## **Monitoring Plan**

## **Purpose:**

To monitor how hazards, equity, and resilient systems are changing after your community has gone through the ERB process.

Monitoring and evaluation take effort and can ensure that actions and implementation efforts are aligned with equity and resilience needs and priorities. They help achieve accountability, one of the equity principles for ERB. Funders may want to see evidence that their funds are being used effectively to improve resilience.

## **What you will need**

**Who:** core team or implementation action team

**Where:** in-person or virtual meeting

**How long will it take:** two 1-2 hour meetings; additional team or individual work time

**Materials:** Copies of the table below, Indicator Cards, and Indicator Diagram

## **Instructions**

1. Meet with your core team and the people you worked with on your Implementation Plan.
2. Complete the table below for each action your team selected to implement (identified during ‘Results to Action’ Workshop).
3. Look at which resilient systems data you might want to track over time.
   1. The North Farm Creek example can be used as a guide as needed.

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| --- | --- | --- | --- | --- | --- | --- | --- |
| ***Action*** | **Planned outcome** | **Milestones** | **Equity goals met?** | **Evaluation Tools** | **Modification Necessary If…** | **Potential adaptive actions to stay on track** | **Who’s responsible for monitoring?** |
| *[insert action from previous sections of ERB]* |  |  |  |  |  |  |  |
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| EXAMPLE |  |  |  |  |  |  |  |
| Improved water quality in North Farm Creek tributary using green infrastructure | Lower pollutant loads through the TMDL process | 5 years: 50% implementation of structural BMPs  10 years: implementation of all structural BMPs | Implementation prioritized in areas with a low GI Equity Index score | Precipitation trends; Nitrogen, phosphorous, and sediment impacts of green infrastructure facilities | Precipitation increases over historic levels; nitrogen runoff over TMDL levels | ​Implement non-structural BMPs to augment existing infrastructure to address unanticipated precipitation | Illinois Department of the Environment |

**Example:** North Farm Creek tributary of the Illinois River, Illinois Department of the Environment (DEP)

The Illinois DEP reviewed and selected management actions to analyze from the TMDL Implementation Plan. For each, they articulated the uncertainties most likely to affect TMDL attainment and influences of projected precipitation changes on BMP effectiveness, and then modeled the system, including uncertainties and actions. Outputs were used to simultaneously consider factors affecting vulnerability and adaptation action success under a wide range of projected futures to estimate which management actions would be most robust across those futures. Results showed that changes in precipitation could significantly affect the ability of the Implementation Plan to meet the TMDL targets for nitrogen, phosphorus, and sediment. Ability to meet the nitrogen TMDL was sensitive to annual average rainfall and the effectiveness of green infrastructure retrofitting. As a result, monitoring precipitation trends and BMP effectiveness was recommended to provide information on how to adjust the Implementation Plan over time to effectively track and respond to the future trajectory of precipitation and green infrastructure functioning.

## **What to do next**

Return to the ERB and complete your final reflection session.