

Hazard Mitigation Project Prioritization and Implementation Annex



Larimer County Emergency Management
4872 Endeavor Dr.
Johnstown, CO 80534

www.larimer.org/emergency

Table of Contents

Overview	3
Purpose and Scope	3
Mitigation Committee	3
Project Feasibility and Prioritization	4
Project Feasibility and Prioritization Matrix Methodology.....	5
Scoring for Ease of Implementation	6
Scoring for Mitigation Project Benefits.....	7
Mitigation Project Implementation Framework	9
Funding Identification.....	9
Project Design	10
Funding Application	11
Post-Award Coordination	11
Post-Award Implementation	11
Annex Maintenance	12
References	13

I. Overview

The Hazard Mitigation Project Prioritization and Implementation Annex (hereinafter referred to as the Implementation Annex) provides mitigation project feasibility, prioritization, and implementation guidance for the Larimer County Office of Emergency Management (OEM) and partners. The Implementation Annex accomplishes this by providing a Project Feasibility and Prioritization Matrix and a Mitigation Project Implementation Framework. The Implementation Annex also contains the charter for the Larimer County Mitigation Committee, tasked with fostering hazard mitigation projects through collaboration and the identification of funding sources. These tools will be used to help guide mitigation activities and decisions within Larimer County.

II. Purpose and Scope

The value of mitigation has become increasingly clear over the last decade, and the amount of federal dollars allocated for mitigation projects continues to increase. In addition, throughout Larimer County, many possible mitigation projects have been identified through internal planning activities and external partners. This Annex is meant to complement existing work in Larimer County by providing guidance for mitigation project feasibility, prioritization, and implementation. In doing so, the Implementation Annex provides processes that will expand Larimer County's capacity to capture more mitigation funding by streamlining the project prioritization and implementation process; further, build resiliency in Larimer County.

The Implementation Annex was developed by Larimer County OEM but may be used by other internal departments or external partners when determining project feasibility, prioritization, and/or implementation planning. This Annex is designed to facilitate Larimer County OEM's mission "to create sustainable communities and to protect life and property by empowering all who live, work, and visit the County to prevent, mitigate, prepare for, respond to and recover from all types of emergencies and disasters" by using non-organization specific metrics. Instead of using prioritization metrics like, "Is this project within the Larimer County Hazard Mitigation Plan," the prioritization metrics take a triple-bottom-line approach, focusing on people, planet, and economic value. This ensures that the tools within this Annex provide value to all mitigation partners within Larimer County.

III. Larimer County Mitigation Committee

Mitigation projects are not the sole responsibility of the Larimer County Office of Emergency Management. Many other County departments and external partners work within mitigation, and mitigation projects often involve multiple stakeholders and the need for collaboration. Recognizing this, Larimer County OEM has created the Larimer County Mitigation Committee (LCMC). LCMC is comprised of county departments and external partners that meet regularly to discuss mitigation work within the county. The intent of the LCMC is to foster and encourage

mitigation projects within Larimer County through collaboration and the identification of potential projects and potential funding sources.

The LCMC meetings will be held routinely to discuss,

- The status of ongoing mitigation projects
- Proposed or planned mitigation projects and project needs
- Mitigation barriers
- New potential mitigation funding sources
- Identifying new potential opportunities
- And next steps

The LCMC holds no formal power in prioritizing potential projects but may utilize the Implementation Annex to make informal recommendations and prioritizations.

IV. Project Feasibility and Prioritization

In a perfect world, mitigation projects would be prioritized based solely on the overall benefits of the mitigation treatment. However, the reality is that the difficulty of project implementation (or feasibility) is a barrier and should be considered when prioritizing mitigation projects. Because of this, we must evaluate both project benefits and the barriers in place that limit our capacity to do the projects when prioritizing. The Larimer County Office of Emergency Management has created a Project Feasibility and Prioritization Matrix (PFP Matrix) to account for the balance between project benefits and overall capacity to handle the project.

Determining mitigation project feasibility will identify project barriers, while prioritization will identify the overall project benefits (and non-benefits). In doing so, project barriers can be eliminated, and project weaknesses (the non-benefits) can be addressed before the project is implemented. Feasibility and prioritization should not necessarily be used to 'throw out' a proposed project but instead to evaluate it, improve its weaknesses, and remove barriers to improve the project when possible.

Project Feasibility and Prioritization (PFP) Matrix

----- Mitigation Project Benefits (MPB) ----->

4	4	5	6	7	8
3	3	3.75	4.5	5.25	6
2	2	2.5	3	3.5	4
1	1	1.25	1.5	1.75	2
0	0	0	0	0	0
	1	1.25	1.5	1.75	2

----- Feasibility ----->

Project Feasibility and Prioritization Matrix and Methodology

The PFP Matrix evaluates two factors when prioritizing projects. Feasibility, along the x-axis of the PFP Matrix, essentially evaluates if the project is doable. Feasibility scores range from 1 to 2. Mitigation Project Benefits, along the y-axis, assesses the project benefits, capturing the ideal prioritization if feasibility were a non-factor. Benefits scores range from 0 to 4. The larger benefits scale gives the project benefits a higher weight than the feasibility; this ensures that projects with large benefits are not overlooked simply because they are more challenging to implement. Guidance on how to calculate feasibility and benefits scores are provided in the subsequent sections.

Feasibility and benefits scores are multiplied together to determine the overall Project Feasibility and Prioritization (PFP) score, which ranges from 0 to 8. The multiplication of the scores, instead of addition, ensures that projects with no project benefits (a score of 0) also receive a 0 in the PFP score. This ensures projects that lack benefits are not considered, no matter how easy they are to implement. PFP scores provide a numerical prioritization of potential migration projects by balancing feasibility with ideal prioritization based on project benefits. The final project prioritization is ultimately up to the discretion of the group pursuing the project.

A project that scores 7 or above is a high priority and considered a feasible project, a score of 4 to 6.5 indicates some pre-existing barriers or project weaknesses exist. A score of 3 to 4.5 again indicates either pre-existing barriers or project weaknesses exist but to a larger degree. A score of 1 to 2.5 indicates a project has significant barriers and or project weaknesses and should be examined to determine how to improve the score before implementation. Again, projects with a score of 0 should not be considered, as they lack clear hazard migration benefits. Scores in the PFP Matrix in red font indicate that two or more project barriers exist for the proposed project. These barriers should be examined carefully before proceeding to project implementation as they could impact feasibility but should not necessarily deter from project implementation.

Scoring for Feasibility

Four potential factors are considered when determining feasibility; time, money, risk of failure, and ability. In the PFP Matrix, a project is given a base score of 1 (most difficult to implement) for feasibility. Each of the four factors is worth a quarter of a point, increasing a project's feasibility score. The points for each factor are awarded on an all-or-nothing basis independent of one another. The scores for each feasibility factor are added together. The max feasibility score for a project is 2 (easiest to implement).

$$\text{Feasibility} = 1 + \text{Time} + \text{Money} + \text{Risk of Failure} + \text{Ability}$$

Time (0.25 points): If a proposed project requires a reasonable amount of time to implement, 0.25 points are awarded to the project's feasibility score. Several factors determine project time. These include, but are not limited to

- The level of coordination required across internal and external partners.
- Both the overall length of time of the project and the percentage of that time that will be dedicated to managing the project.
- The amount of administrative work required to complete and financially manage the project.

Money (0.25 points): If a proposed project requires relatively little financial support, 0.25 points are awarded to the project's feasibility score. Several factors determine project financial needs. These include, but are not limited to

- The availability of and ease of obtaining grant support for the project type.
- The amount of local match required for the project, and the availability and ease of obtaining match for other sources.
- The amount of long-term financial support the project requires (i.e. maintenance costs).

Risk of Failure (0.25 points): If a proposed project has a relatively low risk of failure, 0.25 points are awarded to the project's feasibility score. Several factors determine project risk of failure. These include, but are not limited to

- The level of dependency on other projects or partners to get the project up and running.
- The need for a policy change (within our organization, or another) in order to make the proposed project viable.
- The need for public buy-in or approval.
- The level of support across departments, external partners, and within existing plans.

**Note: Risk of Failure does NOT refer to whether or not the project will effectively mitigate a hazard, but rather the likelihood of getting the project up and running.*

Ability (0.25 points): If a proposed project is well within an organization's ability to complete the project, 0.25 points are awarded to the project's feasibility score. Several factors determine an organization's ability. These include, but are not limited to

- The level of existing knowledge or expertise about the project.
- The ability of current staffing to adequately handle the project needs/workload.
- The ability for existing partnerships and/or organizational structure to effectively manage the project.

Scoring for Mitigation Project Benefits

Benefits scoring takes a triple bottom line approach by awarding project points independently for three factors, people, planet, and profit (fiscally responsible). By scoring mitigation project benefits using the triple bottom line, projects that are the most sustainable will rise to the top, or those with the most substantial benefits for people, the planet, and which are fiscally responsible.

Benefits scores range from 0 to 4. A benefits score of 4 indicates a project with the greatest benefits, and a score of 0 indicates a project with negligible benefits. A proposed project with a benefits score of 0 does NOT mean that there are no benefits, but instead those benefits are minor and should be reworked to increase the benefits score. Scores for people and planet are added together and then multiplied by profit (fiscally responsible). The multiplication with profit ensures that projects that aren't fiscally responsible score a 0 in the PFP Matrix.

$$\text{Benefits} = (\text{People} + \text{Planet}) \times \text{Profit}$$

People (0-2 points): The level at which a proposed project serves the community. A score of 0, 1, or 2 points can be given for this factor.

- 0 points: The proposed project serves a very limited number of people (or none) either directly or indirectly.
- 1 point: The proposed project serves a relatively large number of people either directly or indirectly.
- 2 points: The proposed project serves a relatively large number of people either directly or indirectly and
 - serves important community facilities and/or
 - contains an equity component, like serving an underserved community.

**NOTE: A score of 0 may NOT mean that the proposed project has zero benefits to the community.*

Planet (0-2 points): The level of the proposed project's positive environmental impact.

- 0 points: The proposed project provides a limited positive environmental impact (or none) either directly or indirectly.
- 1 point: The proposed project provides a relatively large positive environmental impact either directly or indirectly.
- 2 points: The proposed project provides a relatively significant positive environmental impact either directly or indirectly, and the area served is of significant environmental value either directly or indirectly.

**NOTE: A score of 0 may NOT mean that the proposed project has zero positive environmental impact.*

Profit (0-1 points): Whether or not the proposed project is fiscally responsible or not. This category is either a yes or no. A fiscally responsible project will be awarded 1 point and should demonstrate....

- A favorable cost-benefit ratio (or likely has a favorable cost-benefit ratio, if currently unknown) or
- A favorable social or environmental benefit (i.e. protecting a historic structure that means a great deal to the community or an advanced warning system meant to protect the community).

A score of 0 for this factor will result in a score of 0 in the PFP Matrix. A proposed project must prove fiscal responsibility otherwise, it is not a viable project.

VI. Mitigation Project Implementation Framework

Mitigation project implementation differs from your typical project implementation in that the funding sources for such projects are not always initially known and are primarily supplied by external sources/grants and come with additional conditions or requirements. This results in the need to incorporate the fund source considerations into project implementation planning. The Mitigation Project Implementation Framework was developed to account for this key difference.

This framework divides project implementation activities into two main roles, the Project Coordinator and the Content Expert. The Project Coordinator is responsible for funding source identification, application, and coordination. The Content Expert is the lead for Project Design and Implementation Planning and Post-Award Implementation, as they are the expert for the mitigation treatment. Larimer County OEM typically takes ownership of the Project Coordinator role, while a county department, contractor, or external partner typically owns the Content Expert Role. It is important to identify the Project Coordinator and Content Expert early on in the project implementation process.

Major Project Responsibilities

	Funding Identification	Project Design & Implementation Planning	Grant Application	Post-Award Coordination	Post-Award Implementation
Project Coordinator	Lead	Secondary	Lead	Lead	Secondary
Content Expert	Secondary	Lead	Secondary	Secondary	Lead

Funding Identification

Some mitigation projects will have a clear funding source; however, a mitigation project may sometimes be identified but lack a funding source. In this case, the Project Coordinator should identify possible sources of funding and present these options to the Content Expert. Source of the match (typically 25%), funding source time constraints, and any additional funding source requirements should be identified, and all project partners should be a part of this discussion.

Project Design & Implementation Planning

Once a mitigation project has an identified funding source, information collected during the PFP scoring process should be utilized to build out the Project Design and an Implementation Plan. The Content Expert will lead this endeavor, while the Project Coordinator will assist as needed. The Content Expert should ensure that all necessary stakeholders are involved in the project design process. The Project Coordinator should ensure that the sponsor/funding source is included in the design process as required. The following should be formalized during this process, though it may not be detailed until the funding source is secured.

1. Identifying and removing or mitigating obstacles identified in the PFP process.
The Project Coordinator and Content Expert should work together with project partners to ensure obstacles identified in the PFP process are acknowledged and mitigate or remove these obstacles when possible.
2. Project scope
The Content Expert should lead the project scoping process, identifying the overall goals and extent of the project. This includes identifying possible partners and including them in the project scoping conversations. The Project Coordinator will assist as needed.
3. Project objective
The Content Expert will take the lead in setting project objectives. Project partners should be included when setting these objectives. The Project Coordinator will assist as needed.
4. Project timeline and deliverables
The Content Expert will take the lead in setting the project timeline. Including the identification of deliverables. Project partners and the funding source should be included in this process. The Project Coordinator will assist as needed.
5. Roles and responsibilities of all involved
The Content Expert should delegate roles and responsibilities for the project with project partners as needed. This includes identifying if a contractor is needed and writing the RFP to obtain the contractor.
6. Project Budget
The Content Expert will take the lead on developing a project budget. The Project Coordinator will assist as needed. The project partners and funding source should be included as needed.

Funding Application

The Project Coordinator should submit the funding application with assistance from the Content Expert. The Project Coordinator is responsible for ensuring all application requirements are met and coordinating between the Content Expert and the funding source as needed during the application process.

Post-Award Coordination

After the funding source is awarded, the Project Coordinator is the lead for the continual coordination between the funding source and the Content Expert. This includes the coordination of any documentation as the project is implemented and ensuring that the funding source requirements and deliverables are met, in addition to identifying allowable and non-allowable costs.

Post-Award Implementation

The Content Expert is the lead for the implementation of the project. The Project Design and Implementation Planning from Step 2 should be revisited and fully built out once funding is secured. In addition to revisiting items a. through f. from Step 2, two additional planning items should be addressed to ensure successful project implementation.

1. Project and funding source requirements and deliverables

The Project Coordinator will work with the Content Expert to ensure that project continues to meet funding source requirements and that funding source deliverables are met.

2. Project communications plan

The Project Coordinator and Content Expert should work together to develop a clear communication plan between all partners and the funding source to ensure that information is shared in a timely and consistent manner once the project is underway.

VII. Annex Maintenance

It is the responsibility of the Larimer County Office of Emergency Management to update this Annex regularly to reflect the necessary changes.

VIII. References

The PFP Matrix is loosely based upon the academic literature

JOSEPH, LIANA N., et al. "Optimal Allocation of Resources among Threatened Species: A Project Prioritization Protocol." *Conservation Biology*, vol. 23, no. 2, 2009, pp. 328–338., <https://doi.org/10.1111/j.1523-1739.2008.01124.x>.

The Mitigation Project Implementation Framework is based upon the Rogue Community College Grant Development Planning Guidelines

<https://web.roguecc.edu/sites/web.roguecc.edu/files/Sites/Grants/pdf/GrantsTeamPlanningModel%207-6-15.pdf>