

Protecting riparian buffers through floodplain regulations

Dave Sharples
City of Somersworth NH

Protecting water resources

- ▶ There are a myriad of regulations that can be used to protect surface and groundwater resources
- ▶ Aquifer Protection Districts, Groundwater Protection Districts, Riparian Buffer Ordinances, Wetlands Ordinances, Stormwater Regulations, Erosion Control Ordinances, etc.
- ▶ Incorporating Flood Plain Regulations can also aid in the protection of water resources

Flood Plain Regulations

- ▶ Municipalities can adopt local flood plain regulations. Required to be part of National Flood Insurance Program (NFIP).
- ▶ The NFIP is federally backed insurance that offers an alternative to disaster assistance to meet the escalating costs of repairing flood damage.
- ▶ NFIP is only available to communities that have adopted local flood plain regulations.

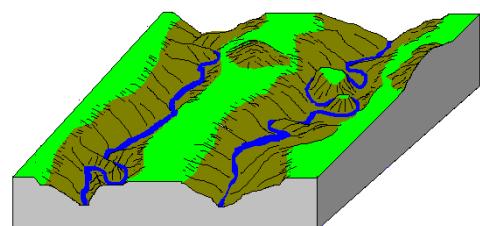
Flood Plain Regulations

- ▶ Flood plain regulations require that structures are built to minimize flood damage
- ▶ New water and sewer systems must be designed to minimize or eliminate the infiltration of flood waters into the system.
- ▶ Where Base Flood Elevation has been determined, requires the lowest horizontal structural member to be at or above the BFE



Flood Plain Districts

- ▶ Flood plain districts are determined by the Flood Insurance Rate Maps (FIRM).
- ▶ Sometimes boundary can be right next to a waterway whereas in other areas can be several hundred feet or more
- ▶ Cities and towns should examine the FIRM Panels to determine the extent of the flood plain in their communities

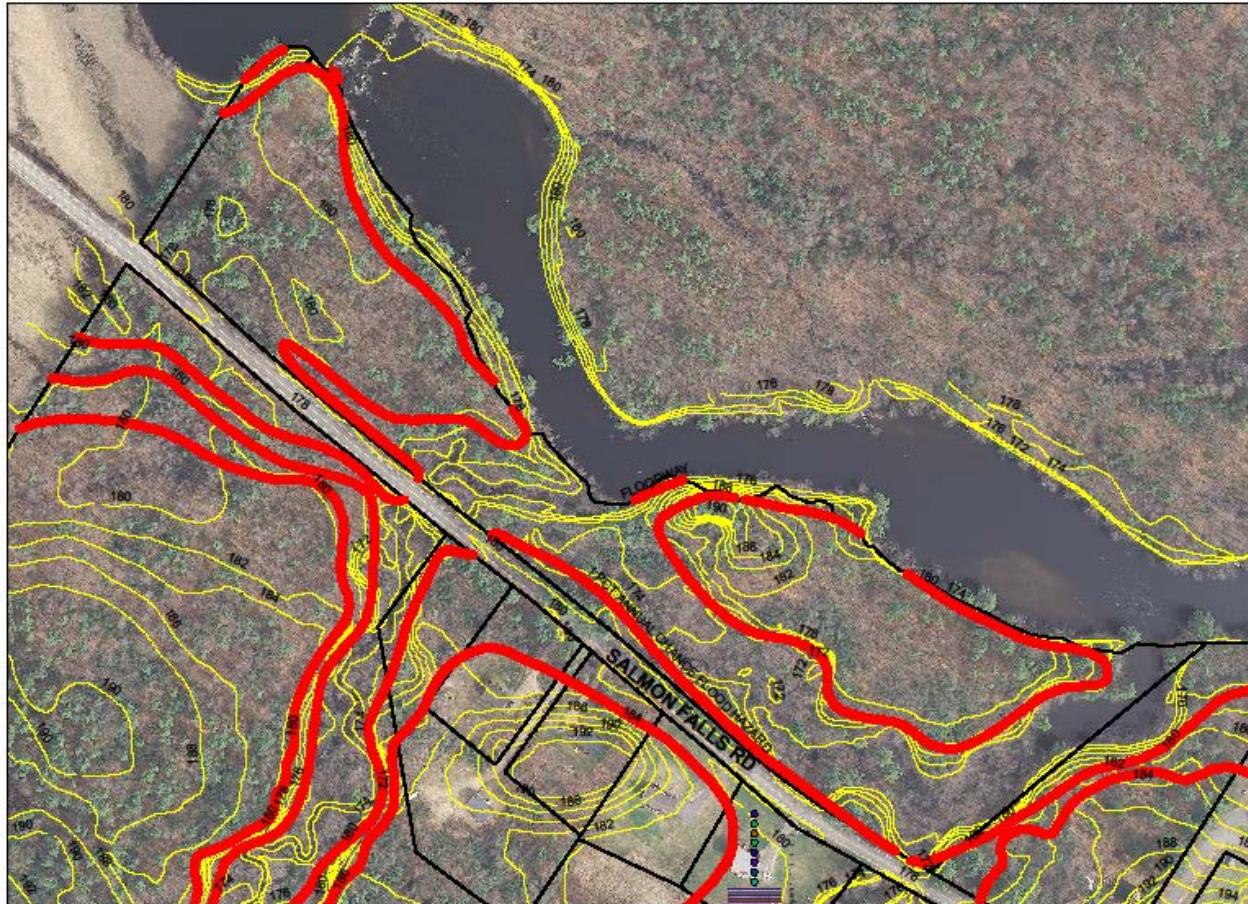


FIRM Panels should be verified during local approval process

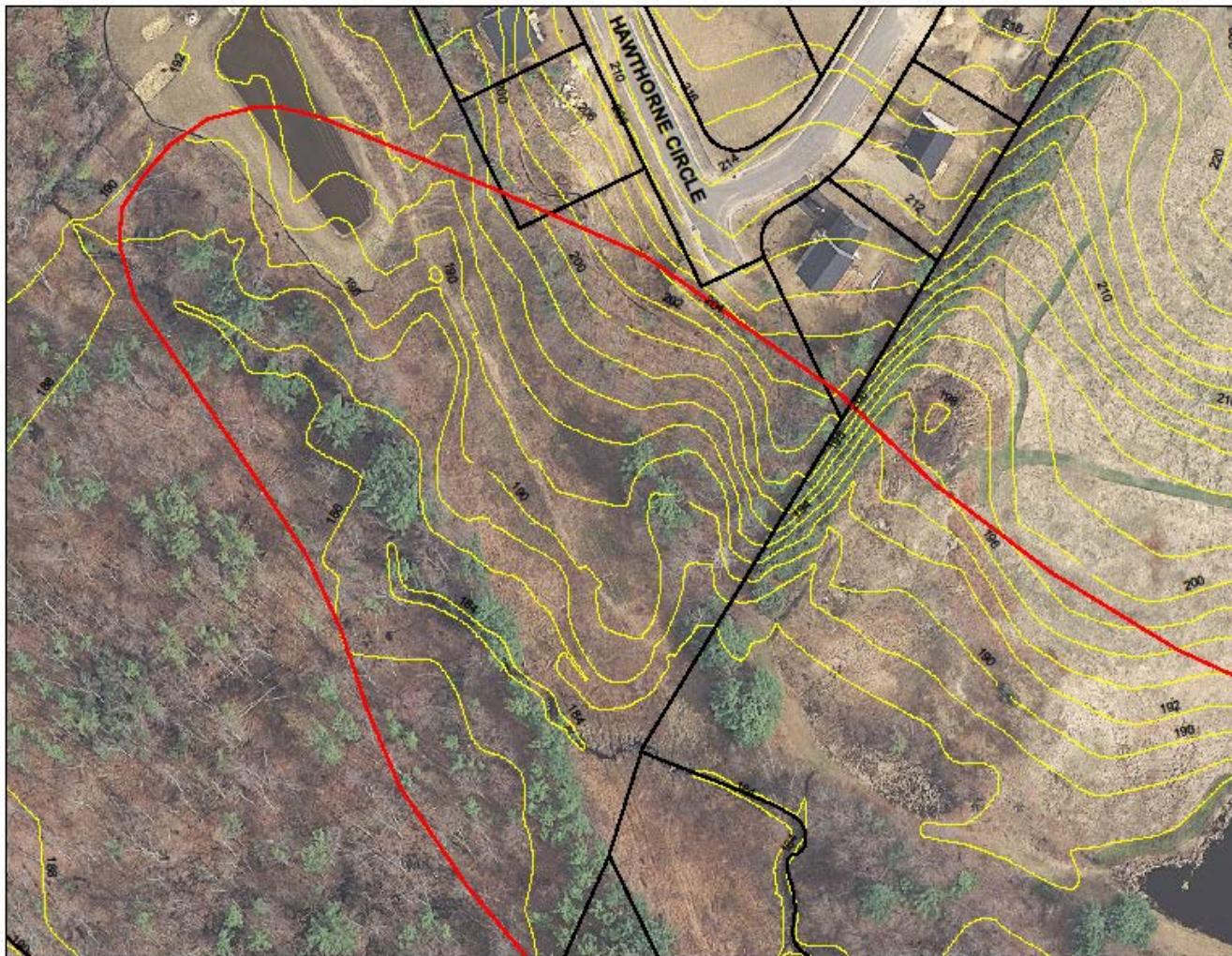
- ▶ Local planners should verify accuracy of flood plains. FIRM panels are completed by aerial photography and some onsite visits.
- ▶ Paying attention to your community when these events occur can aid in determining the accuracy of these areas.
- ▶ Examining local contour data can also reveal inconsistencies.
- ▶ Two examples of why you should check flood plain designations...

Salmon Falls River

Salmon Falls Recreation Parcel



Also check contours



Add reference to flood plains in Zoning

- ▶ Although flood plain districts allow building within the district, excluding the flood plain in your minimum lot area calculations provides incentive to build outside the 1% annual chance flood.
- ▶ Allows flexibility to a homeowner to choose where to build.

Minimum Lot Area definition

- ▶ Minimum Lot Area: The gross land area, minus any land area which supports slopes in excess of twenty percent (20%) as measured over a ten (10) foot interval, the regulatory floodway and flood plain as defined in the Zoning Ordinance, the surface areas of waterbodies and wetlands as defined in the Zoning Ordinance, private and public roads, and easements and utilities for utility or other public purposes which are located above ground.

Flood plain and minimum lot area example



Minimum Lot Area definition

- ▶ Excluding the Flood Plain from the minimum lot area calculation does reduce density (# of units) that can be built on a parcel.
- ▶ Does not exclude someone from building in the flood plain but most will choose to build outside the district as it is less expensive.
- ▶ Building outside the flood plain minimizes the threat of contamination associated with flooding events. They don't happen often but can be disastrous when they do.

Summary

- ▶ Adopting floodplain regulations in your municipality insures that buildings constructed in the flood plain minimize threats to water quality when flooding occurs.
- ▶ Local knowledge and observation during flood events can reveal flood prone areas not show on Firm panels.
- ▶ Excluding the area within a flood plain in your minimum lot area definition provides incentive to build outside the flood plain.
- ▶ Excluding flood plains from minimum lot area calculations can provide significant buffers between development and waterways.

Summary

- ▶ In addition to protecting water resources, flood plain regulations can have other benefits such as reducing or eliminating flood damage to property and reducing risk during emergency responses.
- ▶ QUESTIONS?