



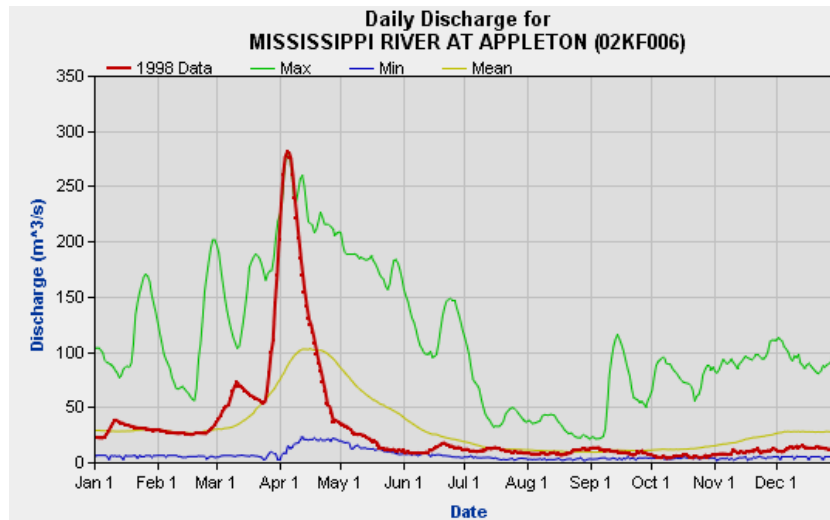
9. ALMONTE SPRING FLOODING

What we know, and
What we don't know

Al Seaman
MRW



What we Know – Historical Flood Data





Things to Note

- Highest flood April 9, 1998 - 282 cms
- Enerdu calculated 1 in 100 year flood - 261 cms
- MVC Regulatory Flood - **342 cms**, 20% greater than 1998 flood
- Enerdu has used their number in flow studies limited to area of powerhouse intake to 69 metres upstream from the railway bridge.
 - No studies of flow beside powerhouse or further upstream have been made public.



Powerhouse & Barley Mow

- This point is the narrowest point in the river as it passes through Almonte
 - currently 54 metres
- The new powerhouse will narrow this channel by 15 metres
 - about 30%
- Flood studies need to be done for flow of 342 cms...
 - 20% greater than 1998 levels
 - 30% greater than the number used by Enerdu



A reminder of the 1998 flood



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5



Know and Don't Know

- With a narrower channel and higher flood flow we know that the flood risk here will increase substantially.
- We don't know how much higher a flood might be - that is a complicated estimate - and Enerdu should be doing that.
- We don't know where the water will go if there is an uncontrolled flood.

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6



The Project

- Leonard Lee raised the possibility of doing a level survey of downtown. He has a surveyors level. I agreed that it was the thing to do.
- He persuaded Ross Taggart to help out.
- With Ross on the level, Leonard holding the rod and me taking notes, the field work was done.
- Converting the observations to a map was a major chore, but here it is.

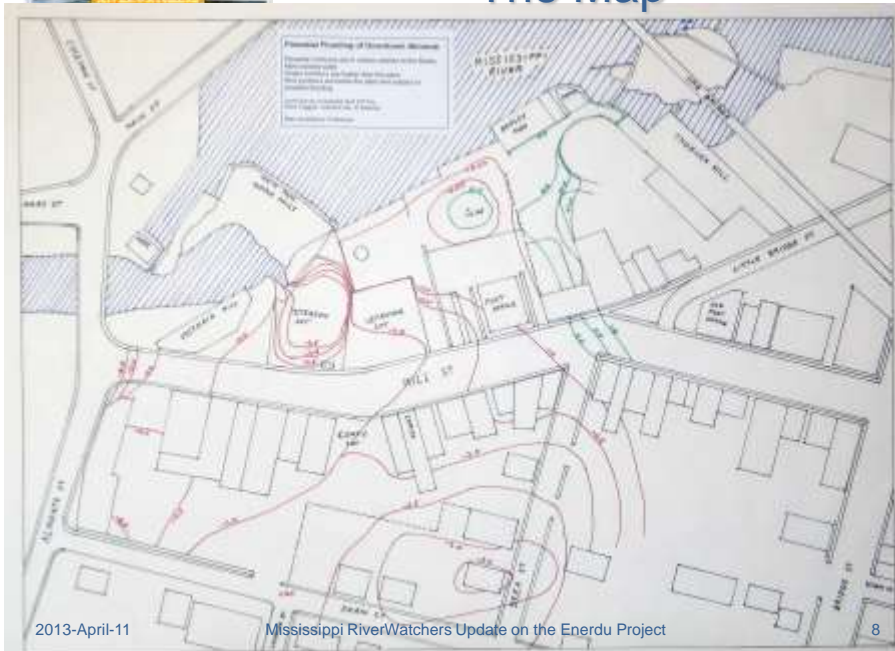
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7



The Map



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8



The Bottom Line

- If there is a flood here, it could cause a serious problem.
- We don't know what Enerdu is considering as preventive measures.
- Our preferred option - **don't build the powerhouse in the river channel.**

The Map

Potential Flooding of Downtown Almonte
Elevation contours are in meters relative to the barley low outdoor patio
Green contours are higher than the patio
Red contours are below the patio and subject to possible flooding
Level Shores completed April 2013 by Ross Taggart, Leonard Lee, Al Seaman
Map compiled by Al Seaman

