# APPENDIX D: Progression of Refining Goals

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# Ch. 3 Introduction & Overview

## Floodplain Management Practices & Flood Protection Goals

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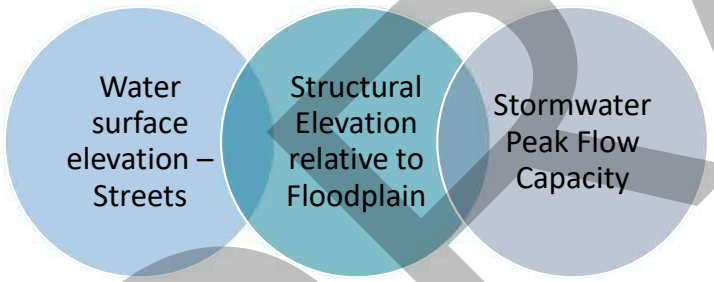
# Standards vs. Goals

## Standards

Establish consistent protocols for floodplain management that can be universally applied

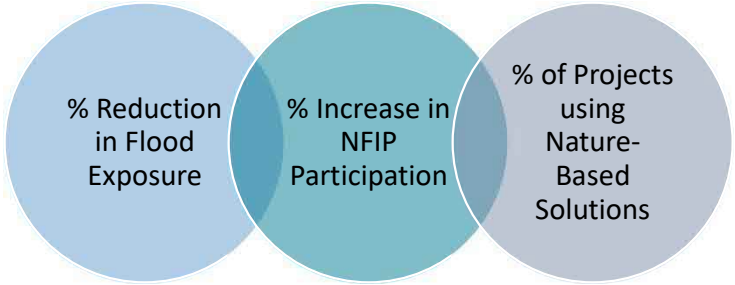
*Examples:*




## Goals

Set specific timelines and goalposts to implement proven flood mitigation measures, reducing future risk for people and property.

*Examples*:




Must be measurable and have a timeframe!

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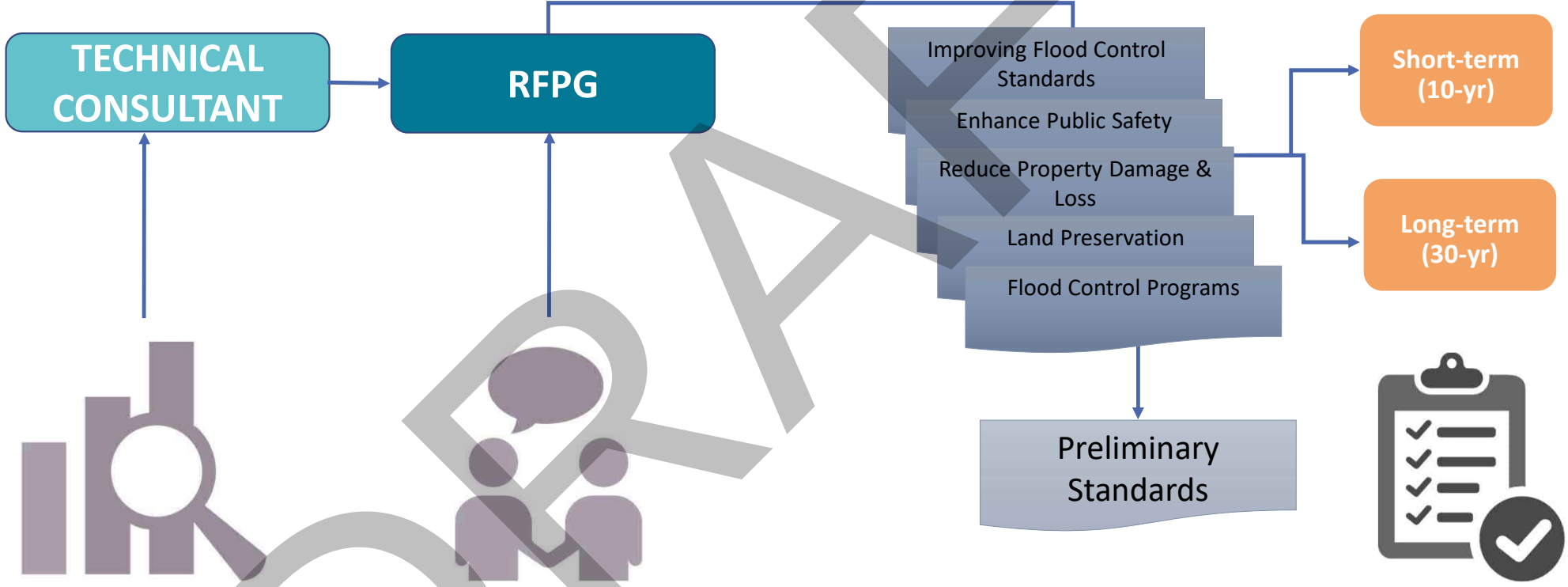
# Goal Setting Process

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# TWDB Guidance - The Givens

**What does TWDB hope to achieve with this plan?**

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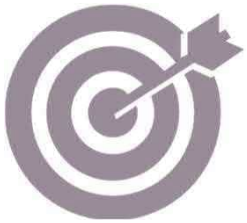
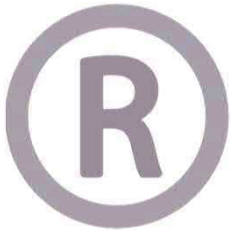
# Goals Must Be:



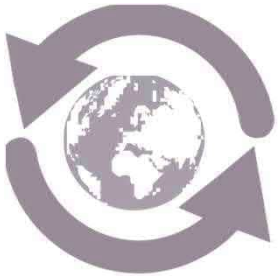
Specific &
Achievable

Reduce Residual
Risk



Recommended
or
Required

Short-term (10 years)
&/or
Long-Term (30 years)



Regionwide
Or Subregional

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# POLL EVERYWHERE

We will be using remote audience engagement tool **Poll Everywhere** during today's meeting. Please participate using one of the following methods:

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# Please choose one word that describes your top priority for the Regional Flood Planning Effort.

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**Please choose one word that describes your top priority for the Regional Flood Planning Effort.**

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# Improving Flood Control Standards

A) Local Floodplain ordinance that meets the NFIP standards

B) Participation in NFIP Program

C) Standards greater than NFIP

D) Regulation to future flood conditions

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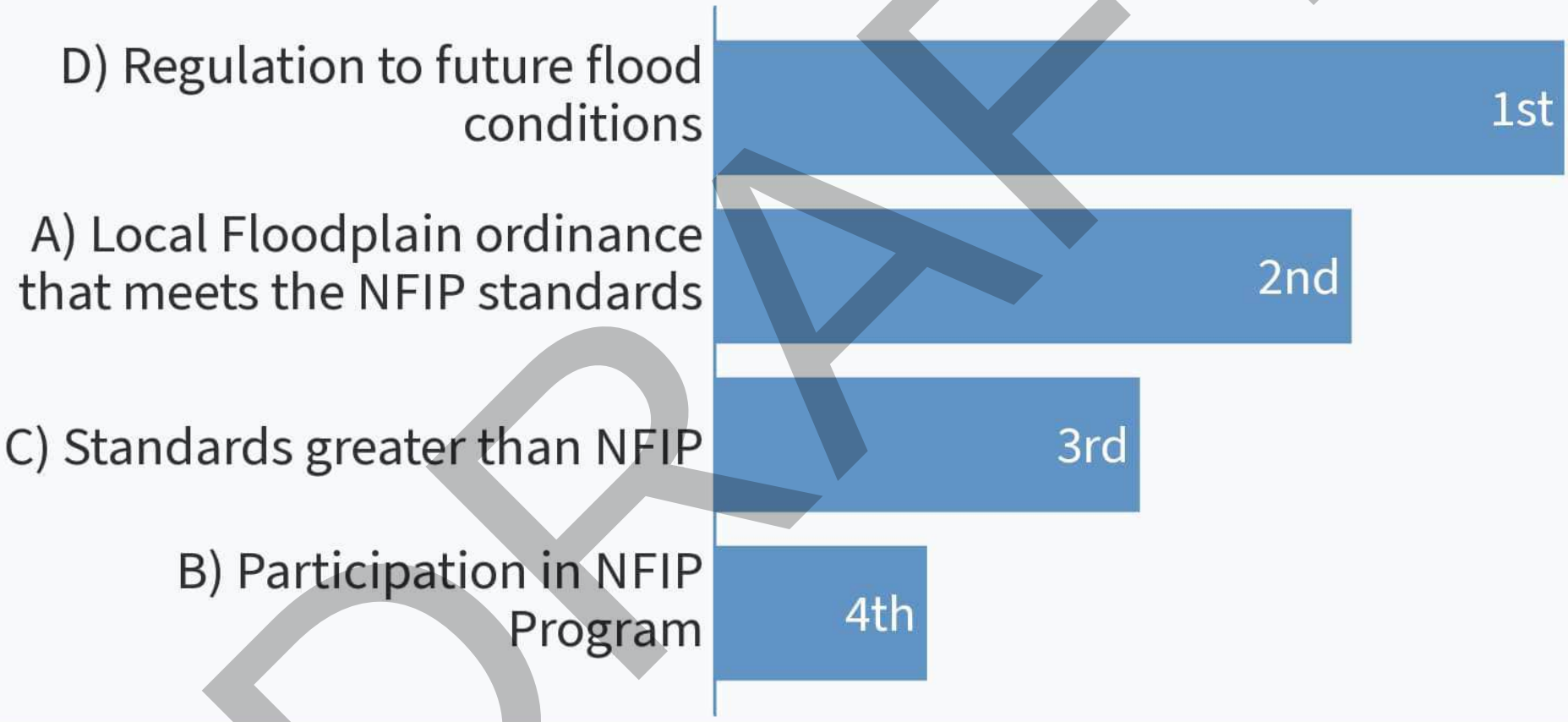
# Improving Flood Control Standards

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# Enhancing public safety

A) Improving Low Water Crossings

B) Installing Flood warning systems

C) Reducing the number of flood related injuries

D) Reducing the number of flood related deaths

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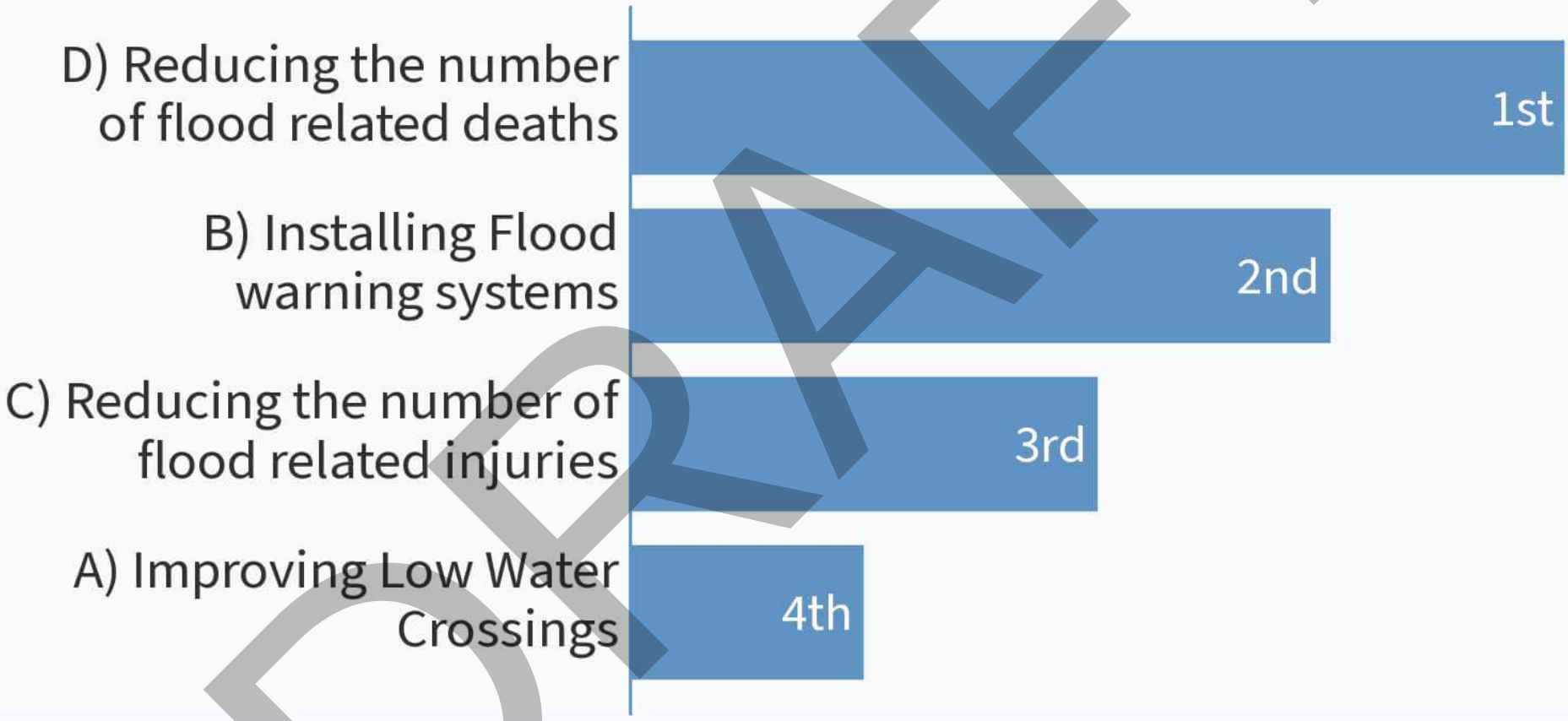
# Enhancing public safety

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# Reducing Property Damage and Loss

A) Avoiding new development in floodprone areas

B) Reducing flood risk to existing structures

C) Reducing flood risk to agricultural and ranching areas

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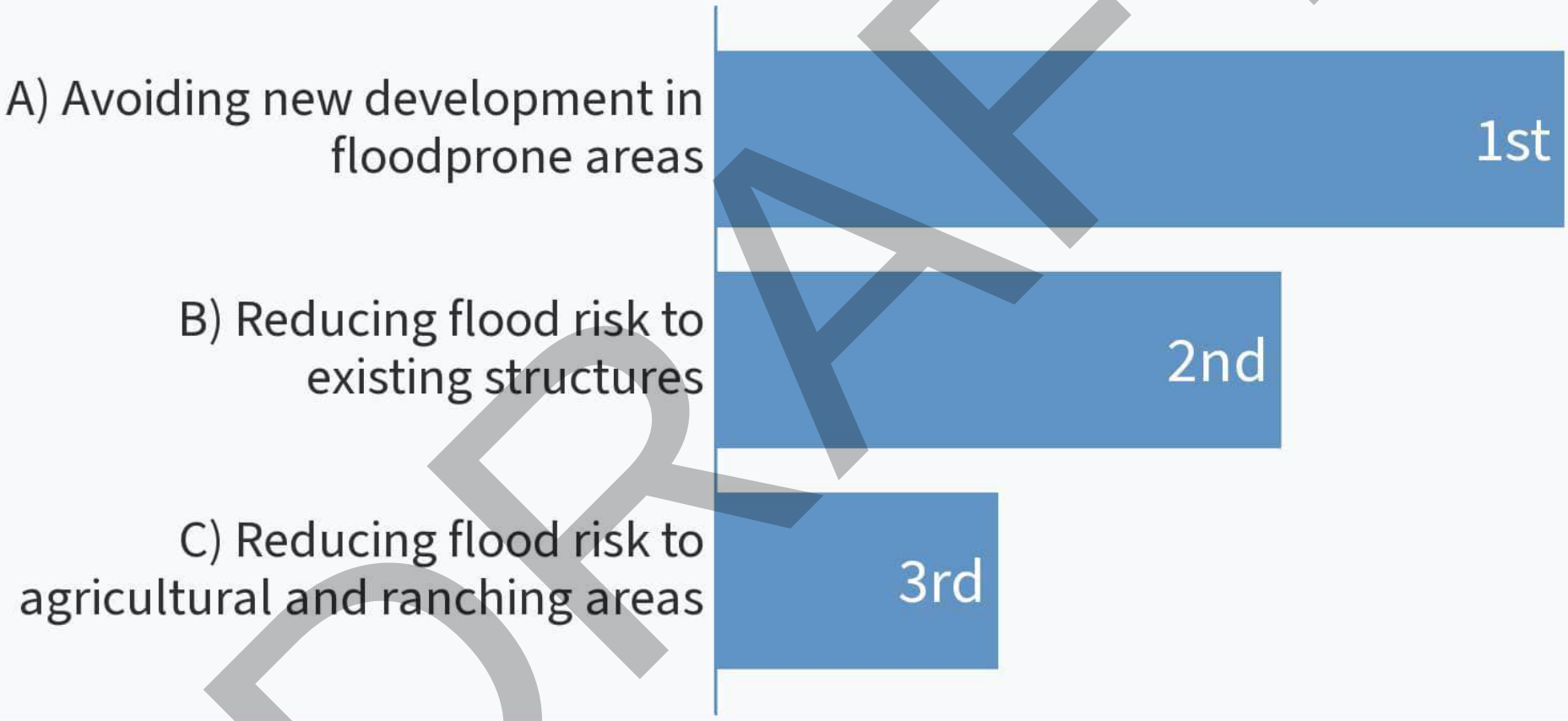
# Reducing Property Damage and Loss

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# Land Protection

A) Protection of Natural Areas

B) Reducing flood-related loss of natural and cultural resources

C) Preservation of Floodplains

D) Use of nature based practices to promote flood control

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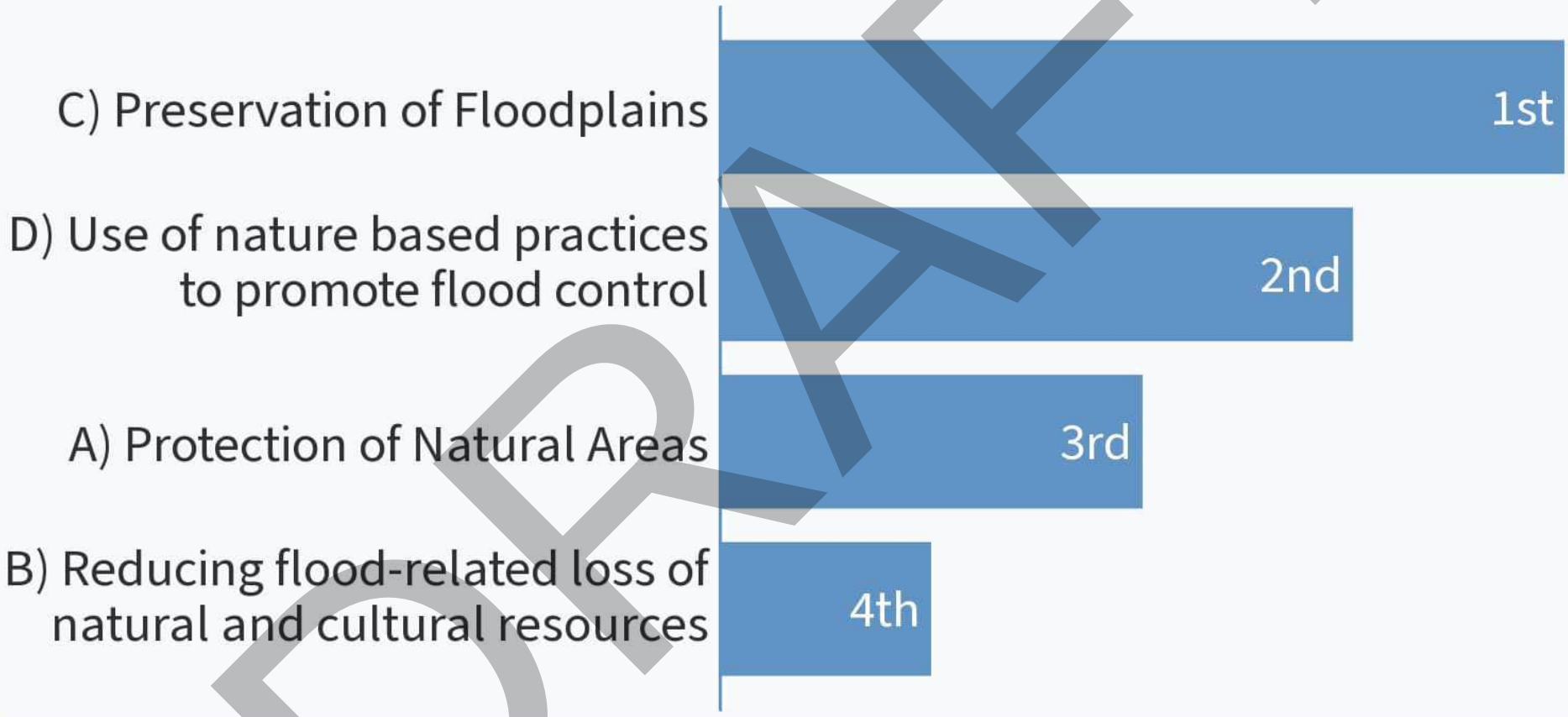
# Land Protection

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# Flood Control Programs

A) Increasing flood hazard data coverage (maps and models)

B) Continuous funding mechanism

C) Asset management plans

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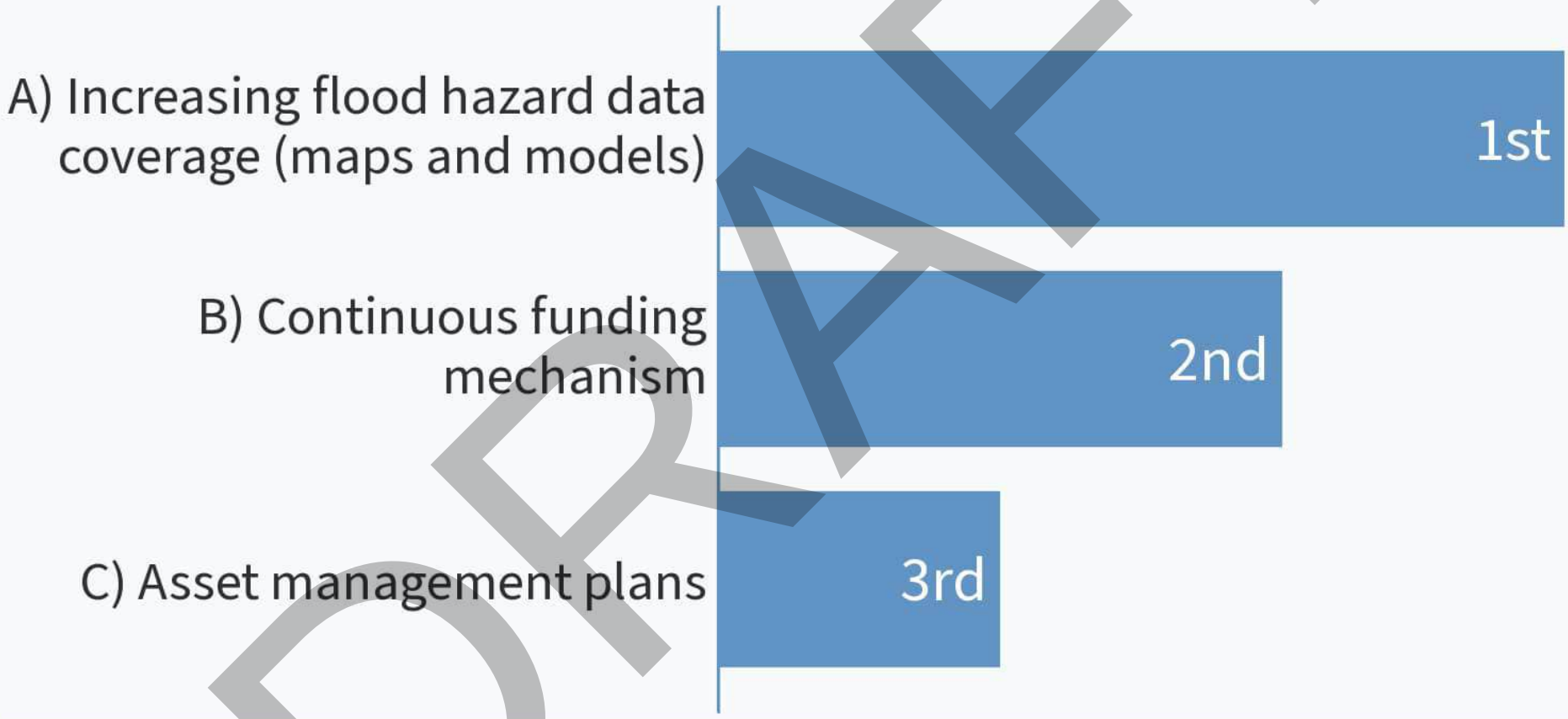
# Flood Control Programs

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# From the goal categories discussed, please rank the categories you believe will yield the highest value for this planning effort

A) Improving Flood Control Standards

B) Enhancing Public Safety

C) Reducing Property Damage & Loss

D) Flood Control Programs

E) Land Protection

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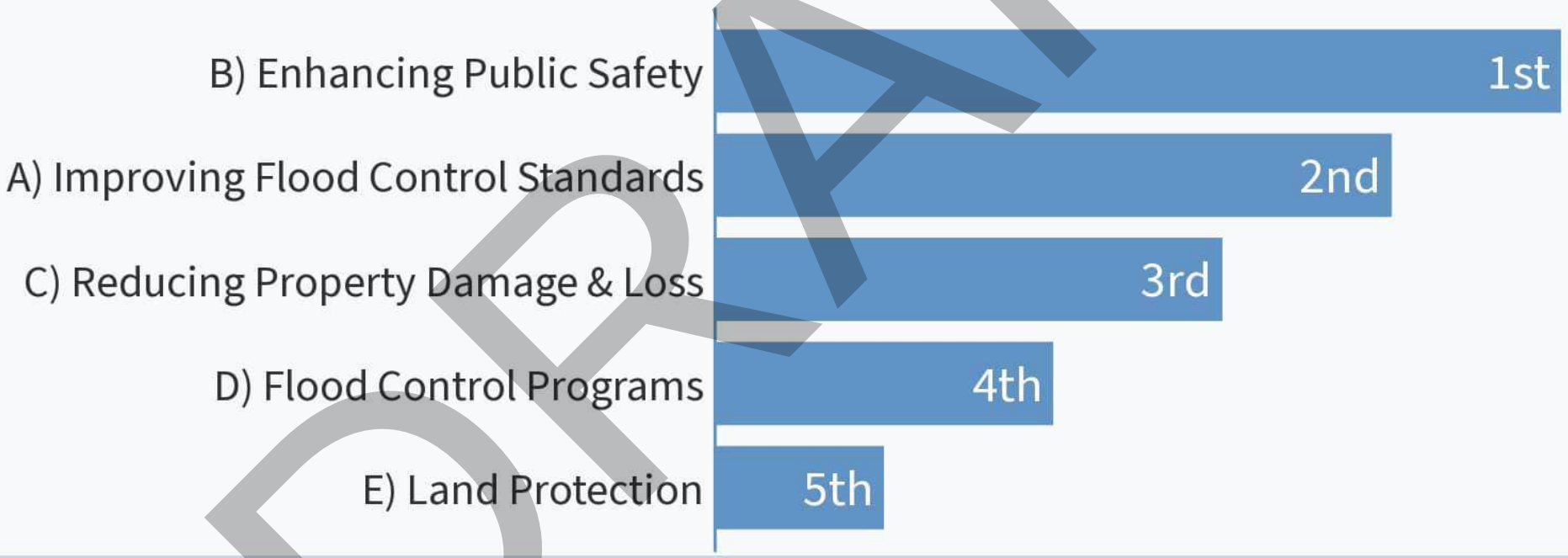
# From the goal categories discussed, please rank the categories you believe will yield the highest value for this planning effort

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# Please share some of your thoughts and ideas!

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# Please share some of your thoughts and ideas!

“ Funding to undeveloped areas for data ”

“ Emphasis in reaching non public sector stakeholder throughout the process ”

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# What will we do with your input?

At our August meeting, we will present you with draft goals for your approval that incorporate the feedback today, the results of our research and the TWDB's guidance for measurable plan goals

| Example Goals | | | | |
|---|---|---|---|---|
| Goal | Term of Goal | Target Year | Applicable to | Overarching Goal |
| 50% of the region's population is part of a municipality that has a dedicated funding mechanism for drainage projects. | Short Term | 2033 | Entire Region | Protect against the loss of life and property |
| Consider and incorporate nature-based practices in flood risk reduction projects. | Short Term | 2033 | Entire Region | Protect against the loss of life and property |
| Enroll 50% of non-participating communities into the National Flood Insurance Program. | Short Term | 2033 | Entire Region | Protect against the loss of life and property |

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# Ch. 3 Goals Discussion/ Determination

## Floodplain Management Practices & Flood Protection Goals

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The following are suggested ideas for discussion on August 19th. Please come prepared to discuss.

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# Task 3-Goals

## Purpose and Intent

The purpose of this task is to identify flood mitigation and floodplain management goals for the Trinity region. The overarching intent of the goals is "to protect against the loss of life and property" set out in Guidance Principles in 31 TAC §362.3 to 1) identify and reduce the risk and impact to life and property that already exists, and 2) avoid increasing or creating new flood risk by addressing future development within the areas known to have existing or future flood risk.

## Overarching Goals

The overarching goals are intended to guide the development of the Flood Management Strategies (FMSs), Flood Management Evaluations (FMEs), and Flood Mitigation Projects (FMPs) for the Trinity Regional Flood Planning region. They build upon TWDB regional flood planning guidance and provide a comprehensive organization structure for future strategy development to adequately provide for the preservation of life and property, while not negatively affecting neighboring areas. These proposed six overarching goals include:

- Improving Flood Warning & Public Safety
- Improving Flood Analysis
- Reducing Property Damage & Loss
- Protecting the Floodplain
- Flood Infrastructure Improvement
- Expanding Flood Education & Outreach

The overarching goals are further detailed below and include specific goal statements which are measurable and achievable.

## Benefits

Once the regional flood plan is complete, realization of the goals will occur through the implementation of the associated FMSs, FMEs, and FMPs established in this plan. Implementation of the goals will demonstrate progress towards the overall purpose and intent of this regional flood planning study and will provide a series of benefits to individuals, communities, and the overall flood planning region as a whole. The benefits are set in Table 3.X, below.

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Table 3.X, Flood Planning Goals and Benefits

| Example Goals | | | | | | | |
|---|---|---|---|---|---|---|---|
| Overarching Goal | Goal 1: Flood Warning & Public Safety | Goal 2: Improving Flood Analyses | Goal 3: Reducing Property Damage & Loss | Goal 4: Protecting the Floodplain | Goal 5: Flood Infrastructure Improvement | Goal 6: Flood Education & Outreach | Legend: |
| Protect against the loss of life | ● | ● | ◑ | ◑ | ● | ◑ | |
| Protect against the loss of property | ◑ | ● | ● | ◑ | ● | ◑ | ◑ Potential benefit<br>● Benefit |
| Protect infrastructure | ● | ● | ● | | ● | | |
| Protect the environment | ● | ◑ | ● | ● | | | |
| Protect water supply | | | ◑ | ● | ◑ | | * Single project with multiple benefits, i.e. improves floodplain protection and water supply, increases recreation opportunities, habitat preservation, etc. |
| Sustain the economy | ● | ◑ | ● | | ◑ | | |
| Design for co-benefits* | | | ◑ | ● | ● | | |
| Increase public awareness | ● | ● | | | | ● | |
| Build community support | ● | ● | | | | ● | |

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# Specific Goal Statements

## Goal 1. Improving Flood Warning & Public Safety

Improve the dissemination of information regarding early flood recognition and danger, emergency response procedures, and post-flood recovery actions.

| Goals | Specific Goal Statements | Short Term (2033) | Long Term (2053) |
|---|---|---|---|
| A | Increase the number of communities with warning and emergency response programs that can detect the flood threat and provide timely warning of impending flood danger. | Initiated | Maintained |
| B | Improve regional standards for data sharing and warning systems | TBD | TBD |
| C | Reduce the number of low-water crossings with no warning system by ----% | TBD | TBD |
| D | Reduce 5-year moving average of flood related fatalities in the flood planning region by __% by 2033 | TBD% | TBD% |

## Goal 2. Improving Flood Analyses

Increase the number and extent of regional flood planning studies (FMEs) and analyses to better prepare communities for implementing flood mitigation projects.

| Goals | Specific Goal Statements | Short Term (2033) | Long Term (2053) |
|---|---|---|---|
| A | Increase the number of entities which utilize/adopt Atlas 14 (Volume 11) revised rainfall amounts as part of revisions to design criteria and flood prevention regulations by X. (region specific) | TBD | TBD |
| B | Increase the coverage of flood hazard data in the FPR by reducing the current gaps in floodplain mapping by ____%. | TBD | TBD |
| C | Increase utilization of the new base level engineering (BLE) data (pending) by regional entities in the FPR by X. | TBD | TBD |
| D | Increase the number of communities that perform detailed studies of localized/urban flooding impacts by X% | TBD | TBD |

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## Goal 3. Reducing Property Damage & Loss

Increase the number and extent of protective regulatory measures and programs to limit future risk and reduce flood damage in the flood planning region.

| Goals | Specific Goal Statements | Short Term (2033) | Long Term (2053) |
|---|---|---|---|
| A | Increase the number of communities who adopt floodplain standards equal to or greater than the NFIP minimum by X% | TBD | TBD |
| B | Increase the number of participating Community Rating System (CRS) communities in the FPR by X. | TBD | TBD |
| C | Increase the number of entities that have a dedicated municipal drainage charge, drainage district fee, or other continuous funding mechanism by X, to implement future FMEs and FMPs. | TBD | TBD |
| D | Increase the number of communities at have adopted regulations to reduce the risk from localized flooding by X. | TBD | TBD |
| E | Reduce the number of counties that do not have floodplain standards that meet or exceed the NFIP-minimum standards by X. | TBD | TBD |
| F | Increase the number of communities which designate their level of enforcement of floodplain management as “high activity” by X percent per each cycle. (incremental increase in level of enforcement) | TBD | TBD |
| G | Increase the number of communities which regulate to one or more feet above the BFE for future 100-year conditions by X per each cycle. | TBD | TBD |
| H | Increase the number of communities in the Flood Plain Region that designate the 1% annual chance floodplain on the entity’s future land use plan by X. | TBD | TBD |
| I | Increase the number of communities in the FPR that provide regional detention as part of an overall floodplain management program by X. | TBD | TBD |
| J | Reduce exposure of existing structures in the current 1% annual chance floodplain by elevating or floodproofing X% of structures by X. | TBD% | TBD% |

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## Goal 4. Protecting the Floodplain

Reduce the amount of existing and future vulnerable properties within the FPR.

| Goals | Specific Goal Statements | Short Term (2033) | Long Term (2053) |
|---|---|---|---|
| A | Reduce the number of vulnerable properties (i.e. through property buyouts, acquisitions, and/or relocations) by X%. | TBD% | TBD% |
| B | Increase the acreage of publicly protected natural areas by X % as part of property buyouts and acquisitions to reduce future impacts of flooding. | TBD | TBD |
| C | Reduce the number of repetitive-loss properties in the FPR by X. | TBD | TBD |
| D | Avoid new exposure to flood hazards by adopting land use and subdivision regulations that direct development away from the floodplain in X communities. | TBD | TBD |

## Goal 5. Flood Infrastructure Improvement

Reduce future vulnerability to existing structures through improved elevation and other flood proofing programs and initiatives. Reduce flood risk and mitigate flood hazards to life and property through the implementation of flood infrastructure projects.

| Goals | Specific Goal Statements | Short Term (2033) | Long Term (2053) |
|---|---|---|---|
| A | Reduce the number of vulnerable critical facilities located within the existing and future 1% annual chance floodplain by X. | TBD | TBD |
| B | Reduce the number of low water crossings located within the existing and future 1% annual chance floodplain by X%. | TBD | TBD |
| C | Increase the number of nature-based practices as part of flood risk reduction projects by X. | TBD% | TBD% |

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## Goal 6. Expanding Flood Education & Outreach

Increase the amount of flood education and outreach opportunities to improve awareness of flood hazards and future participation throughout the flood planning region (FPR).

| Goals | Specific Goal Statements | Short Term (2033) | Long Term (2053) |
|---|---|---|---|
| A | Increase the number of public stakeholder participants in the regional flood planning process by X percent per each flood planning cycle. | TBD% | TBD% |
| B | Increase the number of community stakeholder entities participating in the regional flood planning process by X percent per each cycle. | TBD% | TBD% |
| C | Increase the number of public outreach and education activities to improve awareness of flood hazards and benefits of flood planning in the FPR by X. | TBD | TBD |

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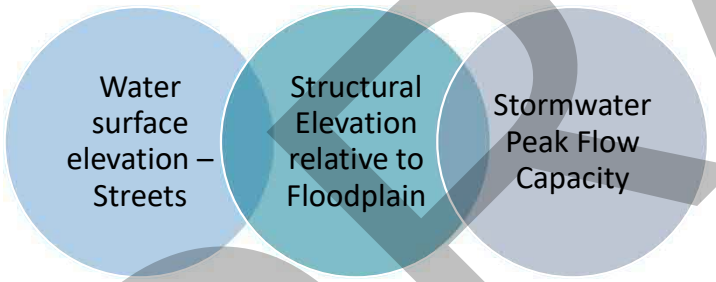
# Standards vs. Goals

## Standards

Establish consistent protocols for floodplain management that can be universally applied

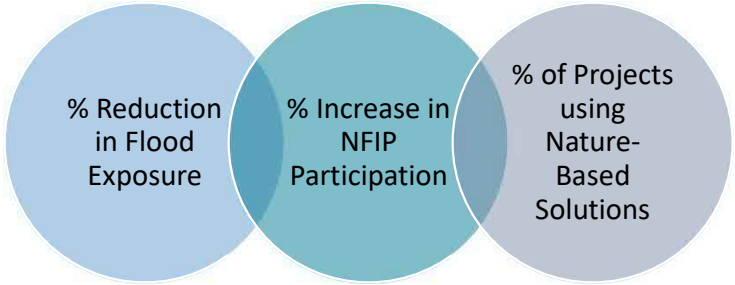
*Examples:*




## Goals

Set specific timelines and goalposts to implement proven flood mitigation measures, reducing future risk for people and property.

*Examples*:




Must be measurable and have a timeframe!

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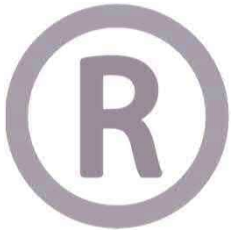
# Goals Must Be:

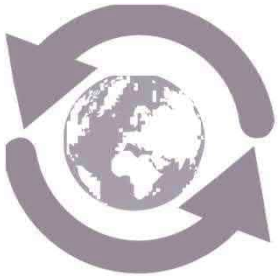
Specific &
Achievable

Reduce Residual
Risk



Recommended
or
Required

Short-term (10 years)
&/or
Long-Term (30 years)



Regionwide
Or Subregional

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# Please choose one word that describes your top priority for the Regional Flood Planning Effort.

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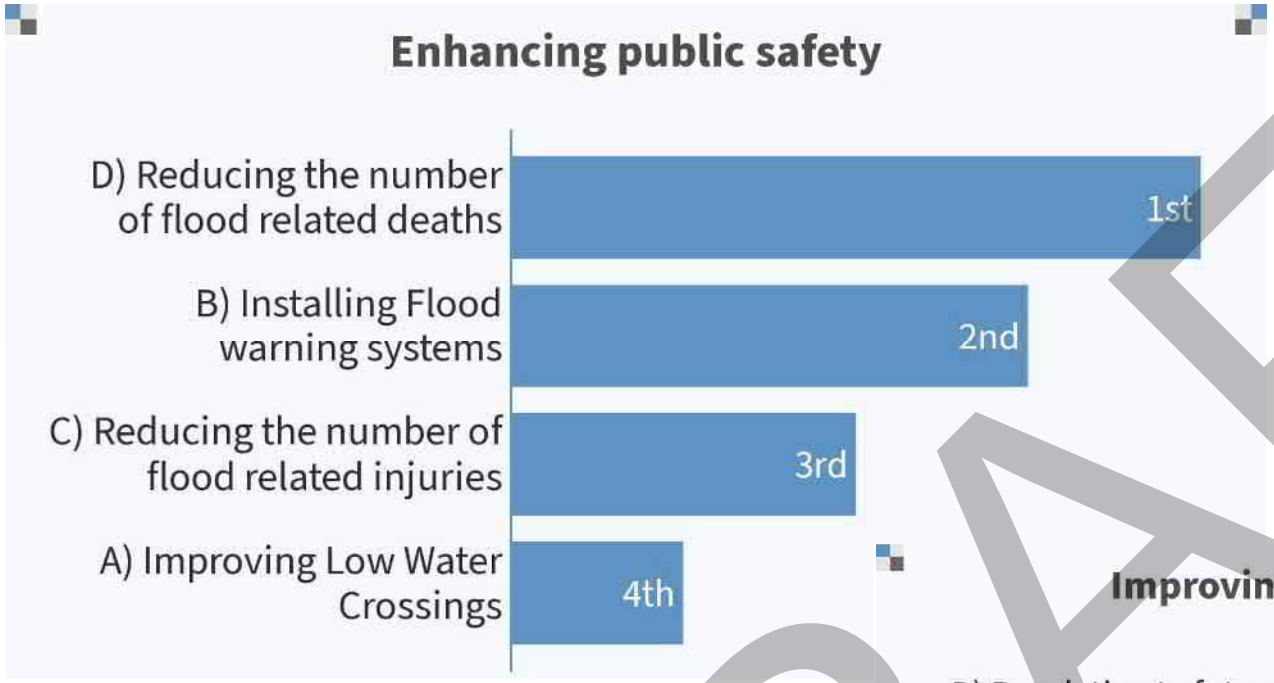
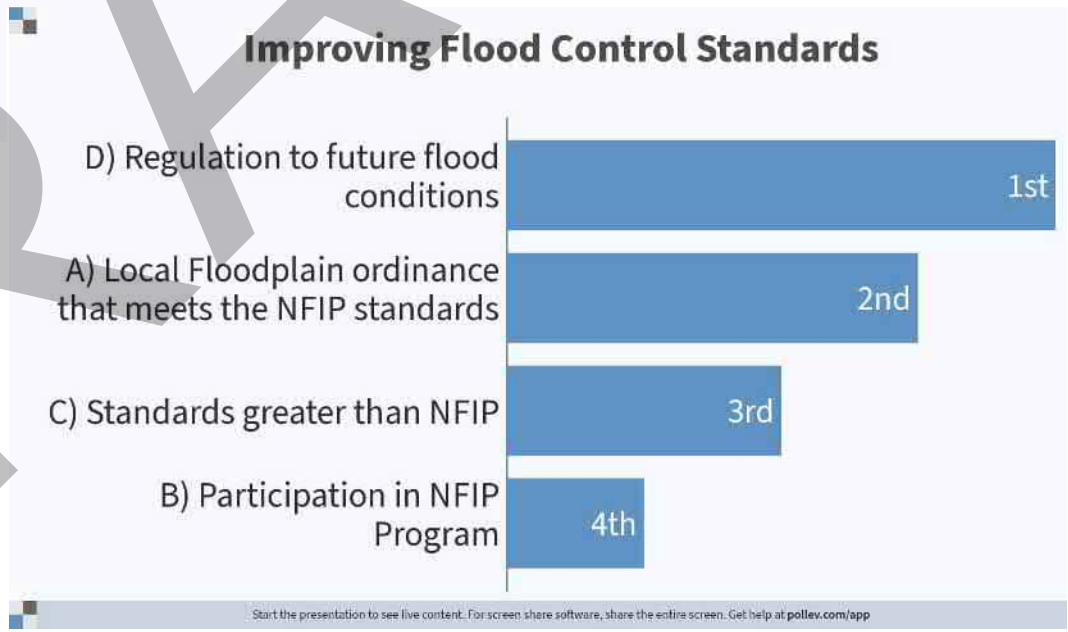

Enhancing public safety
D) Reducing the number of flood related deaths
1st
B) Installing Flood warning systems
2nd
C) Reducing the number of flood related injuries
3rd
A) Improving Low Water Crossings
4th


Improving Flood Control Standards
D) Regulation to future flood conditions
1st
A) Local Floodplain ordinance that meets the NFIP standards
2nd
C) Standards greater than NFIP
3rd
B) Participation in NFIP Program
4th
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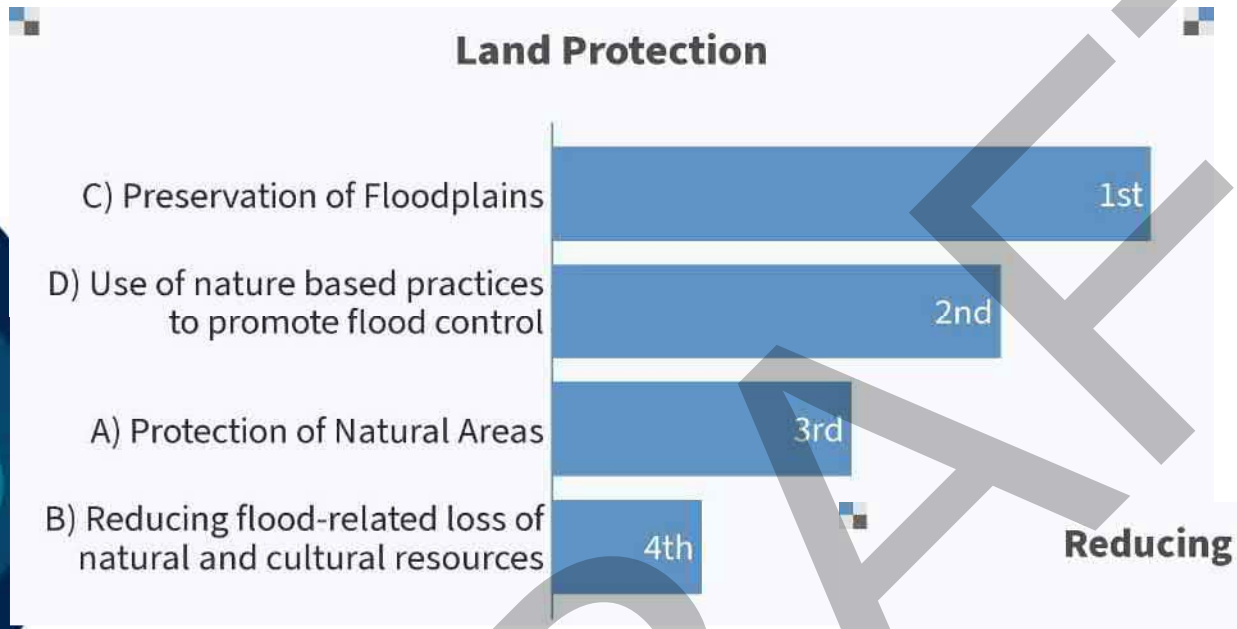
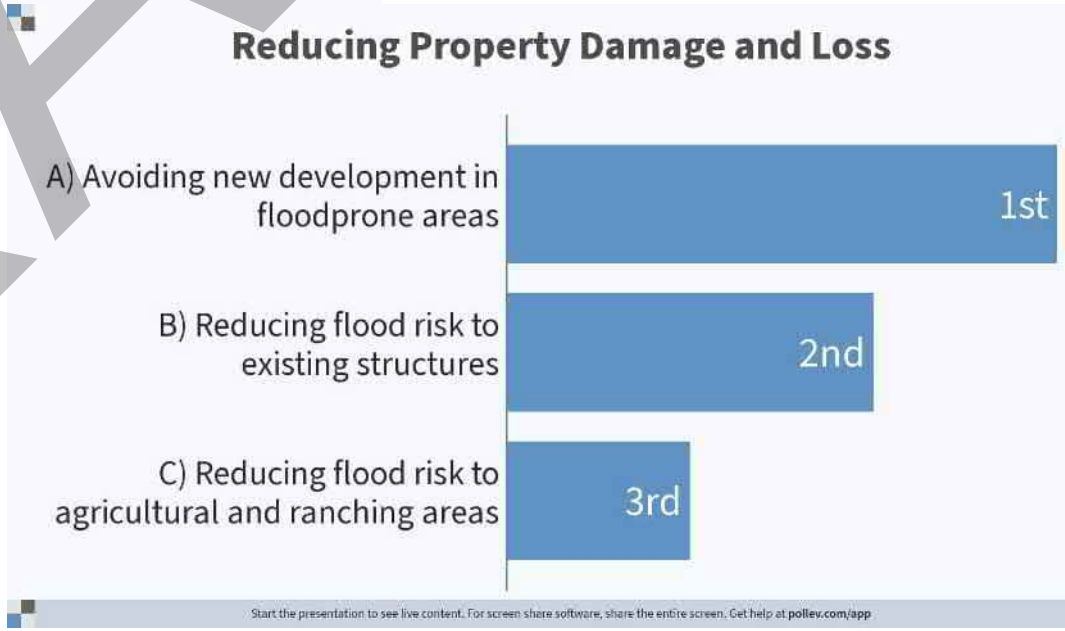

Land Protection
C) Preservation of Floodplains
1st
D) Use of nature based practices to promote flood control
2nd
A) Protection of Natural Areas
3rd
B) Reducing flood-related loss of natural and cultural resources
4th


Reducing Property Damage and Loss
A) Avoiding new development in floodprone areas
1st
B) Reducing flood risk to existing structures
2nd
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3rd
Start the presentation to see live content. For screen share software, share the entire screen. Get help at pollev.com/app

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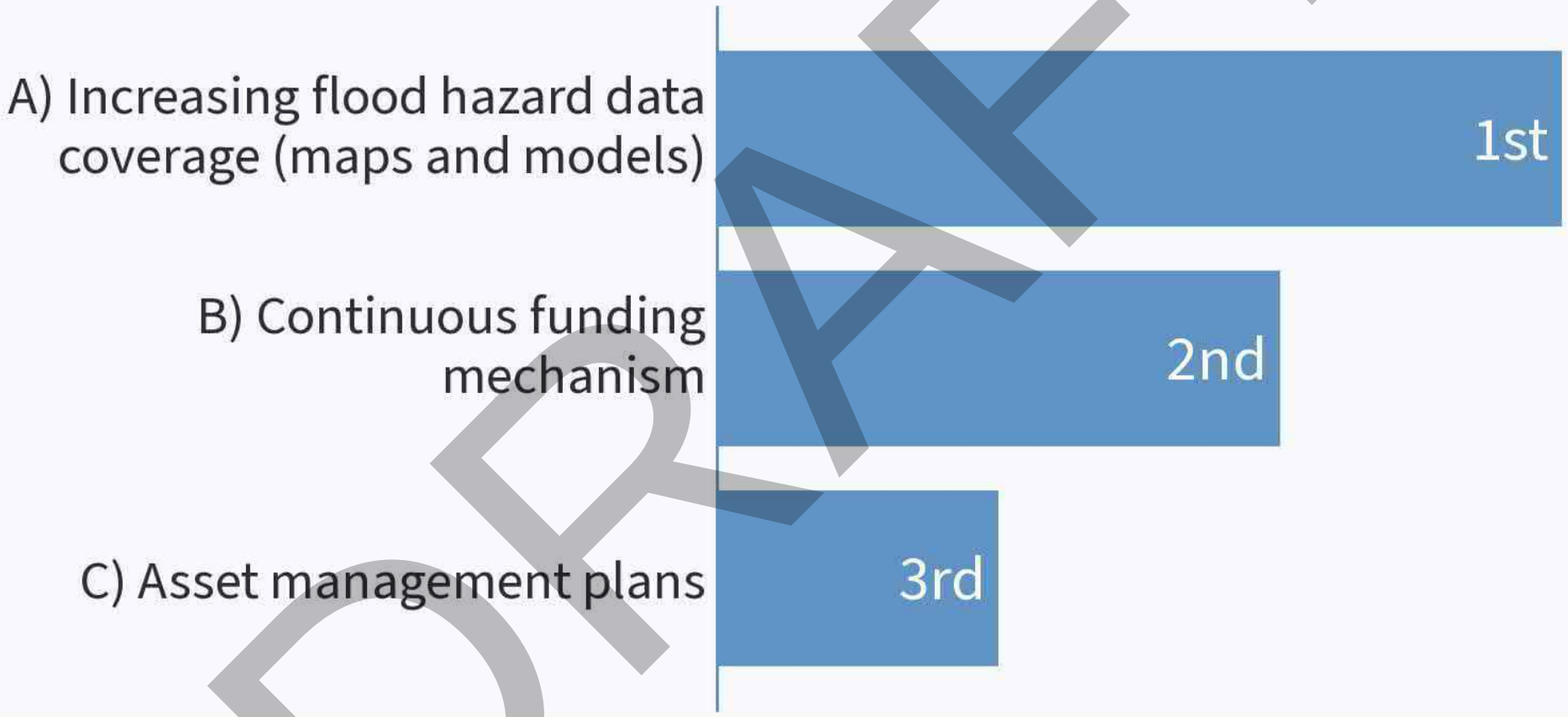
# Flood Control Programs

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# Please share some of your thoughts and ideas!

" Funding to undeveloped areas for data "

" Emphasis in reaching non public sector stakeholder throughout the process "

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# From the goal categories discussed, please rank the categories you believe will yield the highest value for this planning effort

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# Here's What We Heard

Below are overarching goals based on your guidance in our last meeting. The table below helps describe how they will help communities achieve the plan's objectives.

| | Example Goals | | | | | | |
|---|---|---|---|---|---|---|---|
| Overarching Goal | Goal 1: Flood Warning & Public Safety | Goal 2: Improving Flood Analyses | Goal 3: Reducing Property Damage & Loss | Goal 4: Protecting the Floodplain | Goal 5: Flood Infrastructure Improvement | Goal 6: Flood Education & Outreach | Legend: |
| Protect against the loss of life | ● | ● | ◑ | ◑ | ● | ◑ | |
| Protect against the loss of property | ◑ | ● | ● | ◑ | ● | ◑ | ◑ Potential benefit |
| Protect infrastructure | ● | ● | ● | | ● | | ● Benefit |
| Protect the environment | ● | ◑ | ● | ● | | | |
| Protect water supply | | | ◑ | ● | ◑ | | * Single project with multiple benefits, i.e. improves floodplain protection and water supply, increases recreation opportunities, habitat preservation, etc. |
| Sustain the economy | ● | ◑ | ● | | ◑ | | |
| Design for co-benefits* | | | ◑ | ● | ● | | |
| Increase public awareness | ● | ● | | | | ● | |
| Build community support | ● | ● | | | | ● | |

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# Goal 1. Improving Flood Warning and Public Safety

A Increase the number of communities with warning and emergency response programs that can detect the flood threat and provide timely warning of impending flood danger.

B Improve regional standards for data sharing and warning systems

C Reduce the number of low-water crossings with no warning system by ----%

Reduce 5-year moving average of flood related fatalities in the flood planning region by __% by 2033

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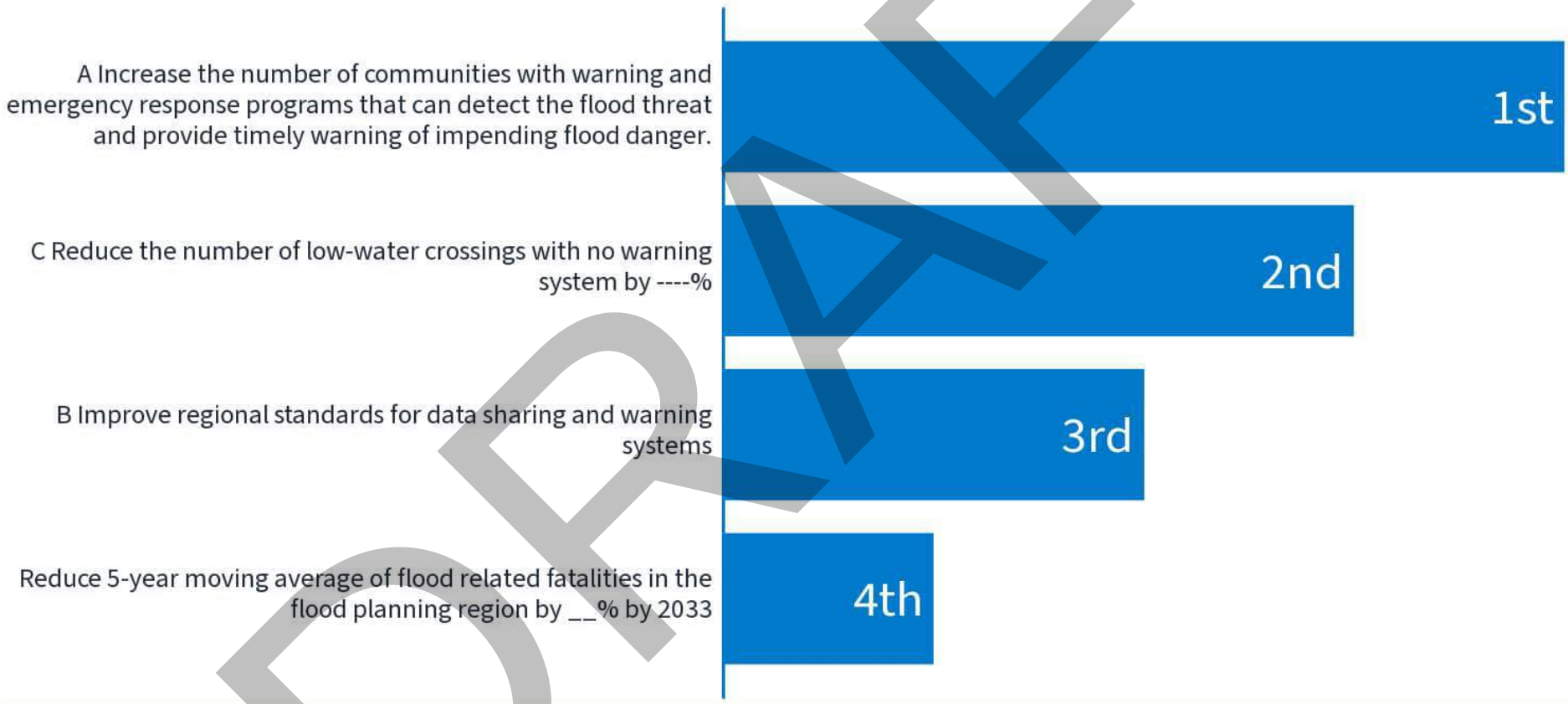
August 19, 2021 Trinity RFPG Meeting

# Goal 1. Improving Flood Warning and Public Safety

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# Goal 2. Improving Flood Analysis

A Increase the number of entities which utilize/adopt Atlas 14 (Volume 11) revised rainfall amounts as part of revisions to design criteria and flood prevention regulations by X. (region specific)

B Increase the coverage of flood hazard data in the FPR by reducing the current gaps in floodplain mapping by ____%.

C Increase utilization of the new base level engineering (BLE) data (pending) by regional entities in the FPR by X.

D Increase the number of communities that perform detailed studies of localized/urban flooding impacts by X%

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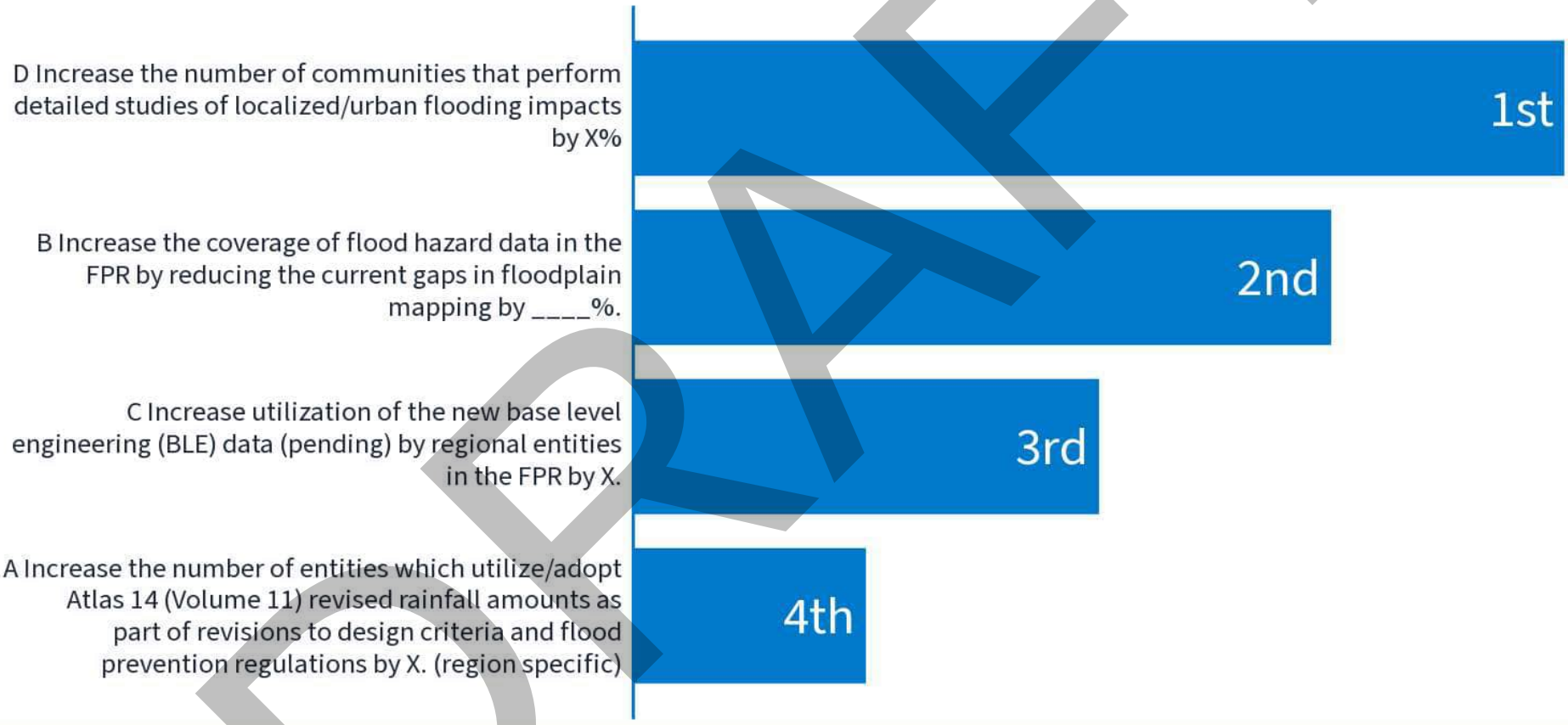
August 19, 2021 Trinity RFPG Meeting

# Goal 2. Improving Flood Analysis

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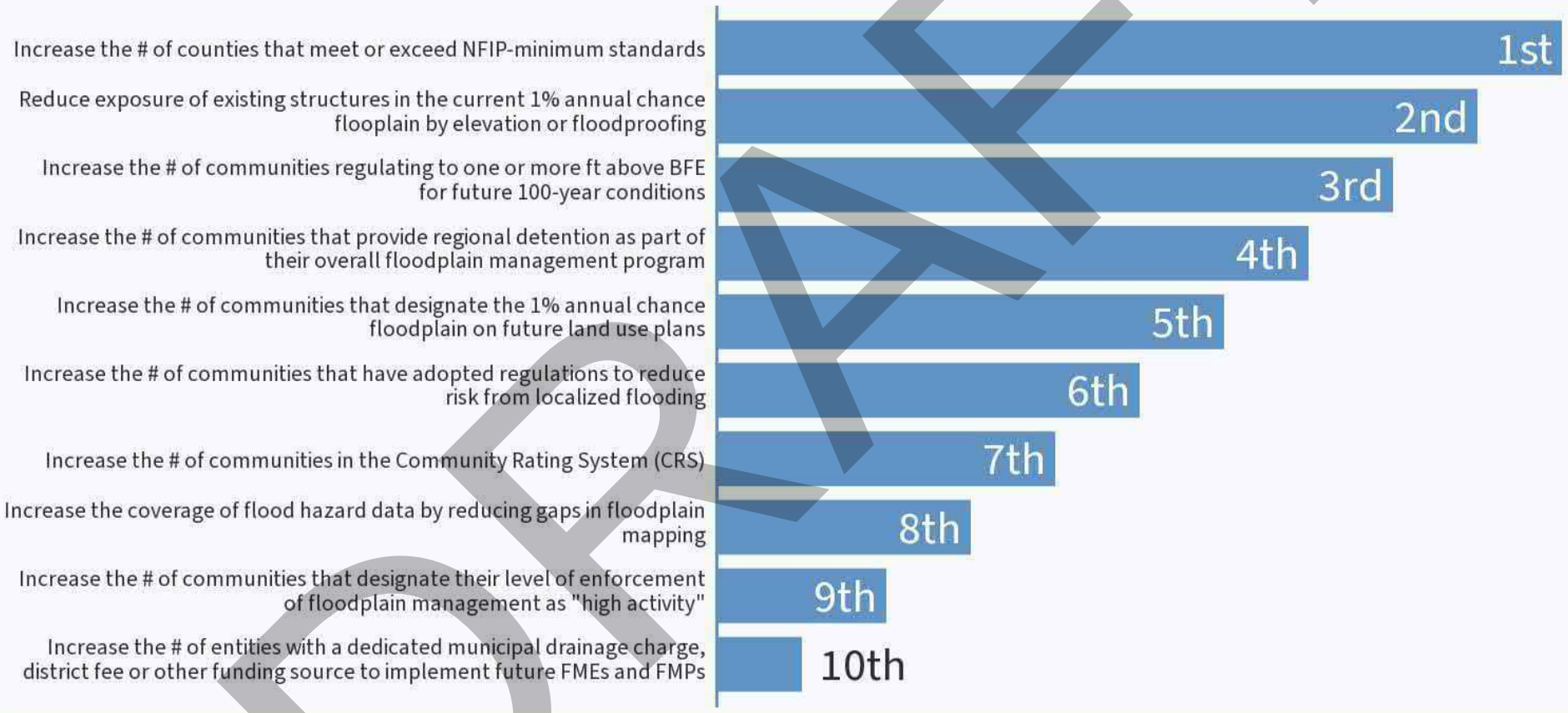
# Goal 3: Reducing Property Damage and Loss

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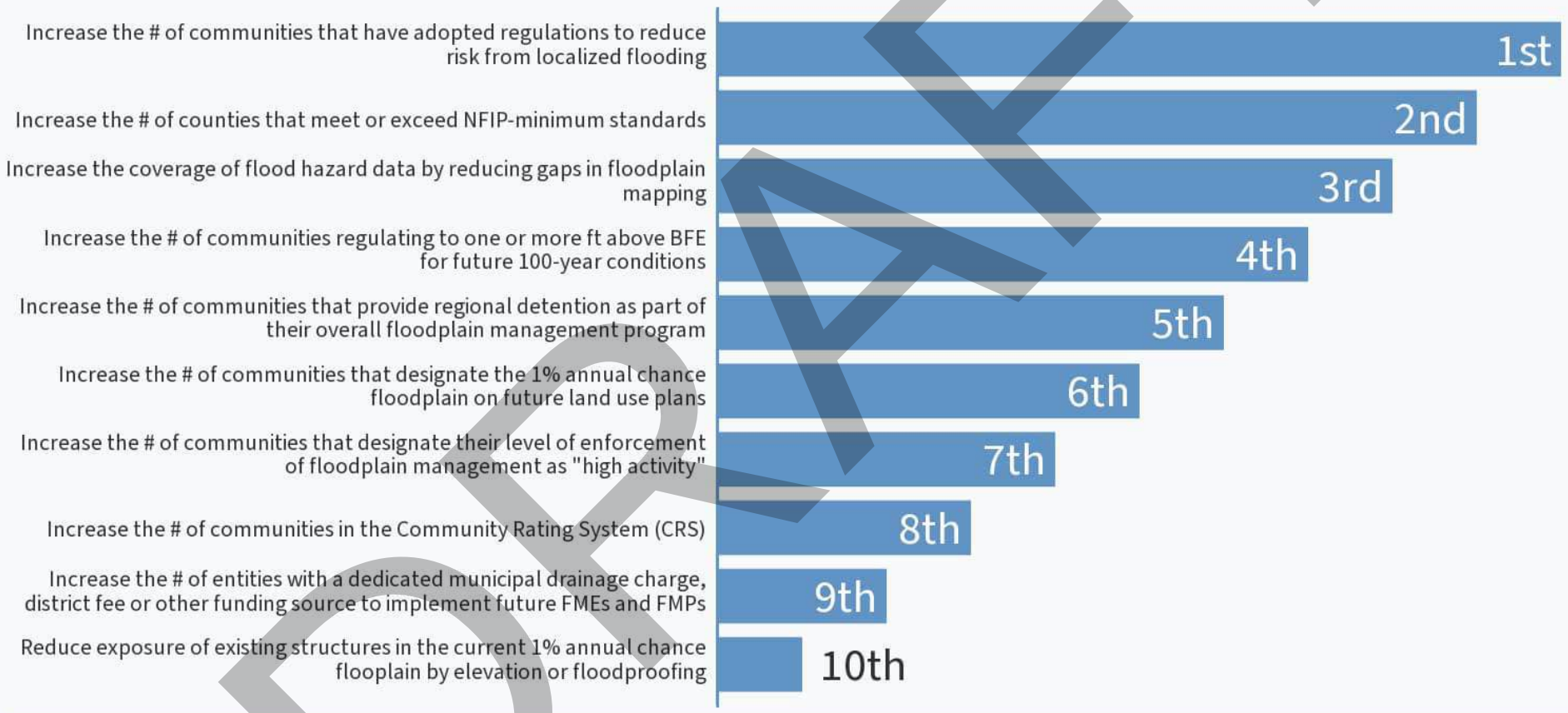
August 19, 2021 Trinity RFPG Meeting

# Goal 3: Reducing Property Damage and Loss

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# Goal 4. Protecting the Floodplain

A Reduce the number of vulnerable properties (i.e. through property buyouts, acquisitions, and/or relocations) by X%.

B Increase the acreage of publicly protected natural areas by X % as part of property buyouts and acquisitions to reduce future impacts of flooding.

C Reduce the number of repetitive-loss properties in the FPR by X.

D Increase the number of communities that perform detailed studies of localized/urban flooding impacts by X%

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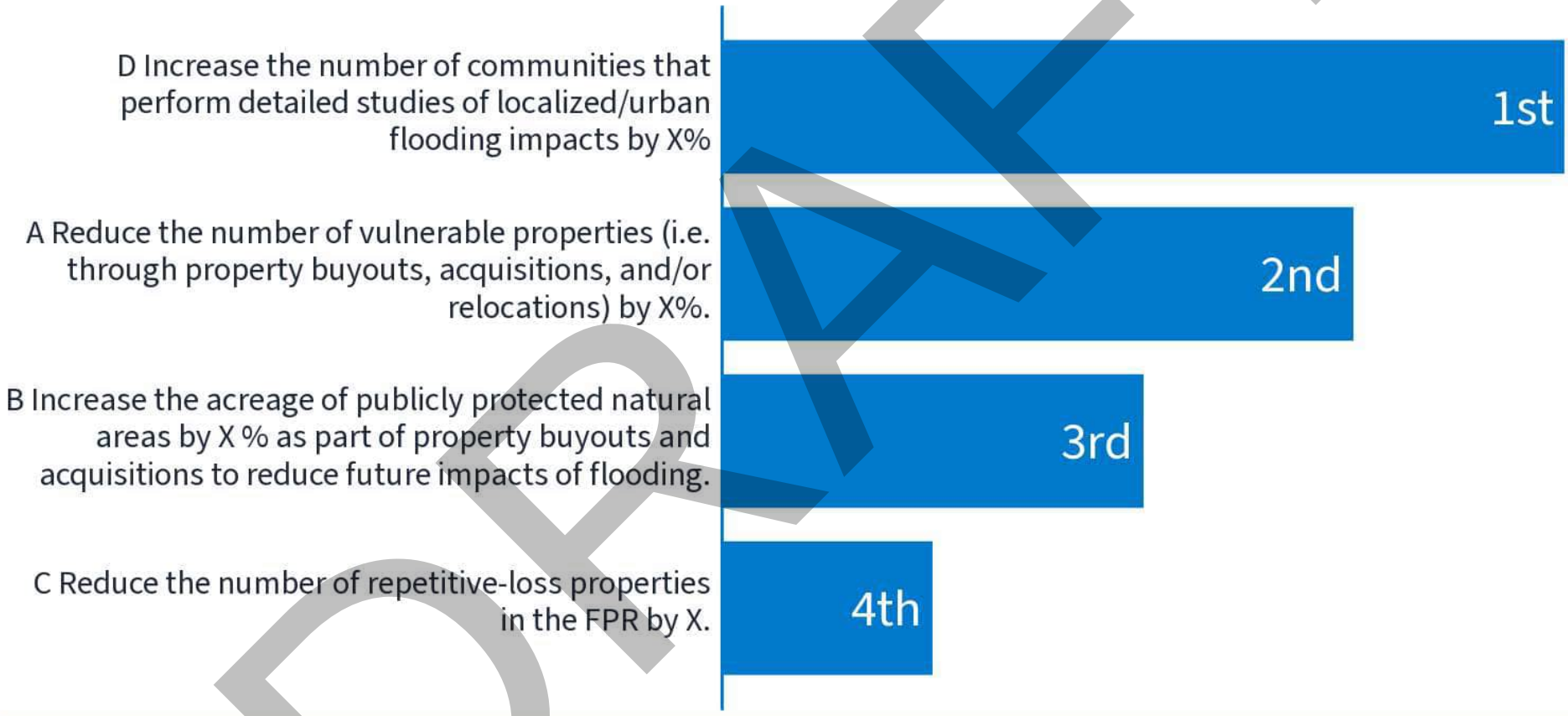
August 19, 2021 Trinity RFPG Meeting

# Goal 4. Protecting the Floodplain

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# Goal 5. Flood Infrastructure Improvement

A Reduce the number of vulnerable critical facilities located within the existing and future 1% annual chance floodplain by X.

B Reduce the number of low water crossings located within the existing and future 1% annual chance floodplain by X%.

C Increase the number of nature- based practices as part of flood risk reduction projects by X.

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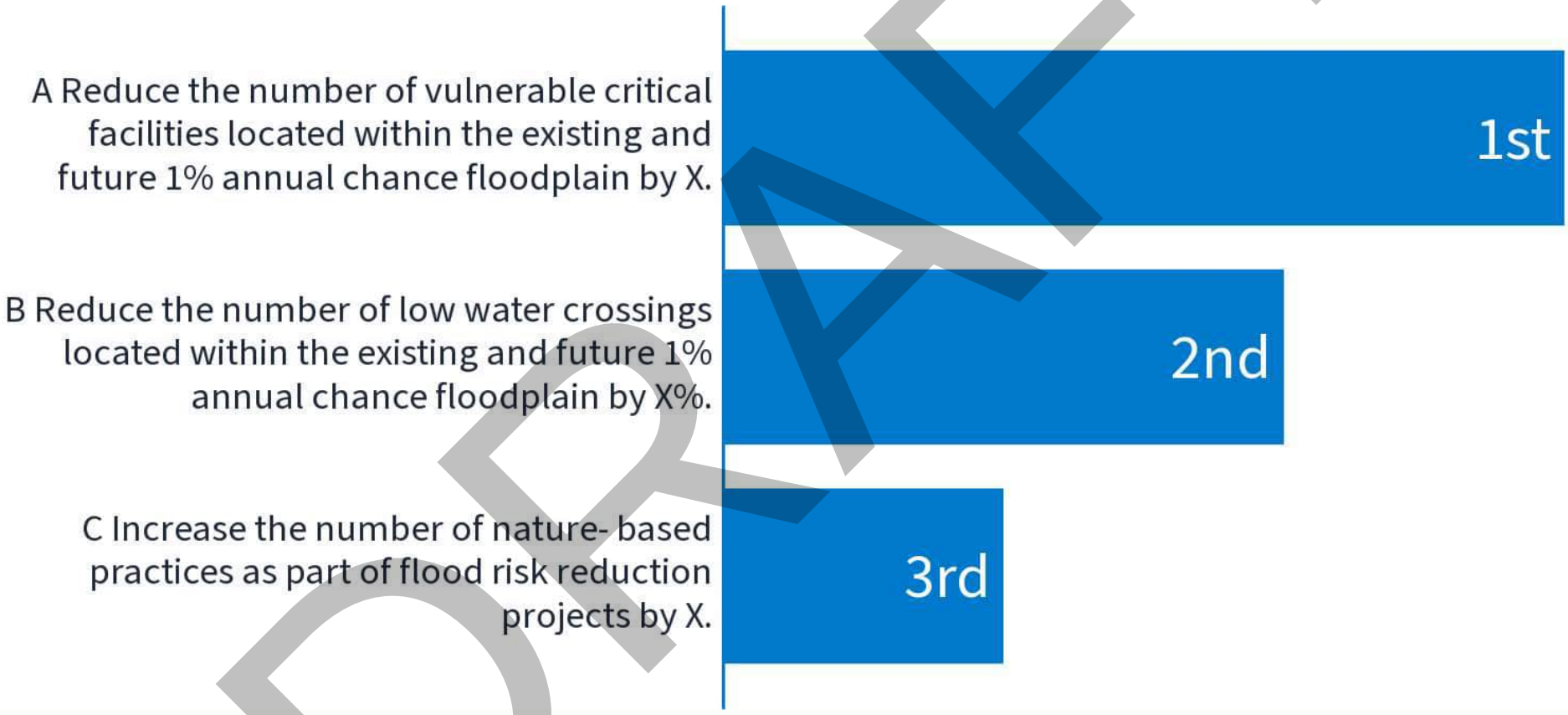
# Goal 5. Flood Infrastructure Improvement

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# Goal 6. Expanding Flood Education & Outreach

A Increase the number of public stakeholder participants in the regional flood planning process by X percent per each flood planning cycle.

B Increase the number of community stakeholder entities participating in the regional flood planning process by X percent per each cycle.

C Increase the number of public outreach and education activities to improve flood hazard awareness and benefits of flood planning by X percent.

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August 19, 2021 Trinity RFPG Meeting

# Goal 6. Expanding Flood Education & Outreach

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# Specific Goal Statements

## Goal 1. Improving Flood Warning & Public Safety

Improve the dissemination of information regarding early flood recognition and danger, emergency response procedures, and post-flood recovery actions.

| Goals | Specific Goal Statements | Short Term (2033) | Long Term (2053) |
|---|---|---|---|
| A | Increase the number of communities with flood warning programs that can detect flood threats and provide timely warning of impending flood danger. | Initiated | Maintained |
| B | Improve safety at low water crossings by adding warning systems/signage or improving low water crossings in high-risk areas | 100 crossings | 300 crossings |

## Goal 2. Improving Flood Analyses

Increase the number and extent of regional flood planning studies (FMEs) and analyses to better prepare communities for implementing flood mitigation projects.

| Goals | Specific Goal Statements | Short Term (2033) | Long Term (2053) |
|---|---|---|---|
| A | Increase the coverage of flood hazard data in the FPR by performing detailed studies using the best available land use and precipitation data to reduce gaps in floodplain mapping. | 25% gap reduction | 100% gap reduction |
| B | Increase the number of detailed studies of localized/urban flooding impacts within the FPR. | 5 | 25 |
| C | Increase the number of studies that utilize latest and most appropriate precipitation and land use data as part of revisions to design criteria and flood prevention regulations. | 10 | 50 |

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## Goal 3. Reducing Property Damage & Loss

Increase the number and extent of protective regulatory measures and programs to limit future risk and reduce flood damage in the flood planning region.

| Goals | Specific Goal Statements | Short Term (2033) | Long Term (2053) |
|---|---|---|---|
| A | Increase the number of entities that have floodplain standards that meet or exceed the NFIP-minimum standards. | 5 | 25 |
| B | Reduce the number of structures within the 1% floodplain (i.e. through structural projects, property buyouts, acquisitions, and/or relocations). | 5% | 10% |
| C | Reduce the number of vulnerable Critical Facilities located in the existing 1% annual chance floodplain. | 20 | 50 |
| D | Reduce the financial impact of flood-related agricultural losses | $2,000,000 | $20,000,000 |
| E | Increase the number of entities that have a dedicated municipal drainage charge (stormwater utility fee), drainage district fee, or other continuous funding mechanism to implement future FMEs and FMPs. | 10 | 50 |
| F | Increase the number of communities that implement regional detention as part of an overall floodplain management program. | 5 | 25 |
| G | Increase the number of communities that have adopted regulations to reduce the risk from localized/urban flooding. | 3 | 10 |

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## Goal 4. Floodplain Preservation

Maintain the natural and beneficial functions of floodplains by preservation and conservation programs.

| Goals | Specific Goal Statements | Short Term (2033) | Long Term (2053) |
|---|---|---|---|
| A | Increase the acreage of publicly protected natural areas to reduce future impacts of flooding. | 5% | 10% |
| B | Increase the number of entities that designate the 1% annual chance floodplain on the entity's future land use plan. | 20 | 50 |
| C | Avoid new exposure to flood hazards by adoption of comprehensive plans or subdivision regulations that direct development away from the floodplain. | 20 entities | 50 entities |

## Goal 5. Flood Infrastructure Improvement

Reduce flood risk and mitigate flood hazards to life and property through the maintenance and rehabilitation of existing infrastructure and implementation of new flood infrastructure projects.

| Goals | Specific Goal Statements | Short Term (2033) | Long Term (2053) |
|---|---|---|---|
| ~~A~~ | Develop a program and schedule for the maintenance of high hazard dams and levees within the FPR. | 10% | 50% |
| B | Increase the number of nature-based practices as part of flood risk reduction projects. | 20 | 50 |
| C | Improve flood infrastructure by maintaining streams and drainage channels to protect agricultural lands from flooding. | 5 stream miles | 50 stream miles |

## Goal 6. Expanding Flood Education & Outreach

Increase the amount of flood education and outreach opportunities to improve awareness of flood hazards and maximize future participation throughout the flood planning region (FPR).

| Goals | Specific Goal Statements | Short Term (2033) | Long Term (2053) |
|---|---|---|---|
| A | Improve the participation of community stakeholder entities in the regional flood planning process. | 35% | 90% |
| B | Increase the number of local entities that host public outreach and education activities each year to improve awareness of flood hazards and benefits of flood planning in the FPR. | 20 | 50 |

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# Ch. 3 Floodplain Management Practices and Goals

Consider Approval of Goals
Discussion of Floodplain Management Practices
Consider Approval of Recommending or Adopting Specific Floodplain Management Practices

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# Goal 1. Improving Flood Warning & Public Safety

Improve the dissemination of information regarding early flood recognition and danger, emergency response procedures, and post-flood recovery actions.

| Goals | Specific Goal Statements | Short Term (2033) | Long Term (2053) |
|---|---|---|---|
| **A** | Increase the number of communities with flood warning programs that can detect flood threats and provide timely warning of impending flood danger. | Initiated | Maintained |
| **B** | Improve safety at low water crossings by adding warning systems/signage or improving low water crossings in high-risk areas. | 100 crossings | 300 crossings |

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# Goal 2. Improving Flood Analyses

Increase the number and extent of regional flood planning studies (FMEs) and analyses to better prepare communities for implementing flood mitigation projects.

| Goals | Specific Goal Statements | Short Term (2033) | Long Term (2053) |
|---|---|---|---|
| A | Increase the availability of flood hazard data that uses the best available land use and precipitation data to reduce gaps in floodplain mapping. | 25% gap reduction | 95% gap reduction |
| B | Increase the number of entities that conduct detailed studies of localized/urban flooding impacts within the FPR. | Establish a baseline measurement | 30% |
| C | Increase the number of communities that utilize latest and most appropriate precipitation and land use data as a basis for design criteria and flood prevention regulations. | Establish a baseline measurement | 30% |

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# Goal 3. Reducing Property Damage & Loss

Increase the number and extent of protective regulatory measures and programs to limit future risk and reduce flood damage in the flood planning region.

| Goals | Specific Goal Statements | Short Term (2033) | Long Term (2053) |
|---|---|---|---|
| **A** | Increase the number of entities that have floodplain standards that meet or exceed the NFIP-minimum standards. | 5 | 25 |
| **B** | Reduce the number of structures within the 1% floodplain (i.e. through structural projects, property buyouts, acquisitions, and/or relocations). | 5% | 10% |
| **C** | Reduce the vulnerability of agriculture, ranching and forestry to flood-related losses. | Establish a baseline measurement | 30% |

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# Goal 4. Floodplain Preservation

Maintain the natural and beneficial functions of floodplains by preservation and conservation programs.

| Goals | Specific Goal Statements | Short Term (2033) | Long Term (2053) |
|---|---|---|---|
| **A** | Increase the acreage of publicly protected natural areas for flood and ecosystem purposes to reduce future impacts of flooding. | Establish a baseline measurement | 10% |
| **B** | Increase the number of entities that designate the 1% annual chance floodplain on Future Land Use plans that serve as the basis for zoning regulations | 20 | 50 |
| **C** | Avoid new exposure to flood hazards by adopting comprehensive plans or subdivision regulations that direct development away from the floodplain. | Establish a baseline measurement | 10% |

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# Goal 5. Flood Infrastructure Improvement

Reduce flood risk and mitigate flood hazards to life and property through the maintenance and rehabilitation of existing infrastructure and implementation of new flood infrastructure projects.

| Goals | Specific Goal Statements | Short Term (2033) | Long Term (2053) |
|---|---|---|---|
| **A** | Increase the number of nature-based practices as part of flood risk reduction projects. | Establish a baseline measurement | 30% |
| **B** | Improve flood infrastructure and properly maintain streams and drainage channels to protect agricultural lands from flooding | 5 stream miles | 50 stream miles |

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# Goal 6. Expanding Flood Education & Outreach

Increase the amount of flood education and outreach opportunities to improve awareness of flood hazards and future participation throughout the flood planning region (FPR).

| Goals | Specific Goal Statements | Short Term (2033) | Long Term (2053) |
|---|---|---|---|
| A | Improve the participation of community stakeholder entities in the regional flood planning process. | 35% | 90% |
| B | Increase the number of local entities that host annual public outreach and education activities to improve awareness of flood hazards, benefits of flood planning, and procedures associated with emergency response associated with flooding. | Establish a baseline measurement | 50 |
| C | Increase the number of communities that work cooperatively as part of an overall floodplain management program. | 5 | 25 |

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# Consider approval of floodplain management goals

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REGION 3 TRINITY REGIONAL FLOOD PLANNING GROUP

# Region 3 Trinity RFPG: Draft Specific Goal Statements

As Reviewed and Approved by Region 3 RFPG on 09/23/21

## Goal 1. Improving Flood Warning & Public Safety

Improve the dissemination of information regarding early flood recognition and danger, emergency response procedures, and post-flood recovery actions.

| Goals | Specific Goal Statements | Short Term (2033) | Long Term (2053) |
|---|---|---|---|
| A | Increase the number of communities with flood warning programs that can detect flood threats and provide timely warning of impending flood danger. | Initiated | Maintained |
| B | Improve safety at low water crossings by adding warning systems/signage or improving low water crossings in high-risk areas | 100 crossings | 300 crossings |

## Goal 2. Improving Flood Analyses

Increase the number and extent of regional flood planning studies (FMEs) and analyses to better prepare communities for implementing flood mitigation projects.

| Goals | Specific Goal Statements | Short Term (2033) | Long Term (2053) |
|---|---|---|---|
| A | Increase the availability of flood hazard data that uses the best available land use and precipitation data to reduce gaps in floodplain mapping. | 25% gap reduction | 95% gap reduction |
| B | Increase the number of entities that conduct detailed studies of localized/urban flooding impacts within the FPR. | Establish a baseline measurement | 30% |
| C | Increase the number of communities that utilize latest and most appropriate precipitation and land use data as a basis for design criteria and flood prevention regulations. | Establish a baseline measurement | 30% |

## Goal 3. Reducing Property Damage & Loss

Increase the number and extent of protective regulatory measures and programs to limit future risk and reduce flood damage in the flood planning region.

| Goals | Specific Goal Statements | Short Term (2033) | Long Term (2053) |
|---|---|---|---|
| A | Increase the number of entities that have floodplain standards that meet or exceed the NFIP-minimum standards. | 5 | 25 |
| B | Reduce the number of structures within the 1% floodplain (i.e. through structural projects, property buyouts, acquisitions, and/or relocations). | 5% | 10% |
| C | Reduce the vulnerability of agriculture, ranching and forestry to flood-related losses. | Establish a baseline measurement | 30% |

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## Goal 4. Floodplain Preservation

Maintain the natural and beneficial functions of floodplains by preservation and conservation programs.

| Goals | Specific Goal Statements | Short Term (2033) | Long Term (2053) |
|---|---|---|---|
| A | Increase the acreage of publicly protected natural areas for flood and ecosystem purposes to reduce future impacts of flooding. | Establish a baseline measurement | 10% |
| B | Increase the number of entities that designate the 1% annual chance floodplain on Future Land Use plans that serve as the basis for zoning regulations | 20 | 50 |
| C | Avoid new exposure to flood hazards by adopting comprehensive plans or subdivision regulations that direct development away from the floodplain. | Establish a baseline measurement | 10% |

## Goal 5. Flood Infrastructure Improvement

Reduce flood risk and mitigate flood hazards to life and property through the maintenance and rehabilitation of existing infrastructure and implementation of new flood infrastructure projects.

| Goals | Specific Goal Statements | Short Term (2033) | Long Term (2053) |
|---|---|---|---|
| A | Increase the number of nature-based practices as part of flood risk reduction projects. | Establish a baseline measurement | 30% |
| B | Improve flood infrastructure and maintain streams and drainage channels to protect agricultural lands from flooding | Establish a baseline measurement | 10% |

## Goal 6. Expanding Flood Education & Outreach

Increase the amount of flood education and outreach opportunities to improve awareness of flood hazards and future participation throughout the flood planning region (FPR).

| Goals | Specific Goal Statements | Short Term (2033) | Long Term (2053) |
|---|---|---|---|
| A | Improve the participation of community stakeholder entities in the regional flood planning process. | 35% | 90% |
| B | Increase the number of local entities that host annual public outreach and education activities to improve awareness of flood hazards, benefits of flood planning, and procedures associated with emergency response associated with flooding. | Establish a baseline measurement | 50 |
| C | Increase the number of communities that work cooperatively as part of an overall floodplain management program. | 5 | 25 |

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REGION 15 TRINITY REGIONAL FLOOD PLANNING GROUP

## Goal 7. Expand Funding

| Goals | Specific Goal Statements | Short Term (2033) | Long Term (2053) |
|---|---|---|---|
| A | Expand eligibility for and use of funding programs (Local, State, Federal, Public/Private Partnerships, etc.) | Establish a baseline measurement | |
| B | Increase communities with dedicated stormwater funding mechanisms | 10% | 30% |

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# Ch. 3 Floodplain Management Goals

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# Proposed Movement of Goal 7.A

- Original Text: Expand eligibility for and use of funding programs (Local, State, Federal, Public/Private Partnerships, etc.)

- No FMEs, FMPs or FMSs align with goal

Chapter 3

Chapter 8

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# Proposed adjustments to goals based on QC review

- Goal 4.B
  - Original text: Increase the number of entities that designate the 1% annual chance floodplain on Future Land Use plans that serve as the basis for zoning regulations
  - Proposed text: Increase the number of entities that ~~designate~~ include the 1% annual chance floodplain on Future Land Use plans ~~that serve as the basis for zoning regulations~~
- Goal 5.B
  - Original text: Improve flood infrastructure and maintain streams and drainage channels to protect agricultural lands from flooding
  - Proposed text: Improve flood infrastructure and maintain streams and drainage channels to ~~protect~~ reduce flood risk to agricultural lands ~~from flooding~~
- Goal 7.A
  - Original Text: Expand eligibility for and use of funding programs (Local, State, Federal, Public/Private Partnerships, etc.)
  - Proposed text: Expand eligibility for and use of funding for stormwater and flood mitigation solutions ~~programs~~ (Local, State, Federal, Public/Private Partnerships, etc.)

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# Items for Possible Inclusion

## FMEs

- Dams & Levees
  - Emergency Action Plans
  - Failure Inundation Studies
  - Identify/Evaluate High Hazard Dams
- Retention/Detention Ponds
- Critical Facilities

## FMPs

- Railroads
- Street Drainage

## FMSs

- Infrastructure Inspection
- Floodproofing
  - Structures
  - Critical Facilities

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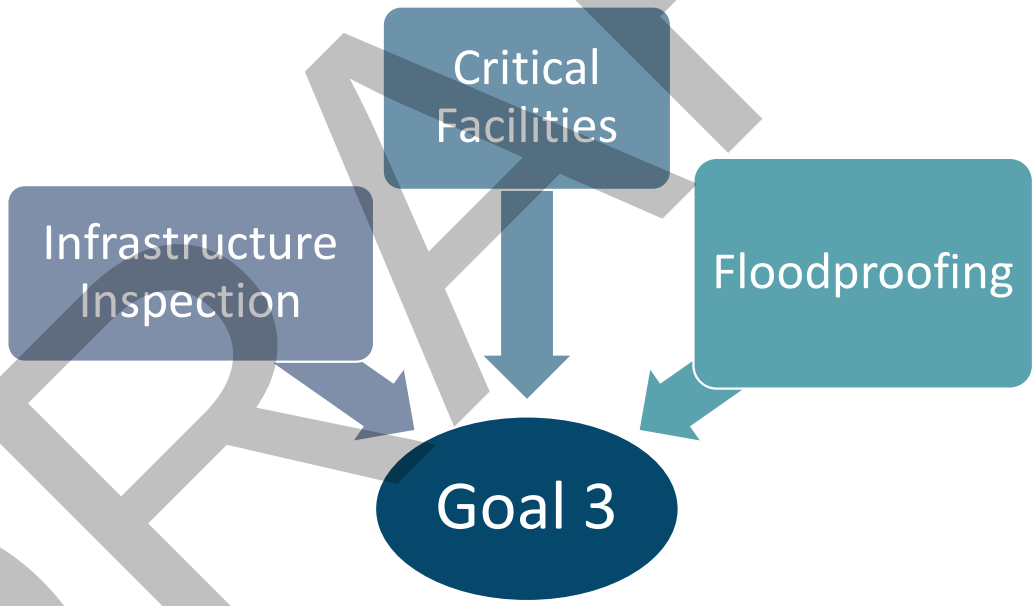
# Current Classification

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# Goal 3. Reducing Property Damage & Loss

Increase the number and extent of protective regulatory measures and programs to limit future risk and reduce flood damage in the flood planning region.

| Goals | Specific Goal Statements | Short Term (2033) | Long Term (2053) |
|---|---|---|---|
| **A** | Increase the number of entities that have floodplain standards that meet or exceed the NFIP-minimum standards. | 5 | 25 |
| **B** | Reduce the number of structures within the 1% floodplain (i.e. through structural projects, property buyouts, acquisitions, and/or relocations). | 5% | 10% |
| **C** | Reduce the vulnerability of agriculture, ranching and forestry to flood-related losses. | Establish a baseline measurement | 30% |
| **D** | Reduce the number of critical facilities within the 1% floodplain | 5% | 10% |
| **E** | When relocation and/or elevation adjustment is not possible, increase the number of non-residential facilities that implement floodproofing | 5 | 25 |

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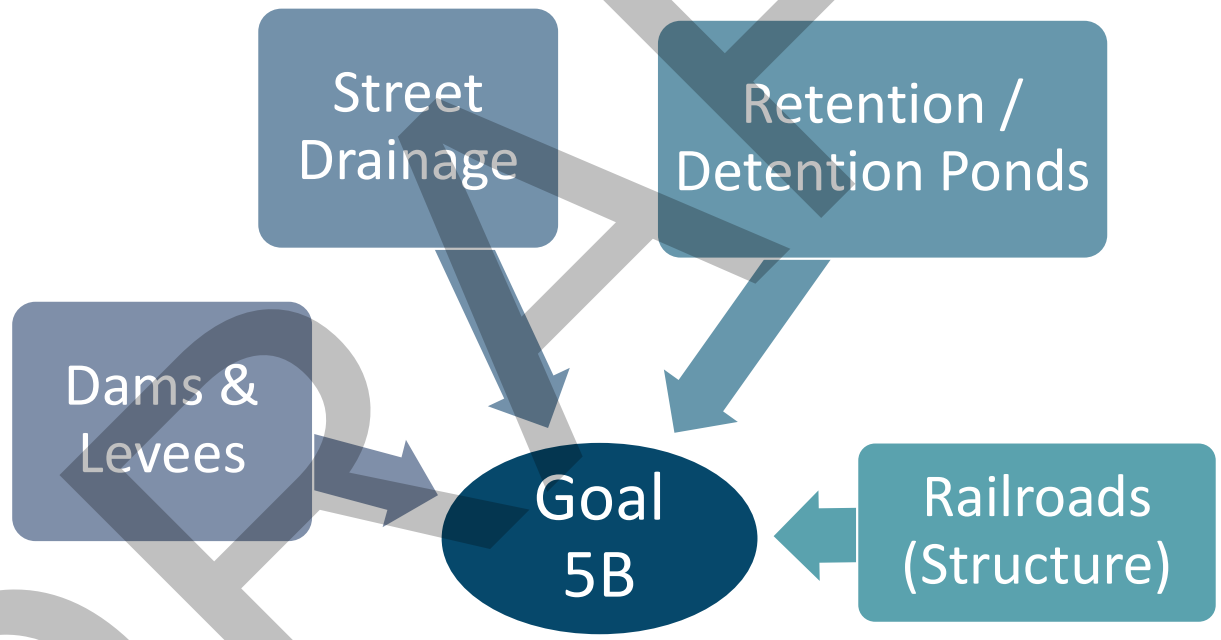
# Current Classification

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# Goal 5. Flood Infrastructure Improvement

Reduce flood risk and mitigate flood hazards to life and property through the maintenance and rehabilitation of existing infrastructure and implementation of new flood infrastructure projects.

| Goals | Specific Goal Statements | Short Term (2033) | Long Term (2053) |
|---|---|---|---|
| A | Increase the number of nature-based practices as part of flood risk reduction projects. | Establish a baseline measurement | 30% |
| B | Improve flood infrastructure and properly maintain streams and drainage channels to protect agricultural lands from flooding | 5 stream miles | 50 stream miles |
| C | Improve urban drainage infrastructure to minimize flood risk | 50 miles | 500 miles |
| D | Perform annual inspections to maintain existing dams, levees, ponds and other flood mitigation structures | Establish a baseline measurement | 10% |

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# Consider approval of edits to goals

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REGION 3 TRINITY REGIONAL FLOOD PLANNING GROUP

# Region 3 Trinity RFPG: Specific Goal Statements

As Adopted by Region 3 RFPG on 12/16/21

## Goal 1. Improving Flood Warning & Public Safety

Improve the dissemination of information regarding early flood recognition and danger, emergency response procedures, and post-flood recovery actions.

| Goals | Specific Goal Statements | Short Term (2033) | Long Term (2053) |
|---|---|---|---|
| A | Increase the number of communities with flood warning programs that can detect flood threats and provide timely warning of impending flood danger. | Initiated | Maintained |
| B | Improve safety at low water crossings by adding warning systems/signage or improving low water crossings in high-risk areas | 100 crossings | 300 crossings |

## Goal 2. Improving Flood Analyses

Increase the number and extent of regional flood planning studies (FMEs) and analyses to better prepare communities for implementing flood mitigation projects.

| Goals | Specific Goal Statements | Short Term (2033) | Long Term (2053) |
|---|---|---|---|
| A | Increase the availability of flood hazard data that uses the best available land use and precipitation data to reduce gaps in floodplain mapping. | 25% gap reduction | 95% gap reduction |
| B | Increase the number of entities that conduct detailed studies of localized/urban flooding impacts within the FPR. | Establish a baseline measurement | 30% |
| C | Increase the number of communities that utilize latest and most appropriate precipitation and land use data as a basis for design criteria and flood prevention regulations. | Establish a baseline measurement | 30% |

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REGION 3 TRINITY REGIONAL FLOOD PLANNING GROUP

## Goal 3. Reducing Property Damage & Loss

Increase the number and extent of protective regulatory measures and programs to limit future risk and reduce flood damage in the flood planning region.

| Goals | Specific Goal Statements | Short Term (2033) | Long Term (2053) |
|---|---|---|---|
| A | Increase the number of entities that have floodplain standards that meet or exceed the NFIP-minimum standards. | 5 | 25 |
| B | Reduce the number of structures within the 1% floodplain (i.e. through structural projects, property buyouts, acquisitions, elevations, and/or relocations). | 5% | 10% |
| C | Reduce the vulnerability of agriculture, ranching and forestry to flood-related losses. | Establish a baseline measurement | 30% |
| D | Reduce the number of critical facilities within the 1% floodplain | 5% | 10% |
| E | When relocation and/or elevation adjustment is not possible, increase the number of non-residential facilities that implement floodproofing | 5 | 25 |

## Goal 4. Floodplain Preservation

Maintain the natural and beneficial functions of floodplains by preservation and conservation programs.

| Goals | Specific Goal Statements | Short Term (2033) | Long Term (2053) |
|---|---|---|---|
| A | Increase the acreage of publicly protected natural areas for flood and ecosystem purposes to reduce future impacts of flooding. | Establish a baseline measurement | 10% |
| B | Increase the number of entities that include the 1% annual chance floodplain on Future Land Use plans and other planning documents | 20 | 50 |
| C | Avoid new exposure to flood hazards by adopting comprehensive plans or subdivision regulations that direct development away from the floodplain. | Establish a baseline measurement | 10% |

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REGION 3 TRINITY REGIONAL FLOOD PLANNING GROUP

## Goal 5. Flood Infrastructure Improvement

Reduce flood risk and mitigate flood hazards to life and property through the maintenance and rehabilitation of existing infrastructure and implementation of new flood infrastructure projects.

| Goals | Specific Goal Statements | Short Term (2033) | Long Term (2053) |
|---|---|---|---|
| A | Increase the number of nature-based practices as part of flood risk reduction projects. | Establish a baseline measurement | 30% |
| B | Improve flood infrastructure and maintain streams and drainage channels to reduce flood risk to agricultural lands. | Establish a baseline measurement | 10% |
| C | Improve urban drainage infrastructure to minimize flood risk. | 50 miles | 500 miles |
| D | Perform regular inspections and maintain existing dams, levees, and other flood mitigation structures. | Establish a baseline measurement | 10% |

## Goal 6. Expanding Flood Education & Outreach

Increase the amount of flood education and outreach opportunities to improve awareness of flood hazards and future participation throughout the flood planning region (FPR).

| Goals | Specific Goal Statements | Short Term (2033) | Long Term (2053) |
|---|---|---|---|
| A | Improve the participation of community stakeholder entities in the regional flood planning process. | 35% | 90% |
| B | Increase the number of local entities that host annual public outreach and education activities to improve awareness of flood hazards, benefits of flood planning, and procedures associated with emergency response associated with flooding. | Establish a baseline measurement | 50 |
| C | Increase the number of communities that work cooperatively as part of an overall floodplain management program. | 5 | 25 |

## Goal 7. Expand Funding

| Goals | Specific Goal Statements | Short Term (2033) | Long Term (2053) |
|---|---|---|---|
| A | Increase communities with dedicated stormwater funding mechanisms | 10% | 30% |

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