From: <a href="mailto:vrcaruso@comcast.net">vrcaruso@comcast.net</a> [mailto:vrcaruso@comcast.net]

**Sent:** Monday, May 16, 2016 1:18 PM

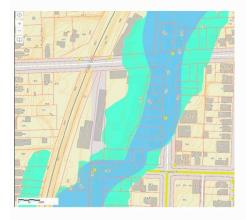
To: Planning

Subject: 221 Felch St.; 615 S. Main Comments; New studies question plans

Planners and Planning Commission,

Two developments are up for review in the Tuesday Planning Commission Meeting, see below. The ACWG does not support these developments. We have seen how the city pays dearly years later for risky development in and around the floodplain and wetlands, the effects on the unsuspecting homeowners and the negative effect on our tax base.

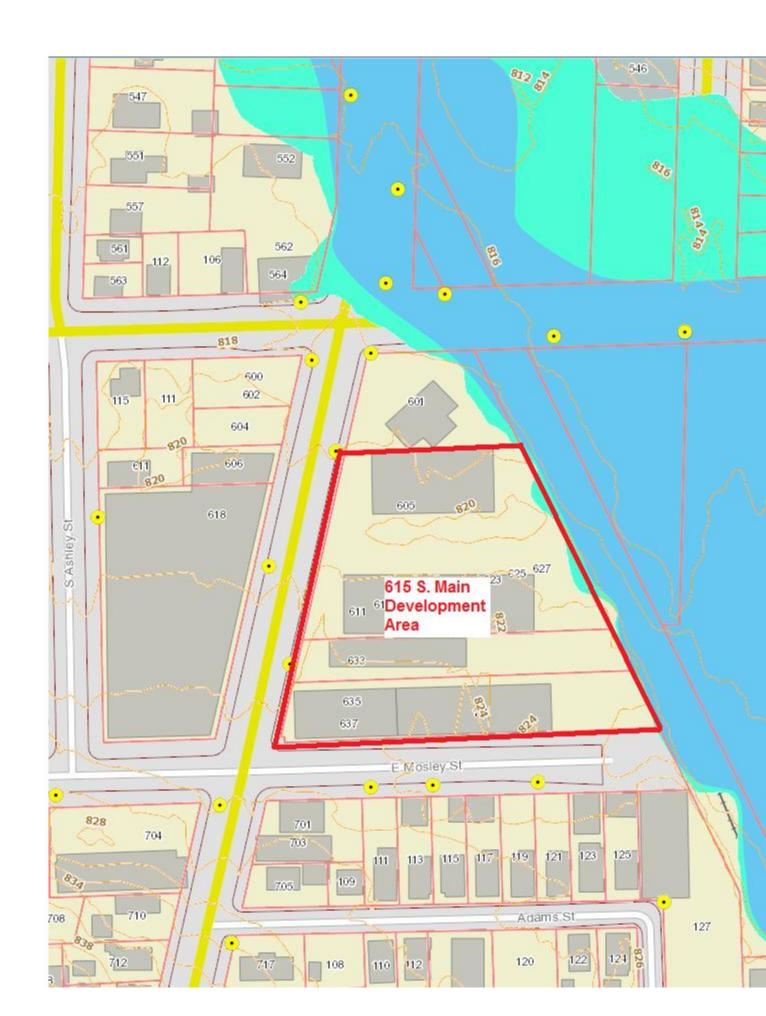
## 221 Felch St. Condo Development in Floodplain and Floodway



A2 Recent (11-2015) Online City Map; 211 Felch St. area; Floodway in blue Floodplain in green;

Condos just east of tracks in the floodplain with parking in the Floodway on top of the Allen's Creek (currently in a pipe); Right click for larger view

## 615 S. Main Six Story 229 Apartment and Mixed Use Proposal



## Floodway in blue Floodplain in green

**Three businesses** on this site have commented, one at the public developer meeting, that they have had flooding in recent years, parking proposed underground below the building. Right click for larger view

These and several other **developments** have recently been approved and many more in the pipeline that are developing the **floodway and floodplain** with businesses and homes, with real issues related to the flood hazard that will be faced by the owners and the community.

Developing the floodplain and floodway not only affect the new owners but also put those up stream at **greater risk** of flooding, life, health and property loss. **Loss in our City Tax Base** of existing now newly flood prone homes and businesses who are our known, long term, reliable and valued city tax payers, some properties who have payed city taxes for well over 100 years.

The Huron River Watershed Council (HRWC) has recently posted on the web (Feb. 2016):

'Implications of precipitation changes in Southeast Michigan and options for response: A guide for municipalities'.

From sections of the Report (click above link to see the full document):

- ''<u>Add a 15 to 20 % safety factor</u> to stormwater management requirements In addition to adopting the 2012 NOAA Atlas 14 precipitation frequency estimates, counties and communities could add a 15 to 20 percent safety factor to rain event sizes.
- Regulate to the 0.2% (500 year flood not just 100 year) annual chance event. Based on the current NOAA precipitation estimates the 0.2% event is approximately 30% larger than the 1% event. As climate change continues the 1% event will increase and at some point equal the current 0.2% event.
- NOAA's Hydrometeorological Design Studies Center has updated precipitation frequency estimates (with 90% confidence intervals) for Michigan in Volume 8 of NOAA Atlas 141. This analysis, released in 2013, incorporates precipitation data through 2011 and utilizes more data from more weather stations than previous efforts. Event storms have changed in magnitude with implications for stormwater management. The Atlas is now the official U.S. Government source of precipitation frequency estimates.
- Total Precipitation Increased by 44% in Ann Arbor since the 1950's [with very large increases in urban development and associated imperviousness].
- **Heavy storms** have become stronger and more frequent throughout the region. Larger storms have grown faster than total precipitation, meaning more precipitation is concentrated in heavier events.
- Heavy and extreme precipitation events have become dramatically more frequent in the Great Lakes region. The amount of precipitation falling in the most intense 1% of

precipitation events increased by 37% in the Midwest and 71% in the Northeast from 1958 through 2012"

• (bold and underline by us)

The **federal** government now virtually **forbids** any federal funds use in the **500 year floodplain** in the US for critical structures and <u>any structures</u> in the 100 year floodplain. How can Ann Arbor use much lower standards then the Federal Government, is a major question yet to be answered.

A new study just out April 25, 2016:

Michigan Climate and Health Profile Report 2015 -Building Resilience Against Climate Effects on Michigan's Health



(GLISA)

- From the May 2nd 2016 issue of **U** of **M** University Record:
  - 'Changing climate conditions including warmer temperatures and <u>an</u> <u>increased frequency of heavy rainstorms</u> — represent ''an emerging threat to public health in Michigan,'' according to a new report from university researchers and state health officials.'
- This report by the Michigan Department of Health and Human Services and the Great Lakes Integrated Sciences Assessments (GLISA) Program—a partnership between the University of Michigan and Michigan State University.
- Key finding from the Great Lakes Integrated Sciences Assessments Program Report:
  - "Additional changes include an increased frequency of some types of weather extremes such as <u>heavy precipitation events</u>. These changing climate conditions have had an impact on both environmental and human systems, representing an emerging threat to public health in Michigan."
  - Ann Arbor 29.4% increase in rainfall events over 1".
- (underline by us)

- Contributor to this report <u>Dr. Larsen</u> was a invited member of **Ann Arbor Climate** Change Panel and the very first thing she said in her opening statement:
  - 'First don't build in the Floodplains!'
- Contributors to the report:

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Thank you for your consideration,

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