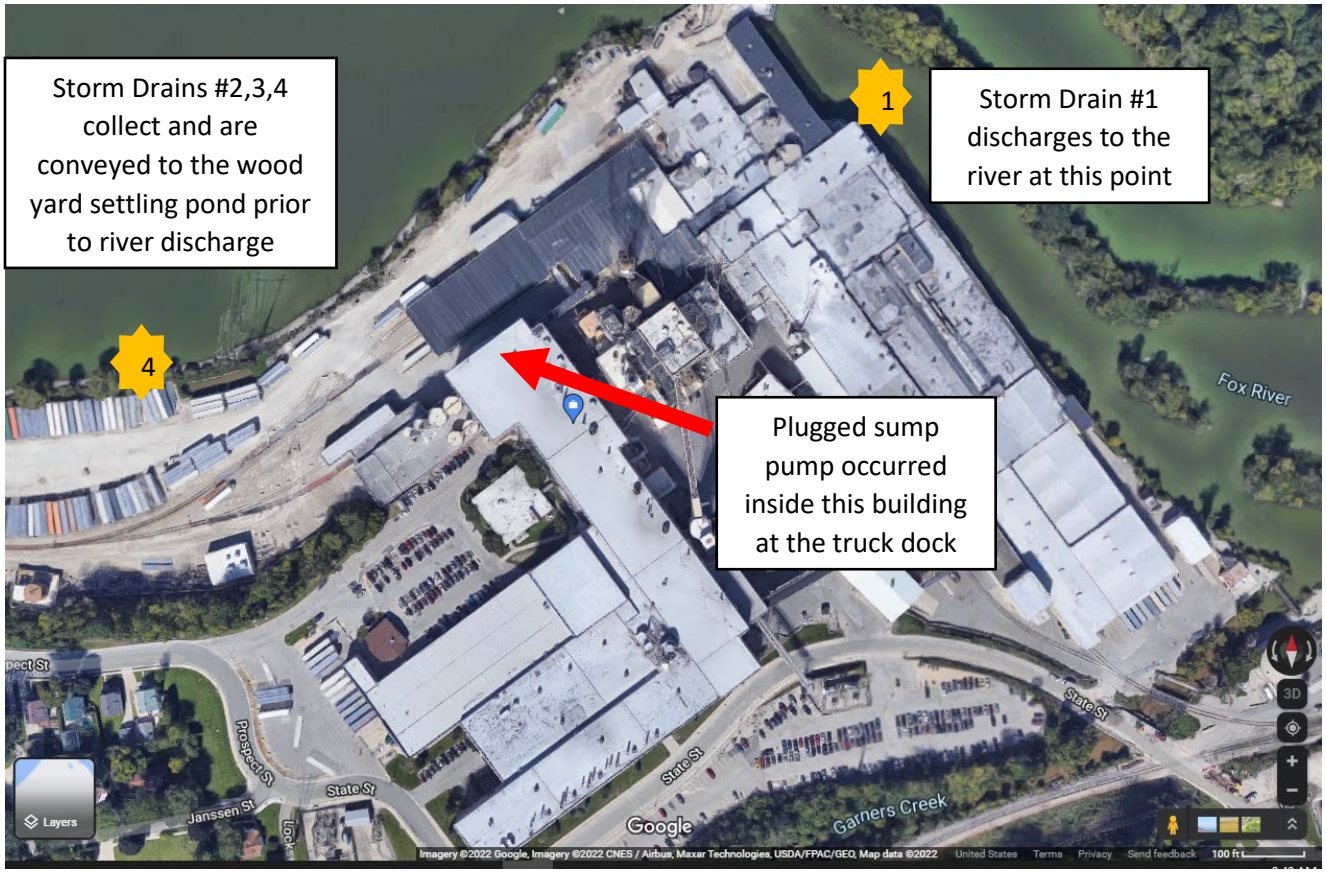
At about 7:45 am on 12/21/2022, we were flushing water through the blend chest after shutting Paper Machine 7 down for the Christmas holiday. As the blend chest was being flushed out, a sump pump failed. The flush water then back flowed through the system to the low point at the PM7 wet end truck dock. The truck dock is a drive through style with drains to collect water/snow off delivery vehicles. Any water collected in the truck dock is held until it is drained via a manual valve to the mill waste water collection system. This manual valve appeared to be closed, but there was some type of internal blockage that kept the valve from fully seating. Once the truck dock began flooding, effort was applied and the valve was fully closed preventing any more process water from backflowing to the truck dock. The blockage was most likely mud or dropped road dust that prevented the valve from fully seating, but it is possible freezing/ice due to the recent temperature drop could have affected the situation.

Once the spill was detected, storm drain covers were deployed. Most of the water remained in place in the inside truck dock and was drained to our waste water collection system after the plugged line was cleared. Some water drained under the man door and truck door at the east end of the truck dock as that is the low point. Once the cover was placed at Storm drain #1 (see maps), the water ponded and was pumped back into the mill waste water collection system. Water that left the west doors trickled down an extended path once storm drains #2, #3, and #4 were covered/diverted and most of the water froze on the parking lot. We used a Bobcat to scrape up the slush/ice and bring it back into the mill for treatment in the wastewater treatment plant.

Water used to flush the chest was internal mill water recovered for reuse, so it had a brown color due to bits of fiber. This water source is approximately 0.05% paper fiber. We do add some biocides to the process, but there are no measurable chlorine residuals in our mill water loop while we are running brown paper grades; all chlorine is consumed in the process. There could be some residual starch that did not stay with the sheet of paper in the manufacturing process, but we do our best to make sure the starch is bound up in the sheet or surface applied as it is added cost when it washes through**.** It is estimated that 5000 gallons of water reached the drain at 6B and 20 pounds of fiber was contained in it, although this could range up to 11,000 gallons and 48 pounds of fiber. Typically we see fiber stick to the concrete and mat up so it doesn't all reach the full distance. We cleaned up any fiber remaining on the ground.

The following pages contain maps of the mill site and then an inset to show the storm drains. Pictures and descriptions are also attached.

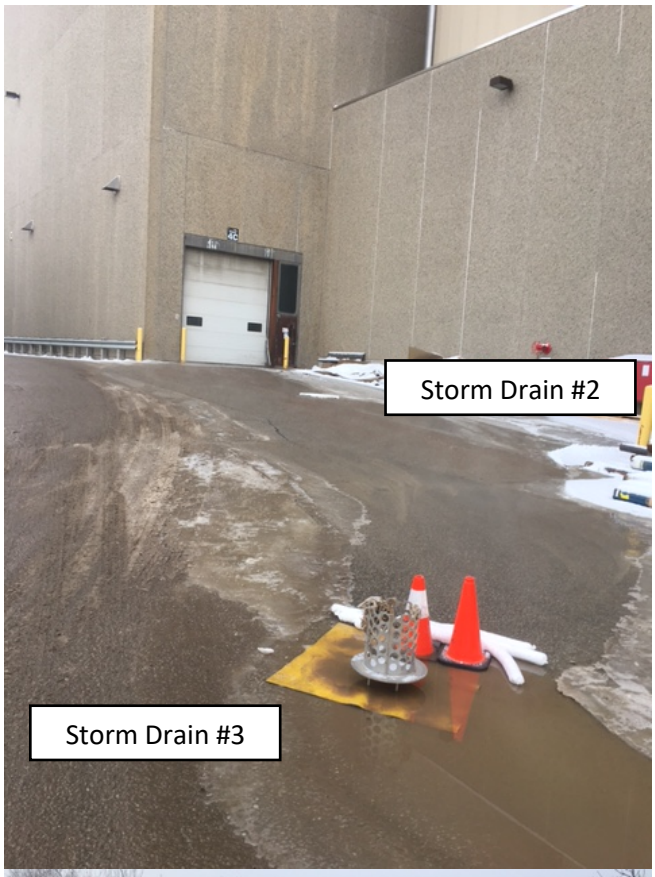
Site Map – McKinley Paper – Wisconsin, Combined Locks



The majority of water that was lost left the East end of the PM7 truck dock (Door 4C) towards storm drain at dock 6B

Water running from East end of PM7 wet end truck dock (4C) to storm drain near dock door 6B before storm drain cover was put in place. (Storm drain #1 as shown on the map of the spill)

Dock 6B storm drain #1 after the drain cover, estimated to be 5250 gallons of water at 9am. Cleaned up by 11a.

Water leaving the West end of the dock door 4C before storm drain covers were deployed & water inside the dock

Less water left the West end of the building via the truck door and man door at 4C. Storm drain #2 (on the map) was barricaded to divert water past it. Storm drain #3 was covered to prevent water from entering it. Water flowed past and headed to storm drain #4 where it collected and froze. Any water that entered the storm drain, is diverted to the wood yard storm water pond where fiber will settle out.