

Project name:
Upper Rio Grande 2023 Regional Flood Plan**Project ref:**
60660436**From:**
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November 16, 2021**To:**
Upper Rio Grande Regional Flood
Planning Group (RFPG)

Memo

Subject: Adoption of Flood Mitigation and Floodplain Management Goals and Recommendations

As part of the Upper Rio Grande (Region 14) Regional Flood Plan (RFP), the Regional Flood Planning Group (RFPG) in consultation with AECOM is evaluating the role of floodplain management and land use practices on existing and future flood risk throughout the Flood Planning Region (FPR). Through Task 3A and 3B of the Scope of Work, the RFP will:

- “Recommend forward-looking floodplain management and land use recommendations, and economic development practices and strategies, that should be implemented by entities within the FPR” (Task 3A), and
- “Identify specific and achievable flood mitigation and floodplain management goals along with target years by which to meet those goals for the FPR” (Task 3B).

To develop and refine these recommendations and goals, the Upper Rio Grande RFPG and AECOM formed Subcommittee 1 focused on Tasks 3A and 3B, conducting four public meetings from September to November 2021. These meetings were posted and held in accordance with the relevant provisions and guiding principles of Title 31 of the Texas Administrative Code (TAC) Chapters 361 and 362. The four Task 3 subcommittee meetings included:

- **September 30, 2021** – Introduction to floodplain management standards, practices, and goals
- **October 21, 2021** – Interactive goal development session and target years
- **November 4, 2021** – Presentation and discussion of draft floodplain management goals
- **November 11, 2021** – Presentation of draft region-specific recommendations and refinement of specific measurable goal targets and subcommittee recommendations to the RFPG

The recommendations and goals for RFPG adoption described in this memorandum were developed considering input from the RFPG provided during these Subcommittee 1 meetings as well as input from other regional stakeholders provided through the stakeholder survey.

Region 14 Floodplain Management and Land Use Recommendations (Task 3A)

The following region-specific floodplain management and land use recommendations should be implemented by entities within the FPR and are categorized as either *recommendations for minimum standards* or *general recommendations*:

- *Recommendations for minimum standards* include minimum floodplain management standards required for communities to participate in the National Flood Insurance Program (NFIP).

NOTE: In future Planning Cycles, these minimum standards recommendations may be adopted as minimum requirements by the RFPG which entities must meet to include flood needs (FMEs, FMSs, FMPs) in the Regional Flood Plan.

These minimum requirements will not apply to the 1st Planning Cycle Flood Plan (2023 Region/2024 State).

- *General recommendations* include all other region-specific recommendations which entities should implement apart from the NFIP minimum standards. While these general recommendations are strongly encouraged, the RFPG does not anticipate adopting them as minimum standards in future Planning Cycles.

Subcommittee 1 recommends to the RFPG the following region-specific *recommendations for minimum standards*:

- Participate (and maintain active status) in the National Flood Insurance Program (NFIP)
- Require development permits for all proposed construction to determine whether such construction is proposed within flood-prone areas and will be reasonably safe from flooding (44 CFR § 60.3a[1-4])
- Require new and replacement sanitary sewage and water supply systems within flood prone areas to be designed to minimize or eliminate infiltration of flood waters into the systems (44 CFR § 60.3a[1-5])
- Require additional minimum standards for flood-prone areas associated with designated special flood hazard areas (Zone A and AE) (44 CFR § 60.3b-d)
- Require additional minimum standards associated with mudslide (i.e. mudflow)-prone areas (44 CFR § 60.4)
- Require additional minimum standards associated with flood-related erosion-prone areas (44 CFR § 60.5)

In addition to the *recommendations for minimum standards*, Subcommittee 1 recommends to the RFPG the following region-specific *general recommendations*:

- Establish local flood outreach and awareness programs (addressing flood risk, resiliency, and mitigation), including providing access to FEMA informational resources
- Coordinate with TxDOT and NWS to use flood warning signs, traffic message boards, and other media (TV, radio, social media) to communicate flood warnings
- Conduct public outreach to identify ongoing flood needs (data gaps, flood management strategies, and flood mitigation projects)
- Develop and maintain local stormwater asset management plans

- Adopt higher-than-NFIP-minimum standards (e.g., higher freeboard) and participate in the TFMA Higher Standards Survey
- Enroll in CRS Program for reduction in flood insurance premiums and flood risk
- Consider and incorporate nature-based practices in flood mitigation projects where possible

Region 14 Floodplain Management and Land Use Recommendations (Task 3B)

The Flood Plan Task 3B Scope of Work requires the RFPG adopt both Short-Term (10-year) and Long-Term (30-year) flood mitigation and floodplain management goals. These goals help to establish the RFPG's objectives and priorities for the first-cycle flood plan. With input from the RFPG provided during Subcommittee 1 meetings, 27 individual goals were identified with the following objectives:

- Improve floodplain management practices and design standards (Goals 01001, 01002, 02001, 02002, 02003, and 03001)
- Increase flood protection of unaccredited levees (Goal 04001)
- Increase availability of flood gages (Goal 05001)
- Improve region-wide flood warning and communication (Goals 06001 and 06002)
- Increase community flood awareness and Flood Plan participation (Goals 07001 and 07002)
- Improve coverage of flood hazard data through flood mapping (Goals 08001 and 08002)
- Reduce flood risk to structures and low water crossings (Goals 09001, 09002, 09003, 09004, 10001, and 10002)
- Increase use of regional stormwater detention (Goal 11001),
- Increase use of nature-based practices (Goal 12001),
- Increase use of dual-use flood mitigation/water supply structures (Goal 13001),
- Increase communities with stormwater asset management plans (Goal 14001), and
- Increase communities with new and/or dedicated flood funding sources (Goals 15001 and 15002).

The draft goals to be adopted by the RFPG are presented in **Table 1**. These goals will be discussed and adopted by the RFPG during the November 30 general meeting. This memorandum is provided with 14-days Public Notice prior to the adoption to meet the requirements of TAC 361.21(h)(2) and other applicable provisions.

Table 1: Regional Flood Plan Flood Mitigation and Floodplain Management Goals

Goal ID	Goal	Term of Goal	Target Year	Applicable To	Residual Risk	How Will the Goal Be Measured	Overarching Goal	Associated Goal IDs
01001	Increase NFIP participation or adoption of equivalent standards with 90% of communities meeting qualifying standards	Short Term (10-year)	2033	Entire RFPG	Improved floodplain management practices limit flood risk increases to existing structures; annual flood risk to new construction in participating communities will be less than 1%	Number of entities participating in NFIP; number of entities with equivalent standards	Adoption of floodplain management practices to reduce future flood risk (362.3.b.6)	01002
01002	Enroll all current non-participating communities into the NFIP and maintain 100% community enrollment with no suspensions or sanctions	Long Term (30-year)	2053	Entire RFPG	Improved floodplain management practices limit flood risk increases to existing structures; annual flood risk to new construction will be less than 1%	Number of entities participating in NFIP; number of entities with equivalent standards	Adoption of floodplain management practices to reduce future flood risk (362.3.b.6)	01001
02001	Increase number of communities that have adopted higher-than-NFIP-minimum standards	Short Term (10-year)	2033	Entire RFPG	Adopting higher floodplain management standards may help to reduce flood risk to existing and new structures; residual flood risk to structures will remain for flood events with less than 1% annual occurrence	Number of communities that have adopted higher-than-NFIP-minimum standards	Adoption of floodplain management practices to reduce future flood risk (362.3.b.6)	02002, 02003
02002	Increase number of communities enrolled in CRS Program	Short Term (10-year)	2033	Entire RFPG	Enrolling in the CRS Program may help to increase community flood awareness and reduce flood risk to existing and new structures; residual flood risk to structures will remain for flood events with less than 1% annual occurrence	Number of communities that have enrolled in CRS Program	Adoption of floodplain management practices to reduce future flood risk (362.3.b.6)	02001, 02003
02003	Improve CRS rating for the City of El Paso (which has a current CRS Rating of 9)	Short Term (10-year)	2033	HUC 8 Watersheds 13040100, 13030102	Improving CRS Rating will help to increase community flood awareness and reduce flood risk to existing and new structures; residual flood risk to structures will remain for flood events with less than 1% annual occurrence	Improvement in City of El Paso CRS Rating	Adoption of floodplain management practices to reduce future flood risk (362.3.b.6)	02002, 02003

Goal ID	Goal	Term of Goal	Target Year	Applicable To	Residual Risk	How Will the Goal Be Measured	Overarching Goal	Associated Goal IDs
03001	Adopt recommended minimum stormwater infrastructure design standards applicable across the region	Short Term (10-year)	2033	Entire RFPG	Region-wide recommended minimum design standards would serve as a guide for communities to implement; residual flood risk will remain for flood events not typically covered in design standards or for communities that do not adopt	Development of recommended minimum stormwater infrastructure design standards	Adoption of floodplain management practices to reduce future flood risk (362.3.b.6)	n/a
04001	Increase flood protection of unaccredited levees to meet FEMA levee accreditation requirements and update flood mapping to account for any changes in levee accreditation status	Short Term (10-year)	2033	Entire RFPG	Residual flood risk will remain for flood events exceeding the design capacity of the accredited levees or for areas where levees remain unaccredited	Accreditation of current unaccredited levees by FEMA followed by associated risk map updates	Protect against loss of life and property (362.3.b.13-14)	n/a
05001	Increase the number of flood gages (rainfall and/or stream gages) in the region	Short Term (10-year)	2033	Entire RFPG	No changes in flood risk; additional flood gages would improve ability to validate or calibrate existing and new flood models	Number of rainfall and/or stream gages installed	Utilize best available science, data, models, and flood risk mapping (362.3.b.2)	n/a
06001	Develop and implement region-wide flood warning and emergency response program	Short Term (10-year)	2033	Entire RFPG	No physical changes in flood risk; a flood warning and emergency response program would provide advanced warning of flood risks to mitigate loss of life and property during a flood event	Implementation of regional flood warning system	Protect against loss of life and property (362.3.b.13-14)	06002
06002	Increase the number of entities that use flood warning signs, traffic message boards, and other media (TV, radio, social media) to communicate flood warnings	Short Term (10-year)	2033	Entire RFPG	No physical changes in flood risk; improved flood warning messaging services would provide critical information to communities to mitigate loss of life and property during a flood event	Number of entities using flood warning signs, traffic message boards, and other media to communicate flood warnings	Protect against loss of life and property (362.3.b.13-14)	06001
07001	Establish community-led flood outreach and awareness programs (addressing risk, resiliency, and mitigation) in 30% of communities in the region	Short Term (10-year)	2033	Entire RFPG	Flood risk for communities without flood outreach and awareness programs will be greater than in communities with these programs; in addition, outreach programs will only reach a portion of community members	Percentage of communities with community-led flood outreach and awareness programs	Enhanced public understanding of flood risk; equity and accountability in decision-making (362.3.b.3, 20-21, 26)	07002, 07003

Goal ID	Goal	Term of Goal	Target Year	Applicable To	Residual Risk	How Will the Goal Be Measured	Overarching Goal	Associated Goal IDs
07002	Establish community-led flood outreach and awareness programs (addressing risk, resiliency, and mitigation) in 90% of communities in the region	Long Term (30-year)	2053	Entire RFPG	Flood risk for communities without flood outreach and awareness programs will be greater than in communities with these programs; in addition, outreach programs will only reach a portion of community members	Percentage of communities with community-led flood outreach and awareness programs	Enhanced public understanding of flood risk; equity and accountability in decision-making (362.3.b.3, 20-21, 26)	07001, 07003
07003	Increase entity and public stakeholder participation in the regional flood planning process	Short Term (10-year)	2033	Entire RFPG	No direct change in short-term flood risk; increased stakeholder participation will lead to more comprehensive future regional flood plans and indirect flood risk reduction in the long-term	Number of entities and public stakeholders contributing to future-cycle RFPs	Cooperative planning with local, state, and federal partners (362.3.b.29)	07002, 07003
08001	Increase the coverage of flood hazard data across the region by completing studies in 40% of the areas identified as having current gaps in flood mapping in the first cycle Flood Plan	Short Term (10-year)	2033	Entire RFPG	No physical change in flood risk; completing FMEs will help to better identify flood risk, exposure, and vulnerabilities to life and property	Percentage of FMEs completed from the first-cycle RFP	Evaluate flood risk, exposure, and vulnerabilities to life and property (362.3.b.3-5)	08002
08002	Have complete coverage of flood hazard data across the region by completing studies in 100% of the areas identified as having current gaps in flood mapping in the first cycle Flood Plan and have an ongoing, funded maintenance plan for updates	Long Term (30-year)	2053	Entire RFPG	No physical change in flood risk; completing FMEs will help to better identify flood risk, exposure, and vulnerabilities to life and property	Percentage of FMEs completed from the first-cycle RFP	Evaluate flood risk, exposure, and vulnerabilities to life and property (362.3.b.3-5)	08001
09001	Remove 10% of the existing structures from 1% annual chance floodplain in the region (either by remapping or flood risk reduction)	Short Term (10-year)	2033	HUC 8 Watersheds 13040100, 13030102	90% of identified structures will have an annual risk of flooding of >1%; 10% of structures will have an annual risk of flooding of <1%	Number of structures removed from 1% annual chance existing flood hazard layer	Protect against loss of life and property (362.3.b.13-14)	09002, 09003, 09004
09002	Remove 25% of the existing structures from 1% annual chance floodplain in the region (either by remapping or flood risk reduction)	Short Term (10-year)	2033	Entire RFPG Except for HUC 8 Watersheds 13040100, 13030102	75% of identified structures will have an annual risk of flooding of >1%; 25% of structures will have an annual risk of flooding of <1%	Number of structures removed from 1% annual chance existing flood hazard layer	Protect against loss of life and property (362.3.b.13-14)	09001, 09003, 09004

Goal ID	Goal	Term of Goal	Target Year	Applicable To	Residual Risk	How Will the Goal Be Measured	Overarching Goal	Associated Goal IDs
09003	Remove 20% of the existing structures from 1% annual chance floodplain in the region (either by remapping or flood risk reduction)	Long Term (30-year)	2053	HUC 8 Watersheds 13040100, 13030102	80% of identified structures will have an annual risk of flooding of >1%; 20% of structures will have an annual risk of flooding of <1%	Number of structures removed from 1% annual chance existing flood hazard layer	Protect against loss of life and property (362.3.b.13-14)	09001, 09002, 09004
09004	Remove 50% of the existing structures from 1% annual chance floodplain in the region (either by remapping or flood risk reduction)	Long Term (30-year)	2053	Entire RFPG Except for HUC 8 Watersheds 13040100, 13030102	50% of identified structures will have an annual risk of flooding of >1%; 50% of structures will have an annual risk of flooding of <1%	Number of structures removed from 1% annual chance existing flood hazard layer	Protect against loss of life and property (362.3.b.13-14)	09001, 09002, 09003
10001	Remove 40% of the low water crossings from 10% annual chance floodplain in the region (either by remapping or flood risk reduction)	Short Term (10-year)	2033	Entire RFPG	60% of identified low water crossings will have an annual risk of flooding of >10%; 40% of low water crossings will have an annual risk of flooding of <10%	Number of low water crossings removed from 10% annual chance existing flood hazard layer	Protect against loss of life and property (362.3.b.13-14)	10002
10002	Remove 90% of the low water crossings from 10% annual chance floodplain in the region (either by remapping or flood risk reduction)	Long Term (30-year)	2053	Entire RFPG	10% of identified low water crossings will have an annual risk of flooding of >10%; 90% of low water crossings will have an annual risk of flooding of <10%	Number of low water crossings removed from 10% annual chance existing flood hazard layer	Protect against loss of life and property (362.3.b.13-14)	10001
11001	Increase the number of entities that utilize regional detention for floodplain management	Short Term (10-year)	2033	Entire RFPG	No change in flood risk for communities that do not utilize regional detention; regional detention does not fully remove flood risk but mitigates flooding for a specified area and design flood event	Number of entities utilizing regional detention	Protect against loss of life and property (362.3.b.13-14)	n/a
12001	Consider and incorporate nature-based practices in flood risk reduction projects	Short Term (10-year)	2033	Entire RFPG	No additional change in flood risk relative to other project types; nature-based solutions will reduce impacts to the environment	Number of flood risk reduction projects with nature-based components	Include strategies and projects that use nature-based features (362.3.b.17)	n/a
13001	Establish dual usage regional storage facilities for flood mitigation and water supply	Short Term (10-year)	2033	Entire RFPG	No changes in flood risk; dual-use projects will contribute to the water supply	Establishment of new dual-use flood mitigation/water supply structures	Contribute to the water supply where possible (362.3.b.18-19)	n/a

Goal ID	Goal	Term of Goal	Target Year	Applicable To	Residual Risk	How Will the Goal Be Measured	Overarching Goal	Associated Goal IDs
14001	Increase the number of communities with documented, operational, and fully funded stormwater asset management plans	Short Term (10-year)	2033	Entire RFPG	Entities without stormwater asset management plans have no change in flood risk; entities with new stormwater asset management plans have reduced risk due to better stormwater O&M practices	Number of new entities with stormwater asset management plans	Consideration of funding and long-term operation and maintenance (362.3.b.38)	n/a
15001	Increase number of new funding sources used to pay for implementation of flood management activities and decrease number of communities without a local funding source	Short Term (10-year)	2033	Entire RFPG	Entities without additional funding have no change in flood risk; entities with new funding sources have reduced flood risk as stormwater O&M and capital projects are funded and implemented	Number of entities with new funding sources for implementation of flood management activities	Consideration of funding and long-term operation and maintenance (362.3.b.38)	15002
15002	Increase the number of entities that have a dedicated drainage fee to help implement future Flood Mitigation Evaluations (FMEs) and Flood Mitigation Projects (FMPs)	Short Term (10-year)	2033	Entire RFPG	Entities without dedicated drainage fee have no change in flood risk; entities with dedicated drainage fee have reduced flood risk as stormwater O&M and capital projects are funded and implemented	Number of new entities with dedicated drainage fee for implementation of flood management activities	Consideration of funding and long-term operation and maintenance (362.3.b.38)	15001