

PROPOSED
CONSERVANCY DISTRICT/FLOOD PLAIN DISTRICT
BYLAW AMENDMENTS

PLANNING BOARD MEETING – FEBRUARY 3, 2015

AGENDA

BACKGROUND

- Why?
- Policy Direction
- Resources
- Terminology

DEVELOPABLE VACANT LOTS

EXISTING VS PROPOSED BYLAWS

- Fences, Paths, Driveways
- Alterations, Expansions & New Construction
- Height Considerations

Why are bylaw changes being proposed?

- Planning Board Agreed to Re-visit After 2014 ATM
- Helpful to Review Proposed Amendments in Context of:
 - What was in Floodplain Prior to 7/16/14 and What Remains
 - What was NOT in the Floodplain Prior to 7/16/14, But IS Now
- Encourage Proactive Measures to Protect Structures Located in the Floodplain
- Continue to Limit New Development
 - Particularly in the Most Vulnerable Areas (VE Zone)
 - While Being Sensitive to the Loss of Property Rights Resulting from the 2014 Changes to the FEMA Maps

CHRONOLOGY

- **ATM 2014: Planning Board Sponsored Article 35**
 - Adoption of new FEMA flood maps
 - Satisfied Basic Requirement to Comply with NFIP
 - Resulted in Two Different Regulatory Boundaries
 1. Flood Plain District: Delineated by 2014 Flood Maps
 2. Conservancy District: Delineated by 1998 Flood Map

- **Planning Board Requested Staff to Analyze the Level of Impact from Expansion of Floodplain/Conservancy**
 - Two Part Impact Analysis
 - GIS Spatial Analysis
 - Comparative Bylaw Analysis

- **Staff Developed Recommended Changes to the Bylaw**

- **Planning Board Review/Discussion:**
October 14, 2014 October 28, 2014 December 9, 2014 January 13, 2015

POLICY DIRECTION FROM PLANNING BOARD

- **Provide a Balanced Approach:**
 - Discourage development of vacant land within the Flood Plain
 - Allow for expansion, alteration or reconstruction of existing development within the Flood Plain
- **Proactive Flood Hazard Mitigation**
 - Enable property owners to elevate existing structures
 - Remove regulatory obstacles
- **Update & Streamline Certain Provisions of the Bylaw:**
 - Add clarity & remove certain items inappropriate for regulatory oversight under zoning
 - Recognize certain items already regulated under State and local conservation regulations & State building code

RESOURCES

Model Bylaw for Managing Coastal Floodplain Development

Developed by: Woods Hole Sea Grant, the Cape Cod Commission, University of Hawaii Sea Grant

Town of Oak Bluffs Floodplain Overlay District Bylaw

Developed by Town of Oak Bluffs & MA Coastal Zone Management Agency – Local adoption 2010

Town of Hull Freeboard Incentive Program

Proactive property protection/Reduction in flood insurance - Implemented 2009

Comparative Bylaw Analysis

Brewster, Dennis, Duxbury, Harwich, Hull, Marshfield, Orleans, Scituate

Director of Natural Resources and Conservation Agent

Also aware of additional ongoing research and updates:

- *State building code*
- *Coastal erosion*

TERMINOLOGY

FLOODPLAIN: Flood hazard areas identified on the Flood Insurance Rate Map and identified as a Special Flood Hazard Area (SFHA). SFHA are defined as the area that will be inundated by the flood event having a 1-percent chance of being equaled or exceeded in any given year. The 1-percent annual chance flood is also referred to as the base flood or 100-year flood.

BASE FLOOD ELEVATION (BFE): The computed elevation to which floodwater is anticipated to rise during the base flood. The BFE is the regulatory requirement for the elevation or flood proofing of structures. The relationship between the BFE and a structure's elevation determines the flood insurance premium.

AE ZONE: Areas subject to inundation by the 1-percent-annual-chance flood event determined by detailed methods. Mandatory flood insurance purchase requirements and floodplain management standards apply.

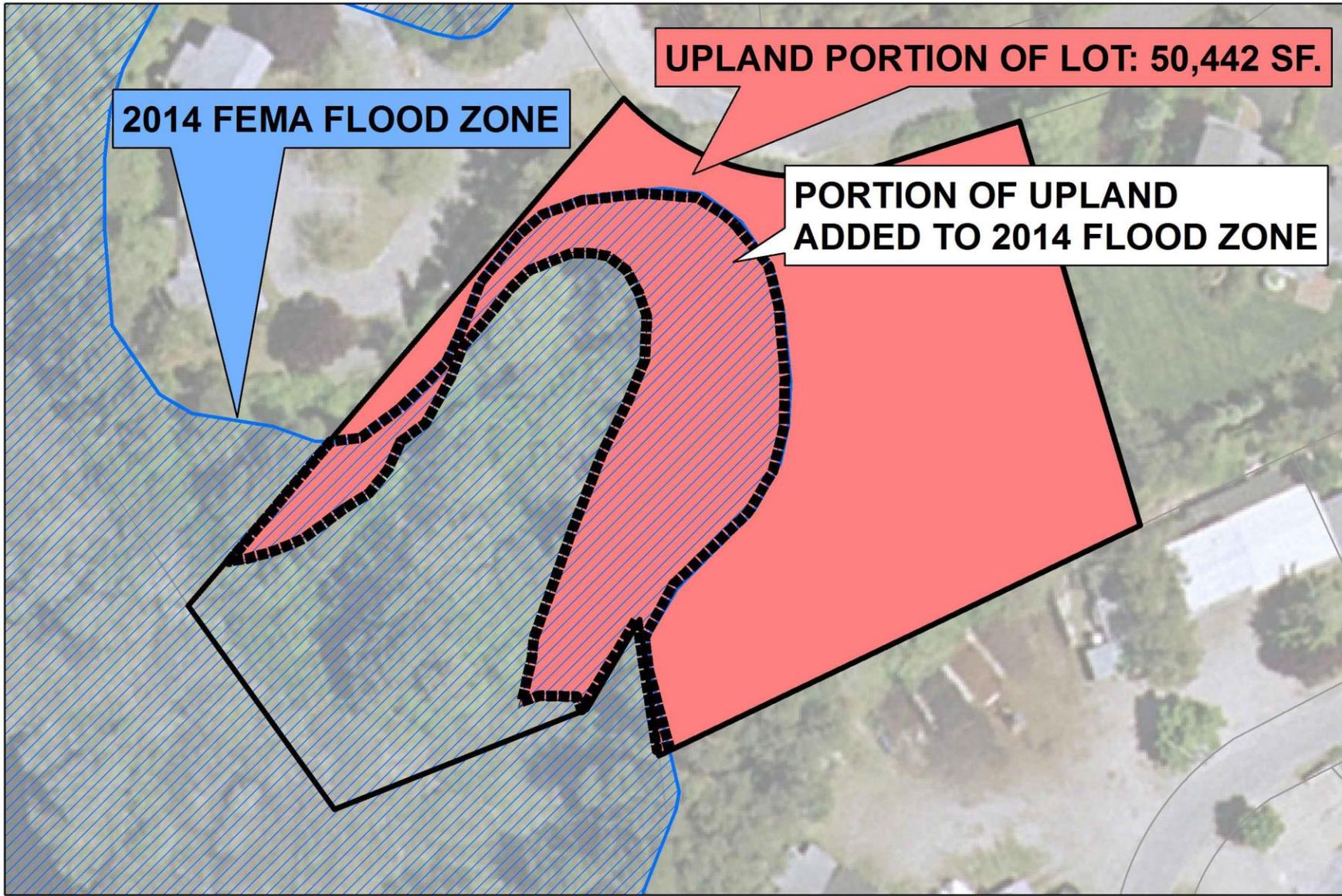
VE ZONE: Areas subject to inundation by the 1-percent-annual-chance flood event with additional hazards due to storm-induced velocity wave action. Mandatory flood insurance purchase requirements and floodplain management standards apply.

CONSERVANCY DISTRICT/SHORELINE PROTECTION DISTRICT: Consisting of two types (Coastal and Inland), delineated by the 100 year flood plain as depicted on FEMA's Flood Insurance Rate Maps and consisting of submerged lands in and under all ponds, wetlands and areas lying below 2 ft. above the natural high water mark of any fresh water body (see Chatham zoning bylaw section IV, page 29 for gull description).

LAND SUBJECT TO COASTAL STORM FLOWAGE: Land subject to any inundation caused by coastal storms up to and including that caused by the 100-year storm, surge of record or storm of record, whichever is greater. *(A term used in State & Local wetlands protection regulations.)*

VACANT LOT ANALYSIS METHODOLOGY

[MapsOnline Analysis Site](#)



VACANT LOT
TOTAL AREA: 72,784 SF.
UPLAND AREA: 50,442

VACANT LOT ANALYSIS METHODOLOGY

RESULTS

VACANT LOTS WITHIN 2014 FLOOD ZONE MINIMUM 20,000 S.F.: 99

VACANT LOTS WITH MINIMUM 20,000 S.F. UPLAND: 28

--- 28 of 99 VACANT LOTS POENTIAALLY DEVELOPABLE UNDER PROPOSED BYLAW ---

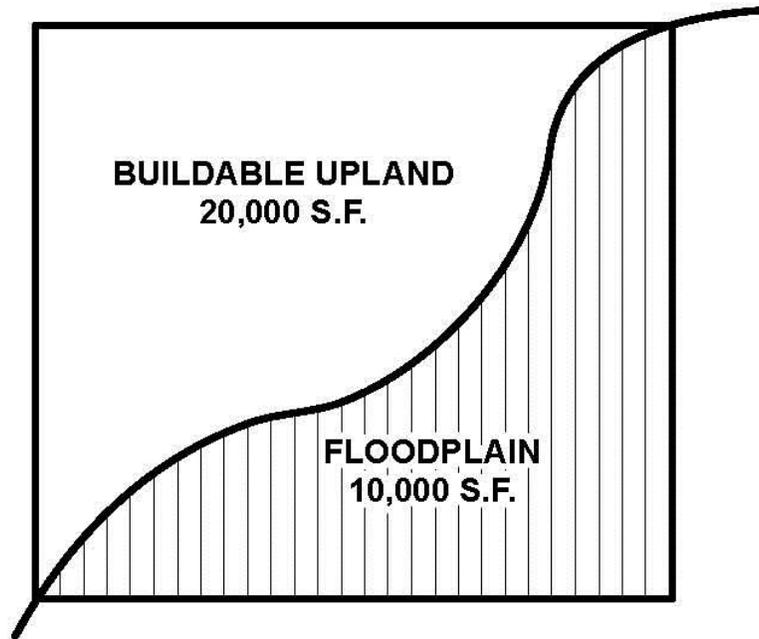
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UNDEVELOPED LOTS WITHIN FLOOD PLAIN DISTRICT

CONCEPTUAL ILLUSTRATION FOR VACANT LOTS WITHIN FLOOD PLAIN DISTRICT

BEFORE 7/16/14

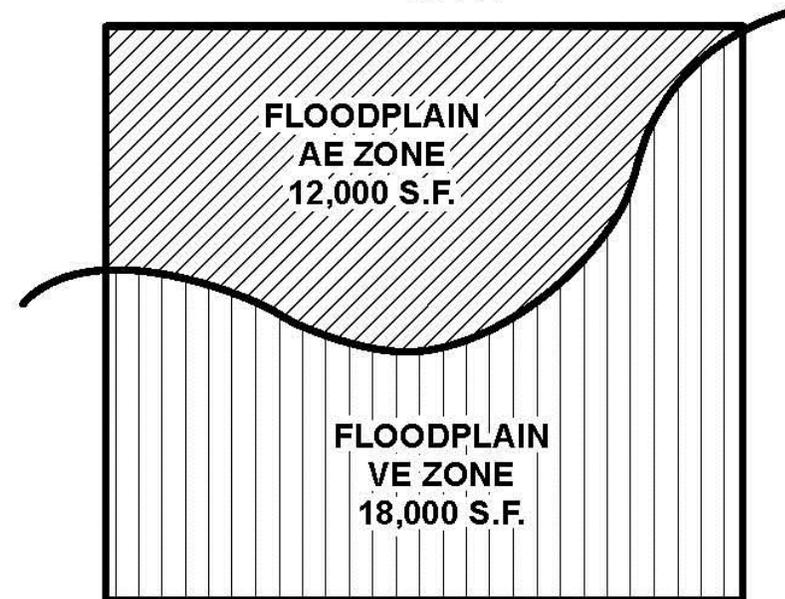
LOT A



- TOTAL LOT AREA = 30,000 SF
- UPLAND AREA = 20,000 SF
- FLOODPLAIN AREA = 10,000 SF
- LOT = BUILDABLE

AFTER 7/16/14

LOT A



- TOTAL LOT AREA = 30,000 SF
- LOT REMAINS BUILDABLE
- DEVELOPMENT LIMITED TO 12,000 SF LOCATED IN AE ZONE

EXISTING AND PROPOSED BYLAW COMPARISONS

FENCES / PATHS & DRIVEWAYS

| USE | EXISTING BYLAW | | | PROPOSED BYLAW | | |
|--------------------------------|----------------|------------|----------------|----------------|------------|----------------|
| | PERMITTED | PROHIBITED | SPECIAL PERMIT | *PERMITTED | PROHIBITED | SPECIAL PERMIT |
| Fences | | | X | X | | |
| Maintenance: Existing Driveway | X | | | X | | |
| Construction: New Driveway | | | X | X | | |
| Construction: Unpaved Trails | | | X | X | | |

* **Driveways/Trails:** Construction must use pervious materials and incorporate proper flood mitigation measures.

Fences: Installation must incorporate proper design for flood mitigation and habitat maintenance (60% solid and 6 inches above grade)

ALTERATIONS/EXPANSIONS/NEW CONSTRUCTION

Under Current Bylaw: Structures Located Within Conservancy District Could Be Altered or Expanded (*including demolition and new construction*) via Special Permit as a Pre-existing Nonconforming Structure.

Extending Current Bylaw Construction Prohibition to 2014 Floodplain: All Existing Structures Would Become Pre-existing Nonconforming and Could Be Altered, Expanded, or Demolished and Reconstructed by Special Permit.

Under Proposed Bylaw

- A Special Permit Required for Alterations, Expansions, Demolition/New
- Construction
- No New Construction Allowed in VE Zone
- Current Level of Protection Maintained Without Creating New Pre-existing Non-conformities

Number of Impacted Dwellings:

- Dwellings in Floodplain Prior to 7/16/14: **458**
- Dwellings Added to Floodplain as of 7/16/14: **242**

ALTERATIONS / EXPANSIONS / NEW CONSTRUCTION

| USE | | EXISTING BYLAW | | | PROPOSED BYLAW | | |
|---|---------|----------------|------------|----------------|----------------|------------|----------------|
| | | PERMITTED | PROHIBITED | SPECIAL PERMIT | PERMITTED | PROHIBITED | SPECIAL PERMIT |
| New residential/non-residential construction <i>* Requires minimum 20,000 sf. upland prior to 7/16/14</i> | VE ZONE | | X | | | X | |
| | AE ZONE | | X | | | | *X |
| Construction of functionally dependent structures | | | | X | | | X |
| Repair existing structures <i>(not substantial improvement)</i> | | X | | | X | | |
| Replace/repair existing impervious surfaces | | | | X | X | | |
| Elevation of primary structure for flood hazard mitigation <i>(>20 ft. but < 30 ft.)</i> | | X | | | X | | |
| Addition/alteration increase to building footprint or substantial improvement <i>*pre-existing non-conforming</i> | | | | *X | | | X |
| Use of Structural Fill | | | X | | | X | |

CURRENT BYLAW

Within 1992 Flood Plain & Conservancy
& remains in 2014 Flood Plain

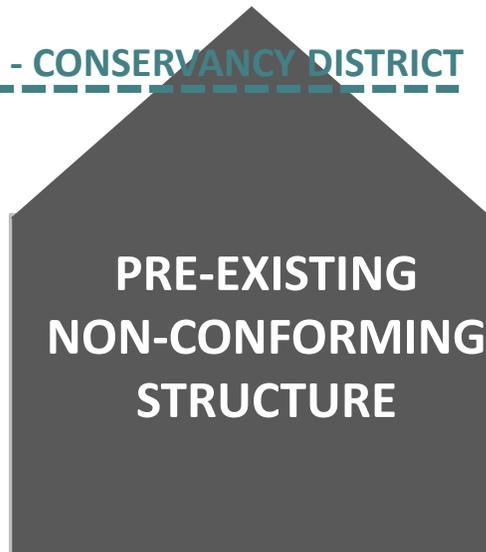
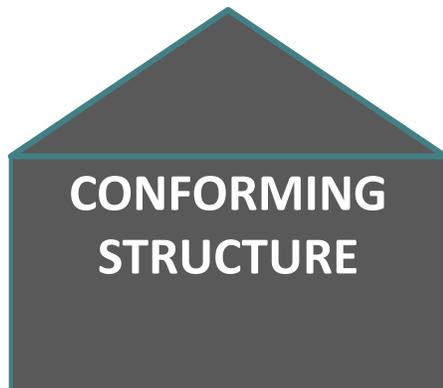
REQUIRES VARIANCE TO
ELEVATE ABOVE 20 FT.

CAN ELEVATE UP TO 30 FT.
VIA SPECIAL PERMIT

MOST VULNERABLE STRUCTURES
PENALIZED BY HEIGHT RESTRICTION

30 FT. MAXIMUM HEIGHT LIMIT - TOWN WIDE

20 FT. MAXIMUM HEIGHT LIMIT - CONSERVANCY DISTRICT



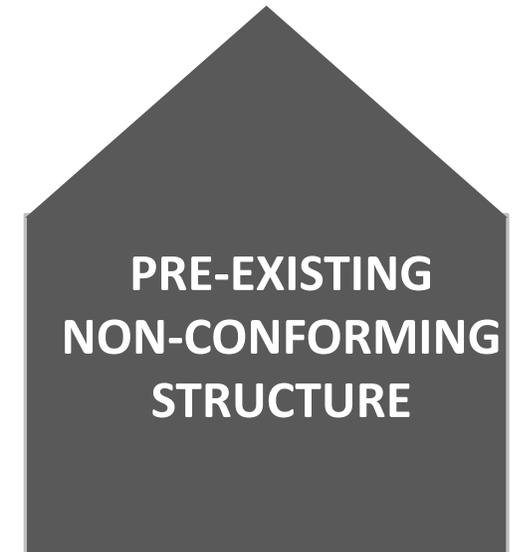
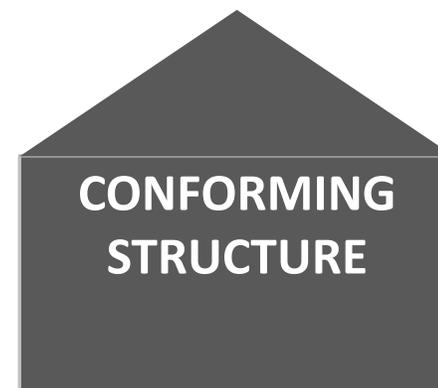
CURRENT BYLAW

Outside 1992 Flood Plain & Conservancy
Added to 2014 Flood Plain

CAN ELEVATE UP TO 30 FT.

CAN ELEVATE UP TO 30 FT.

30 FT. MAXIMUM HEIGHT LIMIT - TOWN WIDE



PROPOSED BYLAW

Within 2014 Flood Plain and Shoreline Protection District

CAN ELEVATE TO 30 FT.

CAN ELEVATE TO 30 FT.

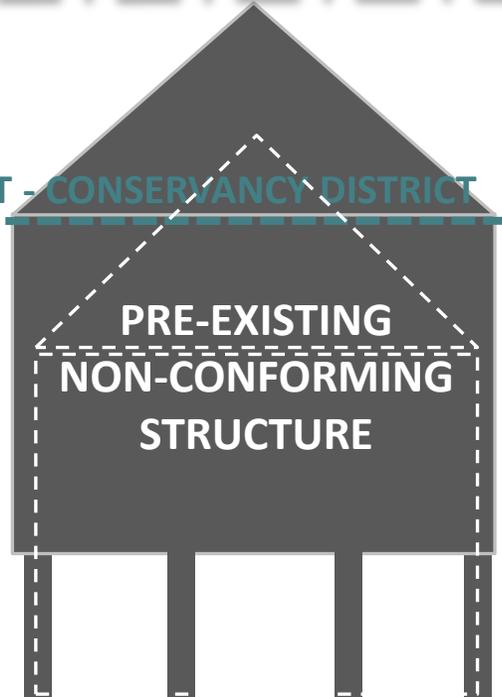
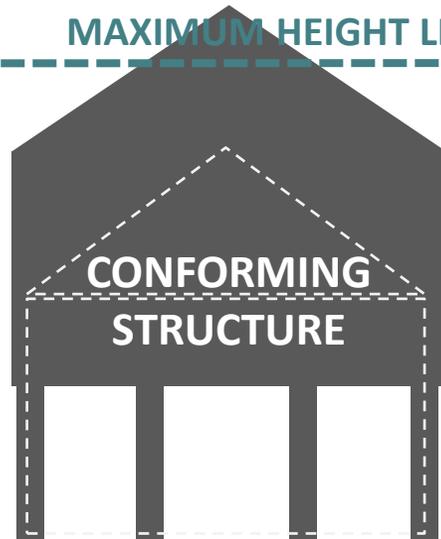
MAXIMUM HEIGHT LIMIT - TOWN WIDE

30 FT.

PRIMARY STRUCTURES PERMITTED TO ELEVATE.
20 FT HEIGHT LIMIT STILL APPLIES TO
ACCESSORY STRUCTURES → 20 FT.

MAXIMUM HEIGHT LIMIT - CONSERVANCY DISTRICT

20 FT.



OVERVIEW OF PROPOSED AMENDMENTS

SHORELINE PROTECTION DISTRICT

- Includes Inland & Coastal Areas – Coastal Boundary Will Match 2014 FEMA Maps
- 30 ft. Limit Still Applies -20 Ft. Height Restriction Removed for Primary Structures
- Construction/Maintenance of Driveways & Roadways = Permitted Use - Pervious Material Required
- Unpaved Trails and Fences = Permitted Use - Proper flood Mitigation Required

FLOOD PLAIN DISTRICT – MORE STRINGENT STANDARDS

- VE Zone Construction Standards Required for AE Zone/Development in 50 Ft. Setback = Most Restrictive
- Additional Evaluation Criteria for Special Permit

UNDEVELOPED LOTS:

- More Stringent Development Standards
- New Development: \geq 20,000 sf. Buildable Upland Required Prior to 2014 Map Adoption
- Development Limited to Portions of Lot Within AE Zone

NEW ITEMS:

- Permitted Uses/Special Permit Uses/Prohibited Uses/Special Permit Criteria
- Updated Language in Development Regulations Section to Improve Mitigation

SUMMARY

- Impact of Approved 2014 Flood Plain Are Understood
- Recommendations Based on Detailed Analysis, Best Practices, Staff Coordination
- Restores One Regulatory Boundary
- Limits New Development
- Preserves Existing Property Development Rights
- Sensitive to Existing Development in Flood Plain Enables/Encourages Flood Hazard Mitigation

COMMUNITY APPROACH

Protection, Welfare and Safety Concerns Applied to Existing Undeveloped and Developed Areas

DISCUSSION/NEXT STEPS
