



EAST BATON ROUGE **STORMWATER MASTER PLAN**

UNDERSTAND. PLAN. IMPLEMENT.

Codes & Ordinance Recommendations

Metro Council

January 2023

Agenda

- Goals of SMP Codes & Ordinances Recommendations
- Methodology for Developing Recommendations
- Recommended Changes:
 - Update rainfall depths in design criteria
 - Floodplain conveyance zones
 - Community defined SFHA's & FE's
 - Fill mitigation
 - Overland flow conveyance checks
 - Multi-stage detention
 - Stream setbacks

Goals for Policy Recommendations

- All new development (public and private) - no adverse flooding impact within or adjacent to the developed property
- Encourage more flood-resilient development:
 - Where and how development should occur
 - Utilizing new science and technology to evaluate the potential impacts of proposed development
 - Adjusting regulations to better align with current and future flood risk.



Methodology - Evaluation

SMP models were used to analyze flood risk to better understand when, where, and why flooding occurs and to evaluate different recommendations.

RECOMMENDATIONS	ROOT CAUSES OF FLOODING					
	DEVELOPMENT IN FLOODPLAIN		CLIMATE CHANGE	URBANIZATION		
	Establish Floodplain Conveyance Zones	Floodplain Fill Mitigation Updates	Minimum first floor elevation 1 foot above FEMA BFE or Max. Water Surface Elevation in 100-yr Event	Update Rainfall Depths	Require Through-Site Drainage Overland Flow Check	Require Internal Drainage Overland Flow Check
					Require Multi-Stage Detention	Capture First Flush with Green Infrastructure
						Establish Stream Setback



Methodology – Stakeholder Engagement

Review, input and feedback from public, the Project Steering Committee, and the Stakeholder Policy Group, which included:

- Federation of Greater Baton Rouge Civic Associations
- Baton Rouge Growth Coalition
- Baton Rouge Area Chamber
- EBR Planning Commission
- Greater Baton Rouge Homebuilders Association
- BREC
- Urban Land Institute...and More.



Codes & Ordinances

Proposed Policy Changes



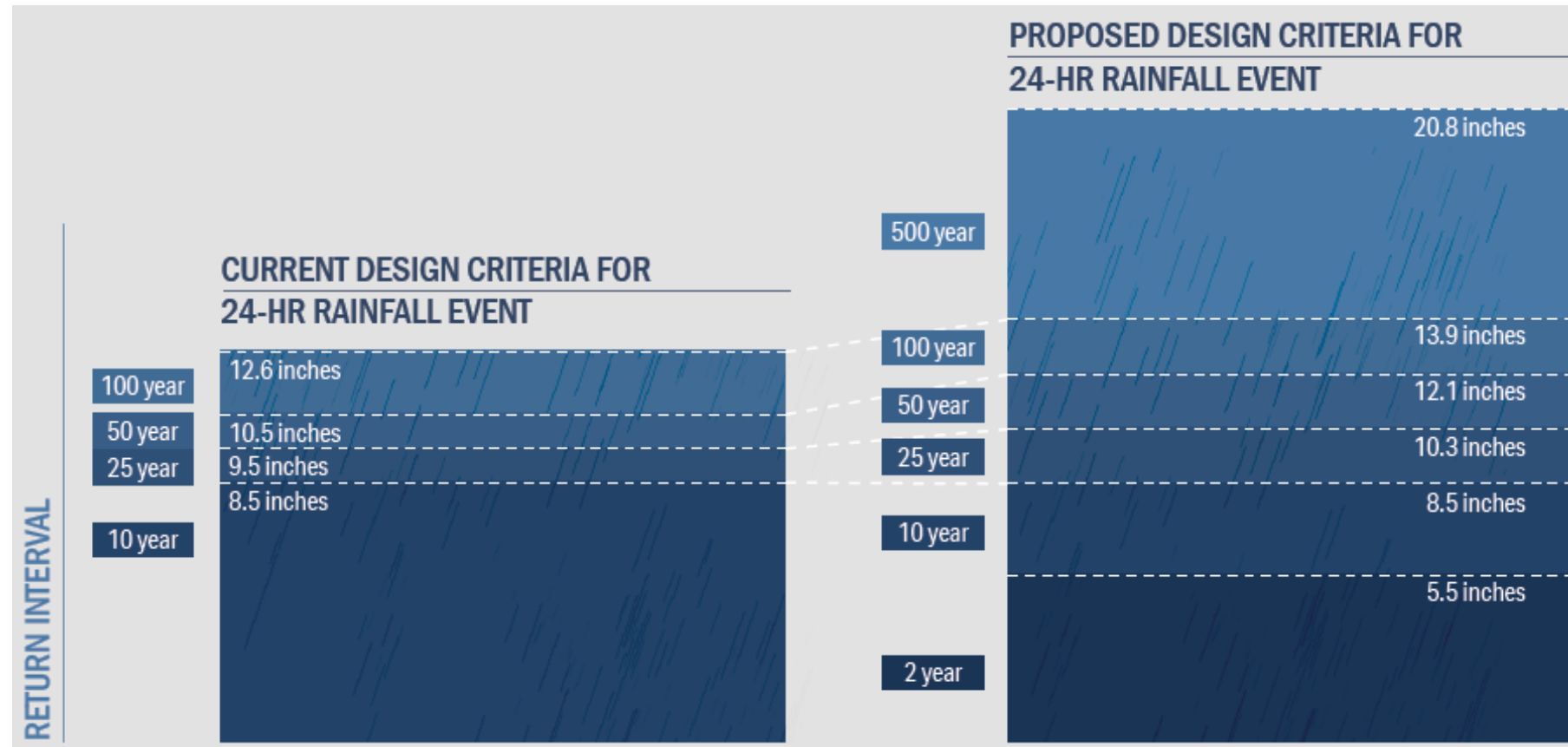
Update Rainfall Depths in Design Criteria

Problem Addressing: Rainfall Increases in frequency and intensity result in more water, more often, leading to an increased flood risk

Recommendation

Benefits:

- Ensure new development drainage systems are sized appropriately.
- Guidance can be re-evaluated every five years to include latest available data.



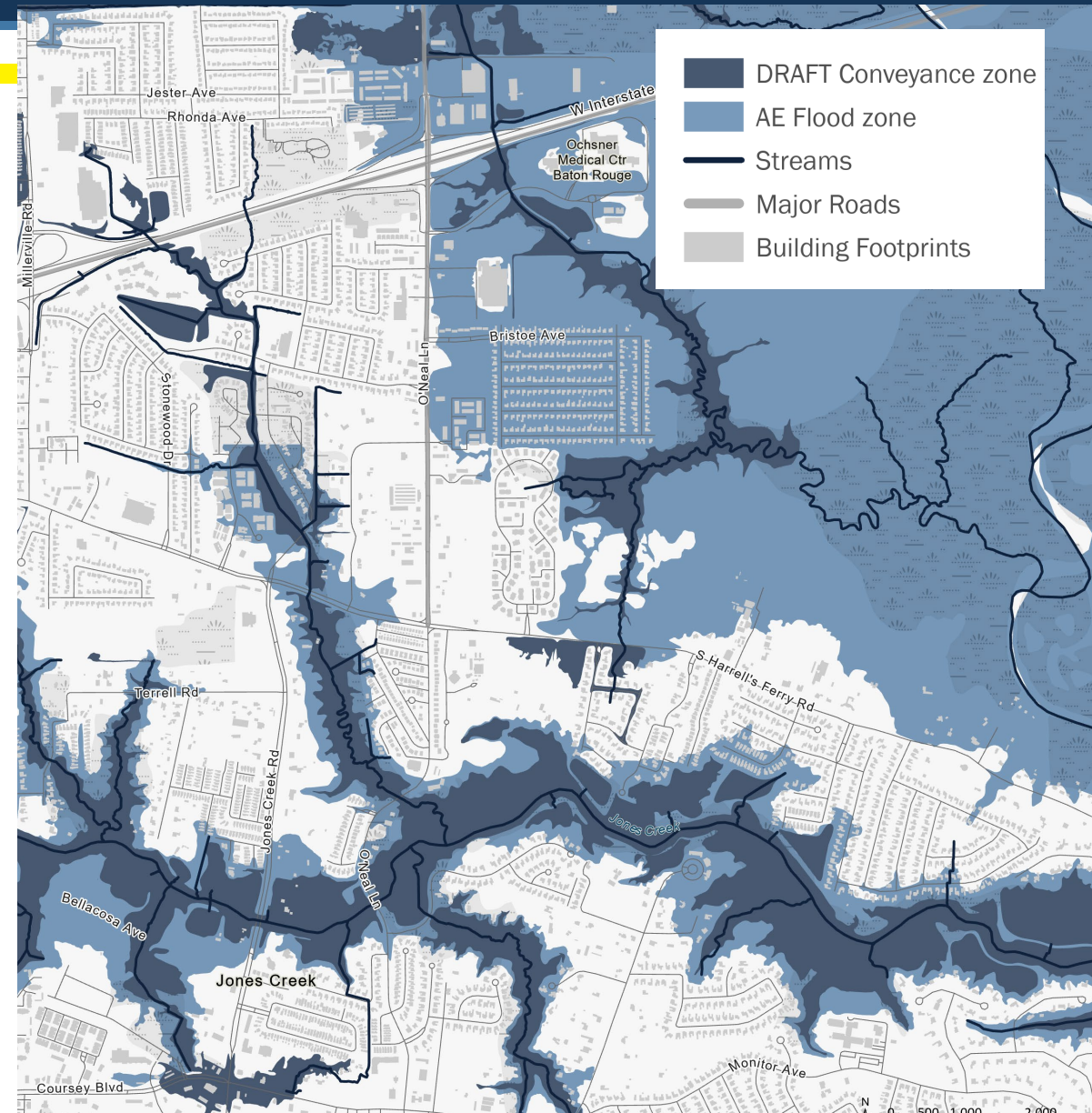


Floodplain Conveyance Zones with Off-site Drainage Assessment

Problem Addressing: Development activities that increase flood risk for surrounding properties.

Recommendation Benefits:

- Limits impact (0.0 feet) from proposed land development
- Off-site Drainage Assessment (ODA) – clear, efficient, and quick turnaround
- Allows for discussion with developers on results and alterations to achieve no impact
- Promotes more resilient new development by incorporating the natural functions of the floodplain

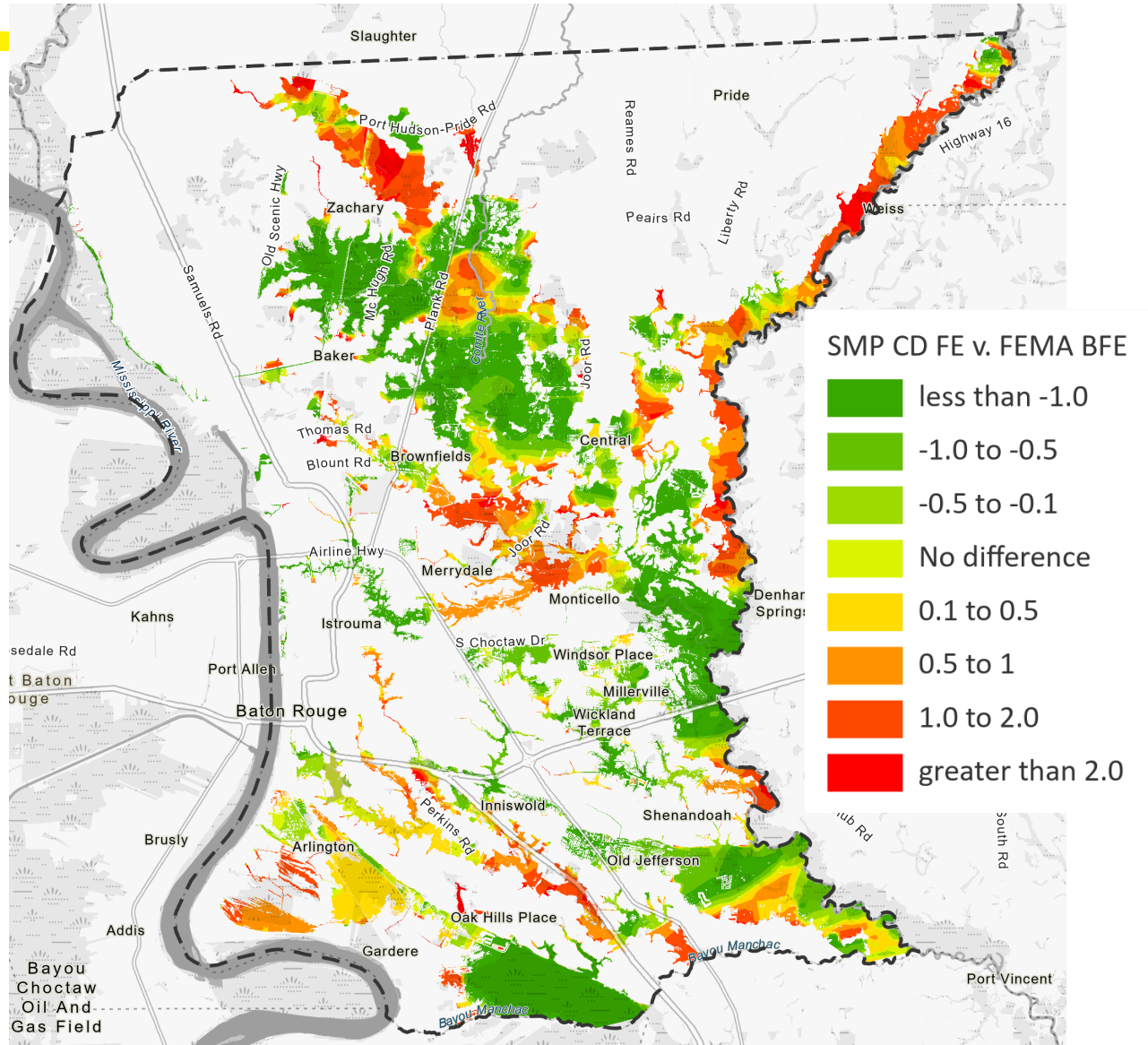




Community Defined Special Flood Hazard Areas + Flood Elevations

Problem Addressing: FEMA flood maps are, in some cases, inaccurate and out-of-date, resulting in some structures built too low with enhanced flood risk.

Recommendation Benefits: Ensure new development is built to an elevation based on the most accurate data as well as on future potential increases in rainfall.

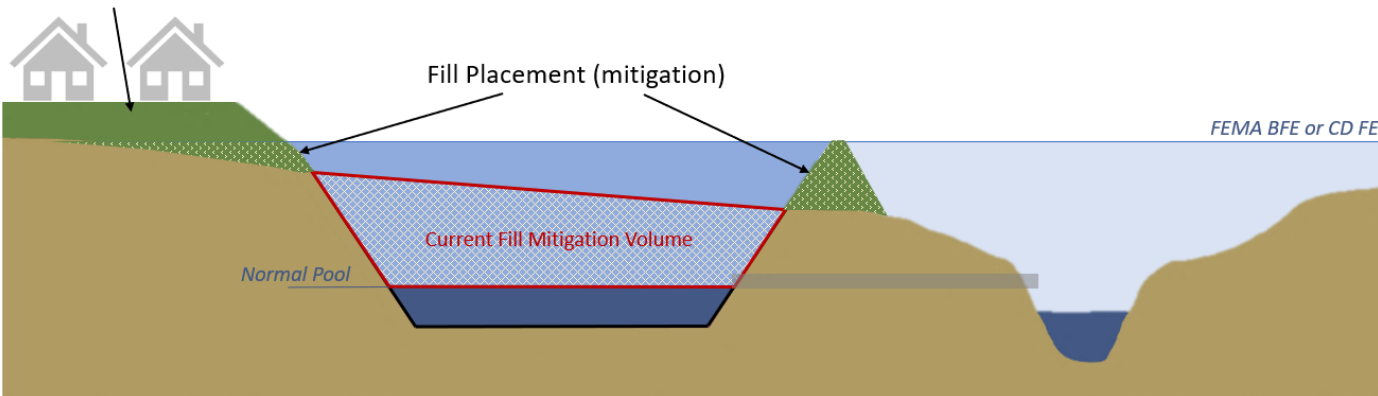




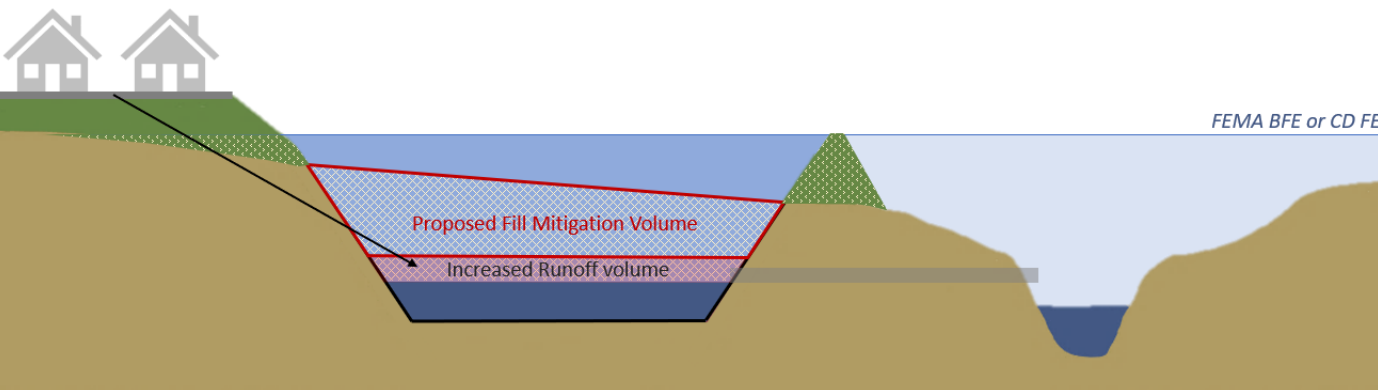
Fill Mitigation

Problem Addressing: Floodplain fill not properly mitigated reduces the floodplain storage capacity pushing floodwater elsewhere.

Fill Placement (no mitigation)



Increased Impervious Area



Recommendation

Benefits:

- Improves the resilience of future developments
- Preserves the flood storage capacity of our floodplain, so that drainage systems aren't overwhelmed during rainfall events.



Through-Site Drainage Overland Flow Conveyance Check

Problem Addressing:

Developments that block or change the way stormwater flows from surrounding areas through the development site.

Recommendation Benefits:

- Applies to all new developments.
- Ensure new developments do not increase flood risk for surrounding properties.





Internal Drainage Overland Flow Conveyance Check

Problem Addressing: Improperly designed drainage systems don't allow outflow of water in extreme events which results in flooding within a development.

Recommendation Benefits: Ensure excess rainfall in extreme events has a path(s) to the downstream drainage system before flooding structures.



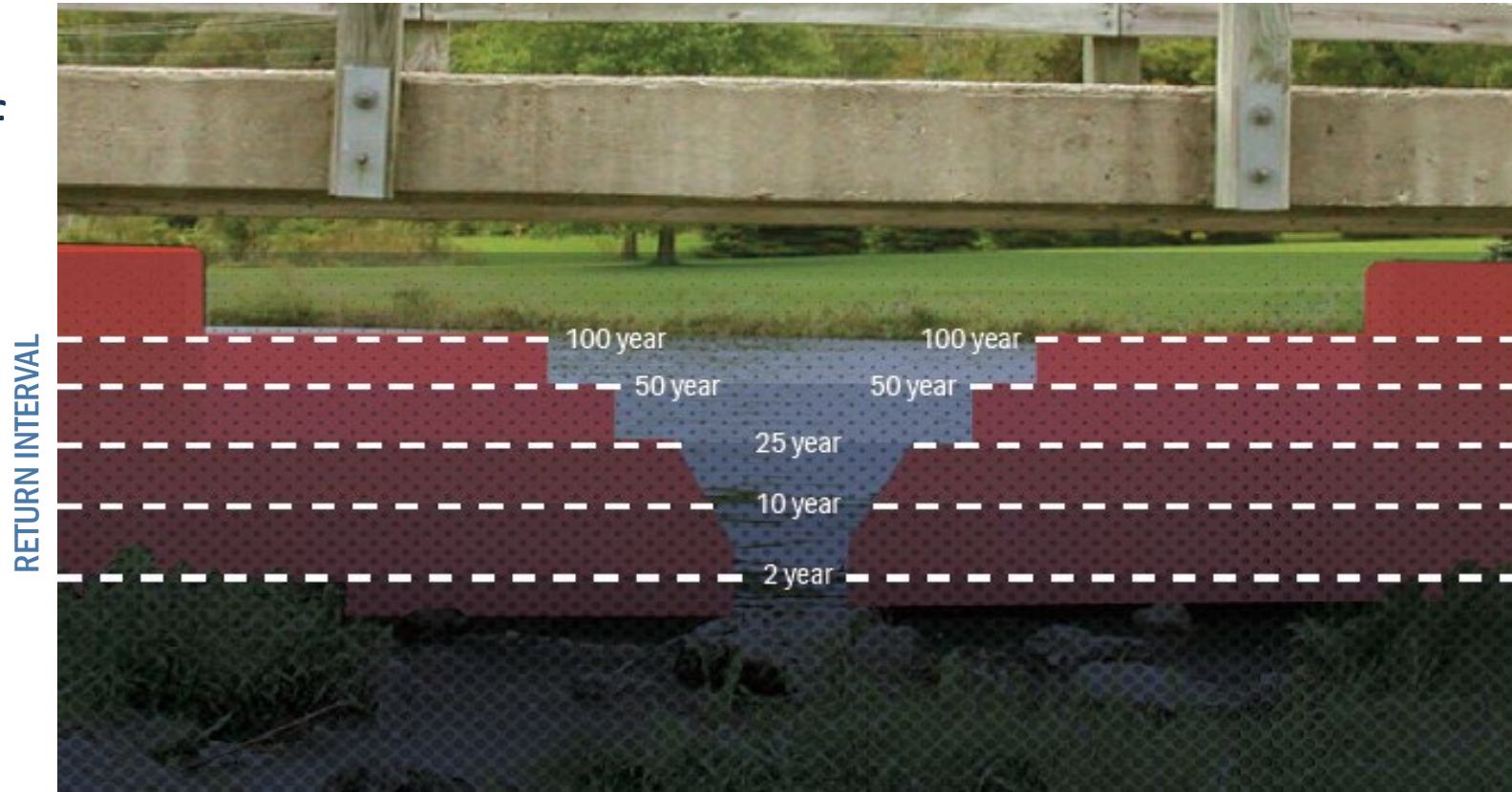


Multi-Stage Detention

Problem Addressing: Channel erosion and downstream flooding from frequent and extreme rainfall events.

Recommendation Benefits:

- Helps slow down the flow of stormwater during multiple storm events, so that it doesn't overwhelm downstream drainage systems.
- Requires no change to the downstream systems' performance.



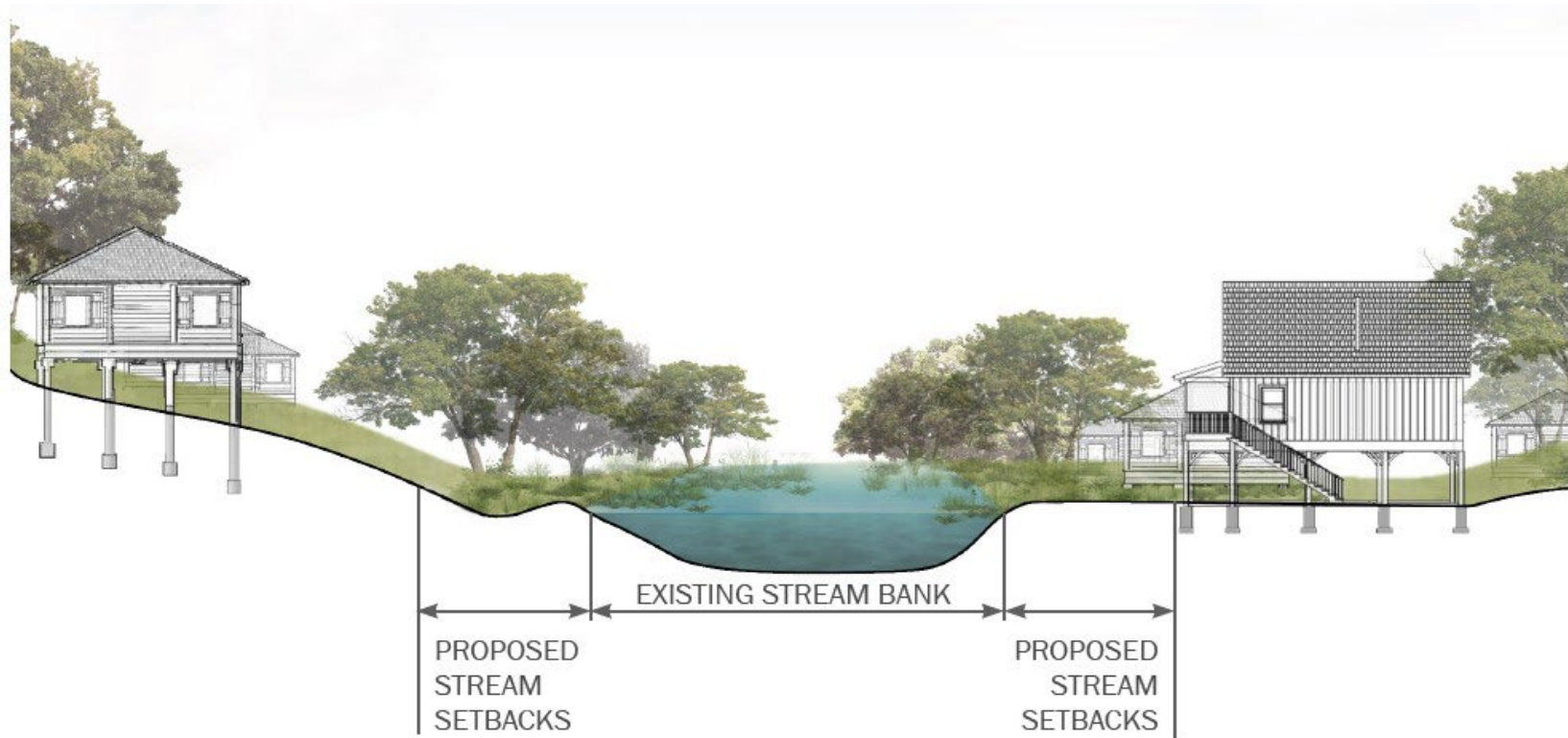


Stream Setback

Problem Addressing: Building up to channel banks can result in complications due to erosion and runoff, habitat loss, and lack of access for future channel improvements.

Recommendation Benefits:

- Based on national and regional best practices.
- Stream setbacks will count towards yard and open space requirements.
- includes a limited variance process.



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