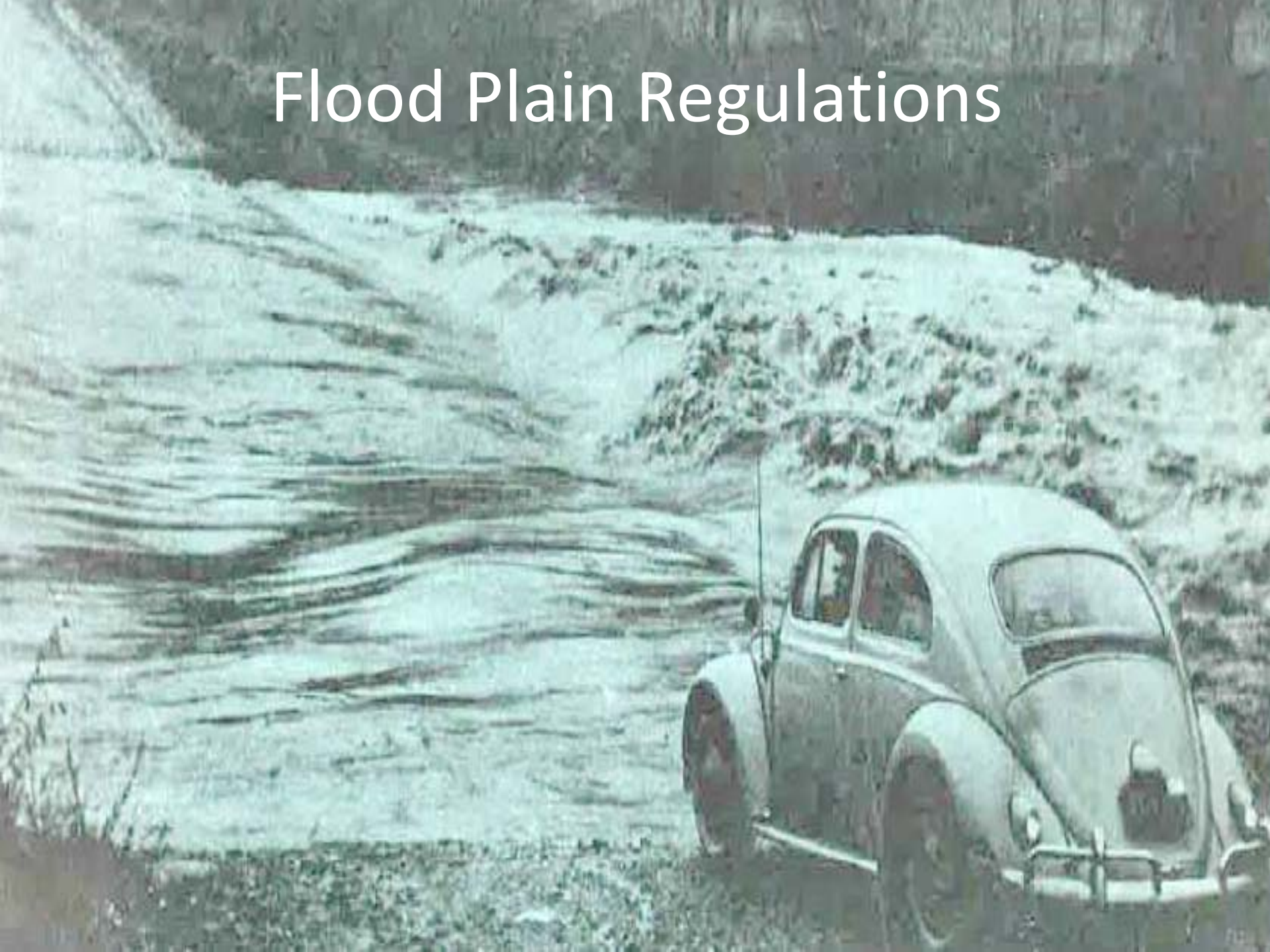


Flood Plain Regulations



Questions from last Stakeholder Meeting

1. How do regulations regarding fill prevent serious issues from developing?
2. What are the regulations for placing fill in floodplains and floodways?
3. Does the City or County pay attention to fill in the Floodway?

Also

Clarify which rules apply to fill within the floodplain

and

Where within the floodplain do the different rules apply

Flood Plain Regs vs Clean Water Act

Flood Plain Regulations live in the National Flood Insurance Program – NFIP

Administered by FEMA through local participating agency

Purpose

Balance
Protection and recovery from flooding
with
Preserving private property rights

Clean Water Act Regulations live in the Clean Water Act

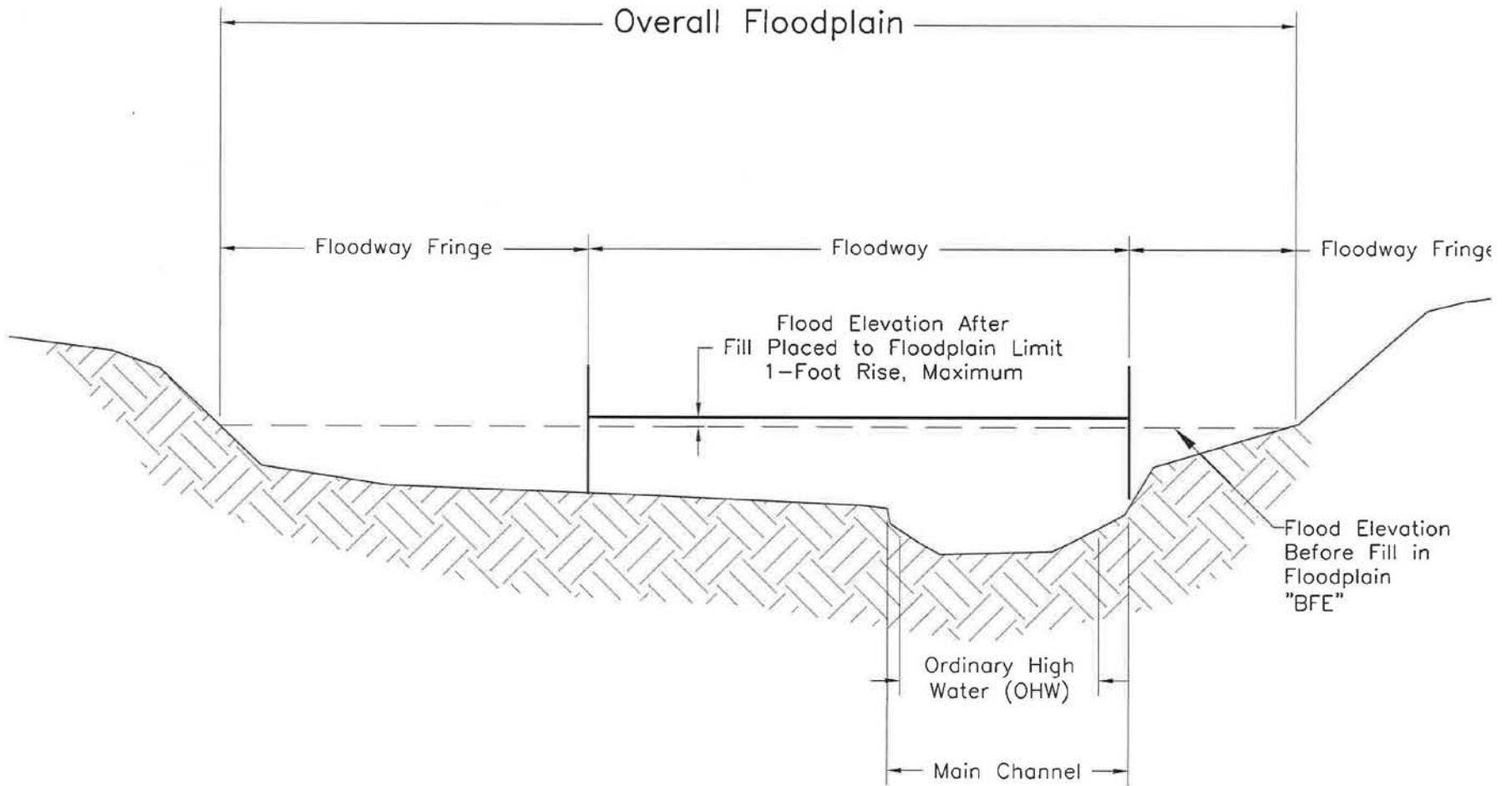
Administered by EPA through Corps of Engineers and state DNR

Purpose

Ensure Waters of the State are Clean

No Explicit Connection Between the 2 Regulations

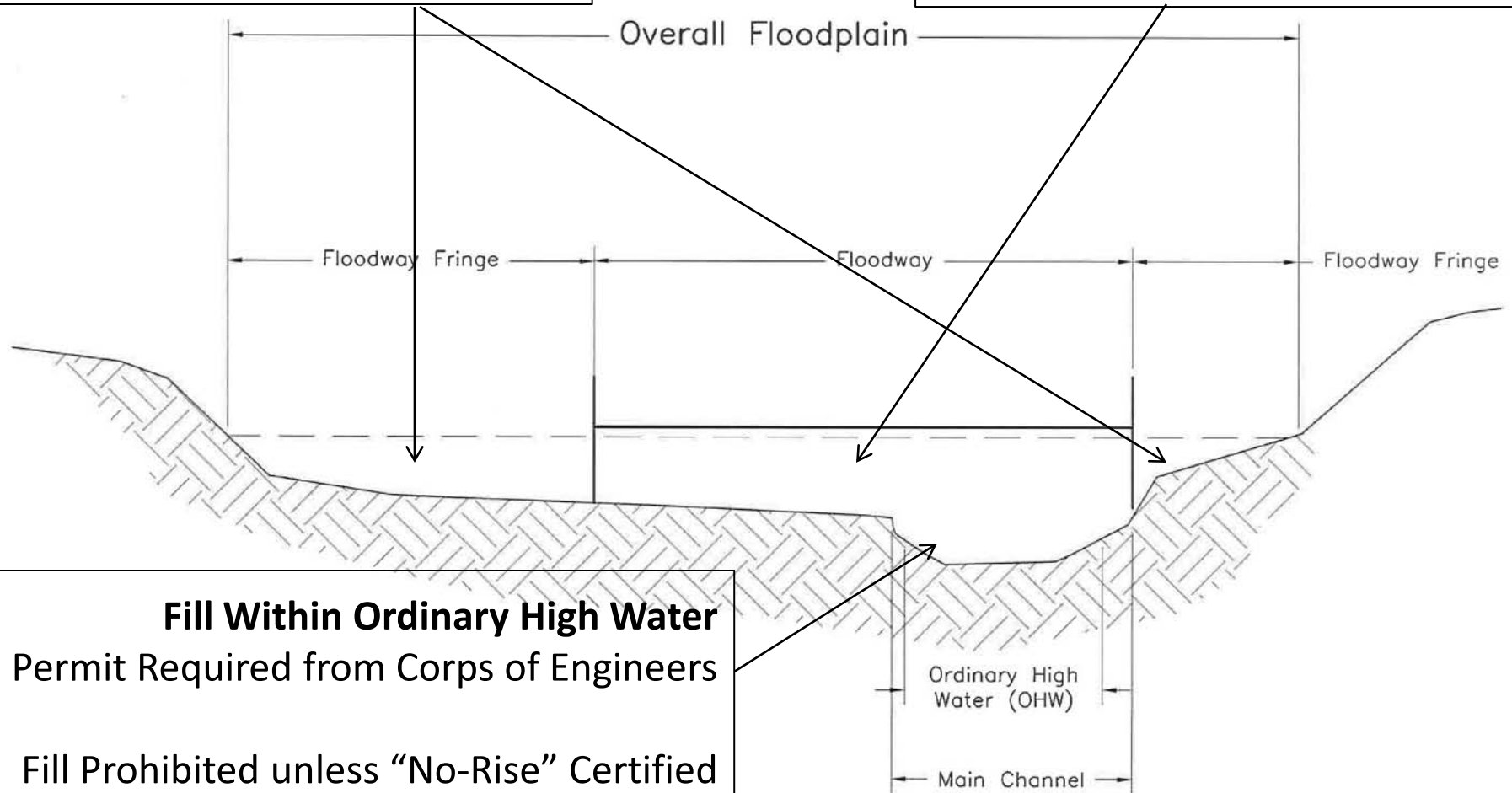
Flood Plain Cross Section Schematic



Fill Allowed Where, Who Governs?

Fill Allowed in Floodway Fringe
Permit Required From Local
Floodplain Administrator

Fill Prohibited in Floodway
Unless NO-RISE Certified to
Local Floodplain Administrator



Fill Within Ordinary High Water
Permit Required from Corps of Engineers
Fill Prohibited unless "No-Rise" Certified

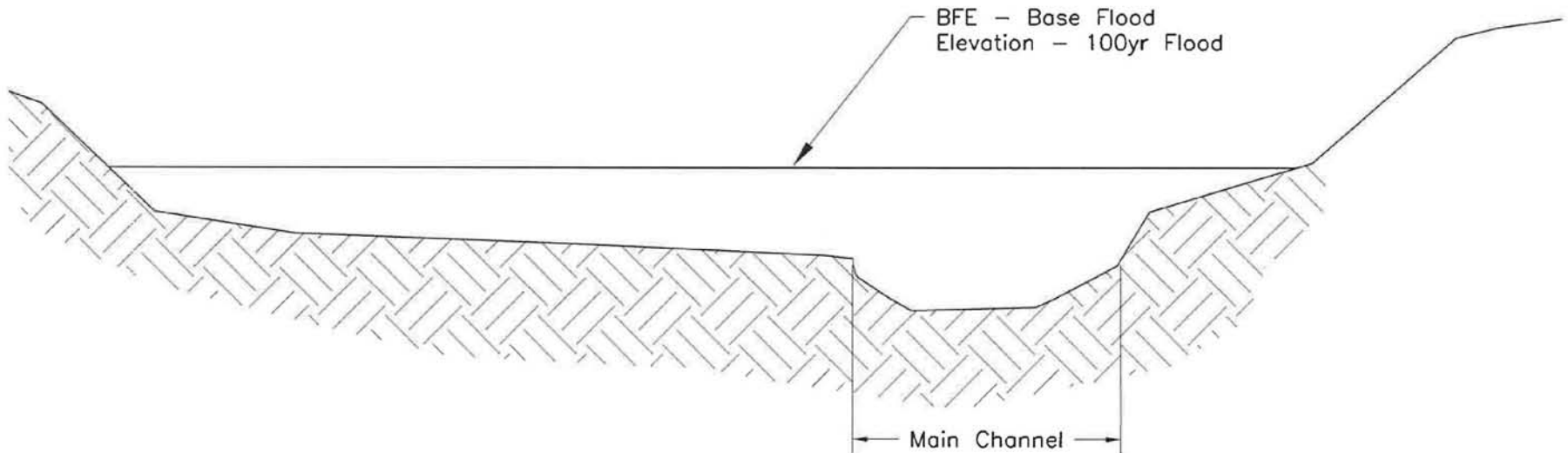
Modeling Flows in Floodplain

First the Base Flood Elevations are Established

BFE = 100-year flood = 1% flood

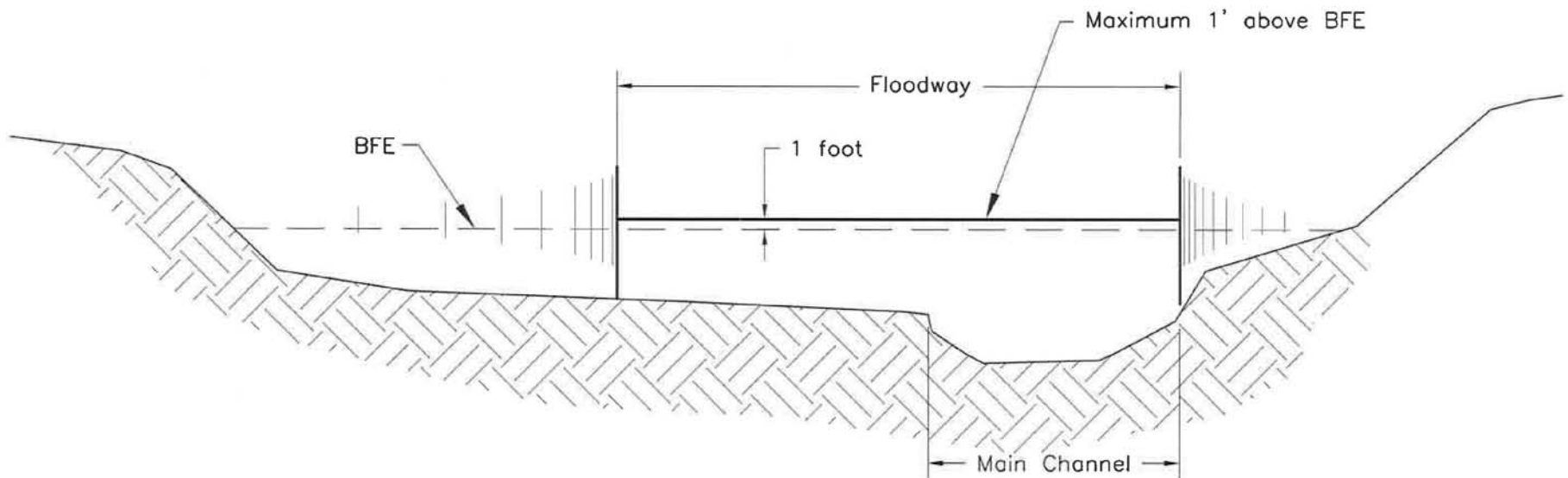
1% chance of happening in a given year

a 100yr flood has 26% chance of happening during a 30-yr mortgage (5% chance of fire occurring)



Then the Floodway is Established

Floodway = the **idealized** (in modeling) encroachment on the floodplain from each side that will cause 1 foot of rise of 100-yr flood



Regulations

Two Main Requirements

- **Build Above BFE**

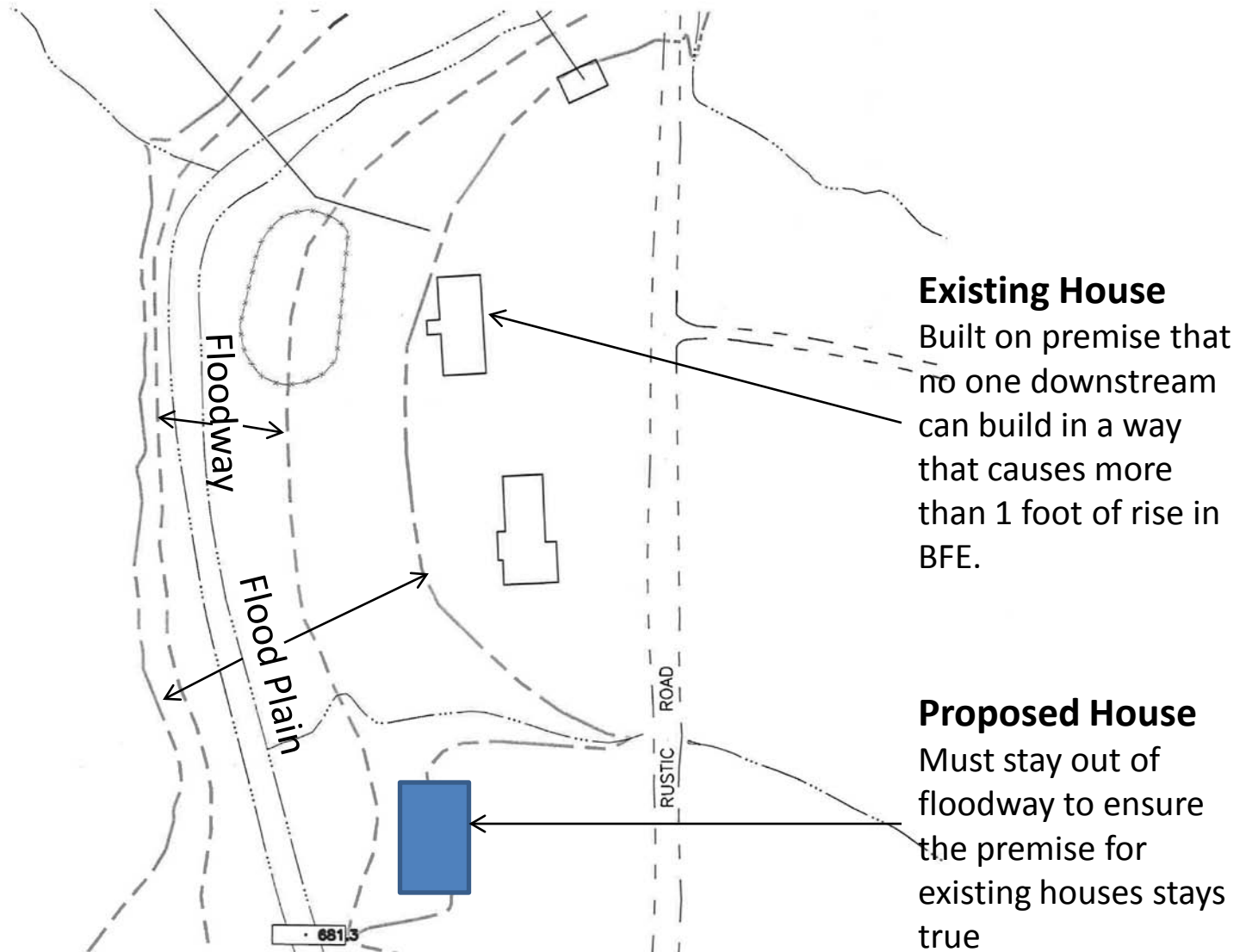
- Columbia Requires 2' above BFE
 - » (FEMA Requires 1" above)

- **Stay out of the Floodway**

- If building in the Floodway is necessary,
Certify “NO-Rise” in BFE
i.e. Structures like bridges need “no-rise”

Floodway Purpose

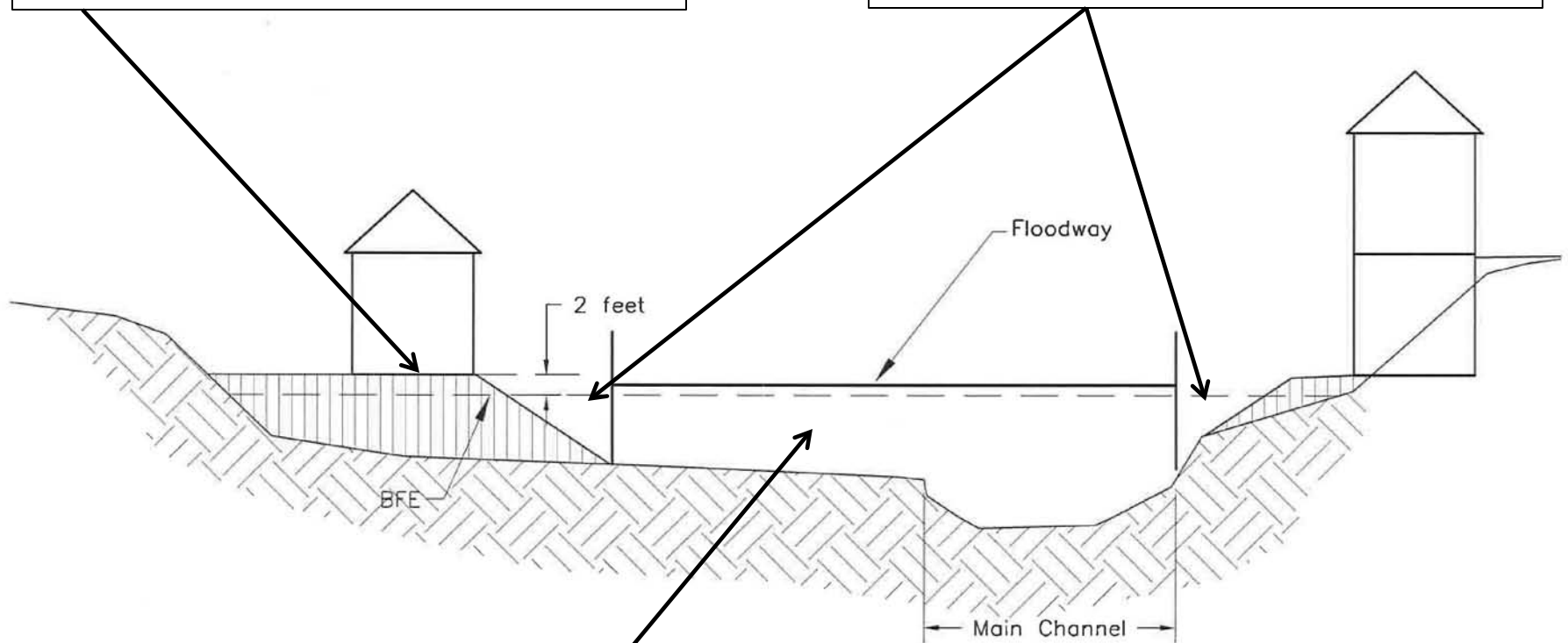
a way of keeping everyone on same page



Development in Flood Plain

Per City Rules: Low Floor Must be at least 2 feet above BFE.

Functionally difficult/expensive to fill to the floodway boundary



No Fill Allowed in Floodway Without "No-Rise" Certificate

Questions from last Stakeholder Meeting

1. How do regulations regarding fill prevent serious issues from developing?

A. Make sure folks build high enough

B. Make sure there is no more than 1 foot of rise in BFE by keeping folks out of floodway

2. What are the regulations for placing fill in floodplains and floodways?

A. Fill in Flood Plain is Allowed

B. Fill in Floodway NOT Allowed

3. Does the City or County pay attention to fill in the Floodway?

Absolutely!

In order to participate in the NFIP, the City and the County agree to enact and enforce regulations to keep this from happening.

Questions?



Estimating Flows

- Best available information
 - Stream gauge on creek being modeled
 - Gauge on Hinkson near Providence is spotty but valuable
 - Stream gauges from other, similar creeks
 - Other information
 - Soils and ground cover information
 - Rain gauge data
 - Caution! 100-year storm does not produce 100-year flood