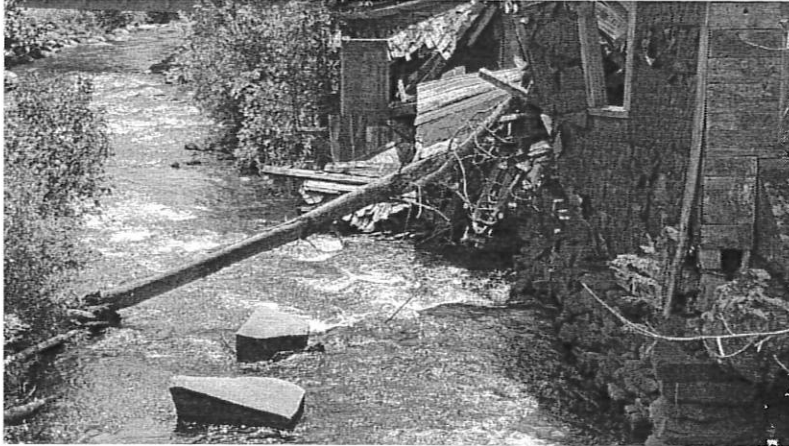


Recommendations



It is recommended the Dam structure be removed to improve public safety and to prevent a large discharge of sedimentation and unchecked erosion of the channel that would be a result of dam failure. Floodplain inundation will decrease with the removal of the structure. Potential areas of impact in a dam failure include the outfall from the town's wastewater plant, sawmill road and bridge, debris

from failing structure on the parcel can potentially cause blockage of water flows in and around downstream structures increasing damage from high water flows. Upstream yearly flooding occurs and large scale flooding events are more extreme based on the current impoundment.

The site also has some chemical contamination issues, the soils on the eastern side of the river have tested positive for a variety of chemicals that would require monitoring

Benefits

Benefits to removal of the Dam, lowering the upstream flood stage and prevention of a dam failure, restoration of the river channel and improvement of aquatic habitat for fish passage, there will be a reduction in flood inundation zones upstream along Jug Brook and the Winooski River. This will allow for property Restoration of habitat for fish and protection of public infrastructure. Removal will also compliment the removal of the dam in Marshfield that was completed in 2013.

Costs

Costs to the Town, under the current grant program utilizing CDBG-DR funds the grant covers all expenses to the town. The landowner is paid 75% of the assessed value and all other expenses are covered. As there is a December deadline, all of the site work with the exception of the dam removal, will be completed prior to this deadline. Other grants are available from organizations like Friends of the Winooski, VT DEC, Trout Unlimited and various river restoration grants that will fund the removal of the dam itself at little to no costs to the town.



Other Revenue Opportunities

The Town currently receives \$532.82 in tax revenue from the parcel. There is an opportunity to develop either a solar or small micro power turbine on site to offset electrical expenses for the town this could offer significant savings to the Town and could provide significant savings beyond the tax income received from this parcel.

Clark Sawmill Dam Factsheet

Background:

Clark Sawmill dam is located approx. 225' upstream of Sawmill RD The dam is a dry stacked stone structure on a ledge base with a concrete cap the spillway is 70 ft wide and 14 ft tall. The impoundment is filled with sediment with no flood storage. The structure is deteriorated with dislodged stones spalling concrete and a failed intake structure.

The drainage area of the dam is 21.5 square miles and impounds more than 500,000 cubic feet of water and sediment. The Dam and mill structures are in poor condition. The dam has major structural deficiencies and the dam safety assessment indicated the dam is in need of removal or reconstruction.

The stone masonry is in poor condition vegetation and roots were observed growing in the structure. The concrete cap is missing in certain areas and water flows through the concrete. The penstock is dislodged from the dam and is currently loose in the river bed.



The Dam currently impounds 4,500 cubic yards of sand trapped upstream of the dam. The risk of sediment release from dam

failure is equivalent to 5 years of natural up channel sediment discharge. The impact of this flow into the Winooski would smother downstream aquatic habitats. The erosion of both the upstream and downstream channel in a flooding-dam failure.

The property 1.7 acres +/- which comes with the dam and associated structures includes the water and flowage rights on the brook and to West Hill Pond. There is no liability to the Town with the ownership to the water rights. These rights only permit the owner to send water through the dam.