

**U.S. Department of Transportation
Federal Highway Administration**

SUPPORTING STATEMENT B

**Promoting Resilient Operations for Transformative, Efficient, and Cost Saving
Transportation (PROTECT) Grant Program**

FHWA Project Monitoring and Program Evaluation Information Collections

OMB Control No. 2125-XXXX

Introduction:

This is a new request for information collection (IC) associated with the Federal Highway Administration's (FHWA's) PROTECT Competitive Grant Program. This supporting statement describes statutorily required project monitoring and program evaluation activities. A second supporting statement under this control number covers regular Grant Administration and Technical Assistance collections for the program.

FHWA is required by 23 U.S.C. 176(f)(1) to establish effectiveness metrics and evaluation procedures for this grant program. FHWA will select a representative sample of funded projects to evaluate to fulfil this requirement. Projects selected as part of this representative sample will have additional reporting requirements. FHWA intends to share the information and findings gleaned from this evaluation effort with transportation agencies to help them improve the resilience and durability of their transportation infrastructure to extreme weather.

- * Responding to the collection is voluntary and is required to obtain or retain a benefit.
- * Responders are Metropolitan Planning Organizations (MPOs), States or political subdivisions of a State (including the U.S. Territories Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands), units of local governments, special purpose districts or public authorities with a transportation function, including port authorities, Indian Tribes (as defined in 23 U.S.C. § 207(m)(1)), Federal land management agencies, and multijurisdictional groups comprised of these entities.
- * The collection is statutorily required project monitoring led by FHWA that will inform an outcome evaluation.
- * The information is collected as needed.
- * A Notice of Funding Opportunity (NOFO) notifies applicants that FHWA will select a representative sample of projects to evaluate their effectiveness, and that projects selected as part of this representative sample may have additional reporting requirements. Project monitoring results do not impact award decisions.
- * FHWA will notify recipients of projects selected for monitoring.
- * The information will be collected by both FHWA and the grant recipients.
- * The information will be received by FHWA.
- * The purpose of the collection is to evaluate the effectiveness and impact of projects funded under the PROTECT Competitive Grant program per 23 U.S.C.

176(f)(1).

Part A. Justification.

1. Circumstances that make collection of information necessary:

Section 11405 of the Infrastructure Investment and Jobs Act (IIJA, Pub. L. 117-58, Nov. 15, 2021), established the PROTECT Competitive Grant program, which is codified at 23 U.S.C. § 176. The purpose of the program is to plan for and strengthen surface transportation to be more resilient to current and future weather events, natural disasters, and changing conditions, such as severe storms, flooding, drought, levee and dam failures, wildfire, rockslides, mudslides, sea level rise, extreme weather, including extreme temperature, and earthquakes.

FHWA is statutorily required to establish performance metrics for this program per 23 U.S.C. 176(f)(1). The statute calls for FHWA to also establish procedures to evaluate the impact and effectiveness of a representative sample of PROTECT Competitive Grant Projects.

In addition, this collection will inform a U.S. DOT program evaluation. the [U.S. DOT 2025 Evaluation Plan](#) calls for FHWA to complete a process and outcome evaluation for the PROTECT Competitive Grant Program to meet Evidence Act requirements.

The resulting evaluation will determine whether projects achieve program goals such as reducing transportation infrastructure vulnerability to extreme weather, improving evacuation routes, and minimizing long-term costs. This evaluation will play a critical role in building the evidence base for effective strategies to enhance the resilience of U.S. surface transportation infrastructure.

2. How, by whom, and for what purpose is the information used:

The information collected will be used by FHWA in evaluating PROTECT project outcomes. It will also be used to contribute to the evidence base on effective practices for improving surface transportation resilience that State and local governments may consider replicating.

The program estimates 200 applicants will be awarded PROTECT Competitive Grant funding over the 5 grant years. Project evaluation information will primarily be collected by FHWA, but some of the project evaluation information will be collected by grant recipients. Information may already be gathered through existing collections by project sponsors and grant recipients (e.g., traffic incident data). Some of the performance measurement information, however, will require extra efforts on the part of the selected grant recipients to collect.

The purpose of this information collection is to allow the Federal government to assess the performance gains achieved through the PROTECT investments at the project level. The evaluation will focus on process and outcome elements to understand how the program is implemented and whether it achieves its intended goals. The evaluation will use performance metrics developed by FHWA for the PROTECT program, which were

refined through public comment. In addition to these metrics, the evaluation will include qualitative data collection (e.g., interviews) to support mixed methods analysis.

This information will facilitate the comparison of investments against each other to assist the government in understanding why some PROTECT investments perform differently from others, which will permit Federal Executive and Congressional evaluation of the program.

The evaluation will also include a cost analysis, using grantee-reported financial data to assess budget adherence, cost-effectiveness, and potential lifecycle savings. This will help determine whether the program delivers value relative to its investment.

3. Extent of automated information collection:

Any project monitoring data collected by FHWA will be provided electronically. FHWA will conduct surveys electronically or use online collaboration tools to reduce burden and improve efficiency. This technology will allow FHWA to ask a mix of question types and automatically collect data. Surveys will include branching to decrease the number of unnecessary questions respondents must answer, therefore reducing burden.

4. Efforts to identify duplication:

The information collected from grantees is project-specific and the information would not be available other than from the grantees. The information will be used to monitor projects on a regular basis as appropriate for each performance metric used to evaluate the impact of the project.

5. Efforts to minimize the burden on small businesses:

Grantees include local and State governments, Tribal governments, MPOs, and other political subdivisions of State or local governments such as cities and counties. No grantees are business organizations, small or otherwise.

6. Impact of less frequent collection of information:

If the metrics data are not collected, the Department will not be able to evaluate project effectiveness and outcomes in accordance with 23 U.S.C. 176(f).

7. Special circumstances:

During severe weather events, FHWA may require access to project sites to collect field data and observe performance of resilience projects in real time. Otherwise, all information collected is consistent with the guidelines in 5 CFR 1320.6.

8. Compliance with 5 CFR 1320.8:

This 3-year clearance is requested pursuant to 5 CFR 1320.8(d)(4).

FHWA published the 60-day notice to the Federal Register to solicit comments from the public on December 3, 2024, at [89 Fed. Reg. 95895].

FHWA published a 30-day notice to the Federal Register informing the public of FHWA's response to any comments and submission to OMB for review on **DATE [FR CITATION]**.

9. Payments or gifts to respondents:

No payment is made to respondents, other than remuneration to successful PROTECT grantees. The remuneration to grantees is in the form of reimbursements up to the amount of the PROTECT grant award as negotiated in the signed and executed grant agreement.

10. Assurance of confidentiality:

There is no assurance of confidentiality regarding these submissions.

Prior to any data collection, FHWA's Evaluation Consultant's Institutional Review Board (IRB) will review all protocols to ensure compliance with ethical guidelines and regulations for human subjects research. This includes obtaining informed consent from all participants, clearly outlining the purpose of the evaluation, the types of data collected, how the data will be used, and the measures taken to protect their privacy.

During data collection, the evaluation team will follow strict protocols to de-identify data whenever possible, replacing direct identifiers with codes. Sensitive data is stored on secure, password-protected servers with restricted access, adhering to robust cybersecurity measures. All team members, who have completed extensive privacy and data security training, will be granted access to participant data. Furthermore, all reporting of findings will be done in an aggregated manner, ensuring that no individual participant can be identified.

11. Justification for collection of sensitive information:

None of the information is of a sensitive nature.

12. Estimate of burden hours for information requested:

FHWA has calculated an annual burden associated with collection of project monitoring data and coordination with FHWA and FHWA's evaluation contractors. The calculations are based on the cost of activities for the first 3 years of project monitoring per the PRA coverage limitation. The program is expected to renew the information collection request to complete the evaluation activities for grantees in all years.

Activity	Respondents	Total Responses	Average Annual Time (hours) per Response	Frequency	Total Burden (hours)	Total Dollar Cost Equivalent (Three Year Total)
Notification and Initial Coordination Meeting	Selected Sample	50	4	One time	200	\$16,400
Baseline Data Collection/ Coordination with FHWA (not including Planning Grant Recipients)	Selected Sample	40	15	One time	600	\$49,200
FHWA-led Interviews	Selected Sample	100	2	One time	200	\$16,400
Annual Metrics Project Monitoring Coordination with FHWA (Planning Grants)	Selected Sample	10	6	Annual	60	\$4,920
Annual Metrics Project Monitoring Coordination with FHWA, Including Any Site Visits Post-Event (Construction Grants)	Selected Sample	40	25	Annual	1000	\$82,000
Evaluation Update Calls with FHWA and Metrics Follow-Up	Selected Sample	50	4	Annual	600	\$49,200
Evaluation Survey	Selected Sample, may be made available to other grantees on voluntary basis	Up to 200	0.5	One time	100	\$8,200
Case Study Development	Selected Sample	8	4	One time	32	\$2,624
TOTAL	N/A	N/A	N/A	N/A	\$2,792	\$228,944

The average hourly salary rate for a respondent is \$50.44, based on an estimated median average wage of a [project management specialist in the local government sector per Bureau of Labor Statistics](#), which is factored by 1.62 to account for the cost of employer-provided benefits ([Bureau of Labor Statistics, Employer Costs for Employee](#)

[Compensation, March 2025](#)) resulting in a total labor cost of \$81.71 per hour. Estimated total annual cost to respondent: 2,792 hours x \$82 per hour = \$228,944.

13. Estimate of total annual costs to respondents:

There is no additional cost beyond that shown in items 12 and 14.

14. Estimate of cost to the Federal government:

The evaluation effort includes effort by contractors. The total contract is \$3.8 million over 5 years with an average cost of \$0.76 million annually.

The annual estimated cost of Federal staff apart from the FHWA contractor support is \$2.7 million. This estimate is based on expected Federal staff coordination support and an approximate salary rate of a Federal employee at GS-14, Step 5 of \$77.38 per [OPM's Salary Table 2025-DCB](#) with which is factored by 1.62 to account for the cost of employer-provided benefits ([Bureau of Labor Statistics, Employer Costs for Employee Compensation, June 18, 2024](#)), resulting in a total labor cost of \$125.36 per hour.

Metric	Grant Activity/ Process	Total Responses	Average Time (hours) per Response	Frequency	Total Annual Burden Hours/Cost	Total Federal Cost
FHWA Data Collection Contract Support	Project Monitoring & Evaluation	N/A	N/A	Annual	\$0.76 million	\$2.28 million
Federal Staff	Project Monitoring & Evaluation	N/A	½ FTE	Annual	1,040	\$391,123
TOTAL						\$2.7 million

15. Explanation of program changes or adjustments:

There are no program changes or adjustments.

16. Publication of results of data collection:

Evaluation results will be briefed to the FHWA Leadership Team and then disseminated to agency staff as needed. In addition, the final report may be made publicly available on FHWA's website and shared with external stakeholders upon request.

17. Approval for not displaying the expiration date of OMB approval:

There is no reason not to display the expiration date of OMB approval.

18. Exceptions to certification statement:

No exceptions are stated.

Part B. Collections of Information Employing Statistical Methods

The following five questions must be answered only if Item 17 on Form OMB 83-I is "Yes." If the information collection involves statistical methods, the OST will request a review and concurrence from the Bureau of Transportation Statistics (BTS) before sending it to OMB.

1. Universe and respondent selection

- Target universe: A metrics monitoring cohort of up to 50 grantees will be selected using stratified sampling. Selection will be based on grant type, recipient entity (state DOTs, MPOs, local governments, tribal entities, special purpose districts) type of hazard addressed, geographic location, project scale and funding level, and data availability.
- A survey of the 50 projects will document collaboration, implementation practices, barriers, facilitators, and emerging strategies. This survey will collect information on how grantees have put their planning and resilience improvement projects into practice, allowing for a detailed examination of the key barriers and facilitators that have influenced their work. By capturing the real-world, on-the-ground experiences of all funded projects, the survey will also serve as a crucial tool for identifying and documenting any innovative or emerging practices that have resulted from their grant-funded efforts. Additional grantees may opt in to participate in the survey on a voluntary basis.
- FHWA will also conduct in-depth qualitative interviews with these 50 projects. Each selected project may participate in one to two interviews, yielding up to 100 interviews total. These interviews will provide rich, contextual insights into implementation dynamics, decision-making processes, and lessons learned.
- Participants are identified based on contact information provided to FHWA's grants management database or other internal FHWA data sources, such as grant applications. While program participants have also been designated as points of contact by the program participant.
 - o FHWA may request program participant personnel confirm their involvement with the grant program and provide any additional points of contact within their organization who have interacted with the program and may be candidates for survey and focus group participation.
 - o FHWA will also leverage FHWA's Division (State) offices and Headquarters program offices to identify and engage points of contact.
- Up to eight grantees will be selected for storyboard case study development. These projects will be selected to demonstrate innovation, effectiveness, and diversity in geographic location, hazard type, and grantee profile. Selection criteria will also include the integration of nature-based solutions, measurable resilience outcomes, and stakeholder engagement. These case studies will provide a more in-depth and nuanced understanding of best practices for others to replicate.

2. Procedures for collecting information

- Methods of information collection may include surveys, online data collection platforms, field data collection by FHWA, in-depth interviews and focus groups to

understand program participant experiences in implementing eligible activities with grant funds.

- Duplication is not anticipated between the survey and interview questions. Questions will be piloted to test their appropriateness, see section 4, Tests of Procedures, for more information. Questions will be selected to reduce burden and increase their relevance to each program. Selection of questions will be tailored based on relevant program characteristics, such as grant type, applicant organizational type, or natural hazards addressed.

Metrics Project Monitoring

- A project monitoring cohort of up to 50 grantees will be selected using stratified sampling.
- The evaluation team will use a random sampling technique when selecting the grantees for this cohort (e.g., stratified cluster sampling with proportional allocation within strata) to ensure representativeness in the metrics monitoring data collection.
- Initial monitoring will begin with 29 grantees from the FY22/FY23 cohort, expanding to up to 50 total as additional awards are made.
- Grantees not selected for the metrics monitoring cohort may request to participate in the evaluation activities below. If capacity allows, they will be accommodated, though their data may be analyzed separately from the purposively selected sample.
- Project monitoring will capture quantitative data on maintenance costs, infrastructure durability, and cost savings over time. These data sources will be triangulated to assess cost-effectiveness, ROI, and potential long-term savings associated with PROTECT-funded resilience improvements.
- Metrics will be monitored over a three-to-five-year period (depending on the metric) for the representative subset of grantees, allowing for longitudinal tracking of progress and impact. Projects will be monitored at baseline and then annually thereafter for most metrics. In addition to routine metrics monitoring, the evaluation will incorporate event-based monitoring conducted by FHWA triggered by natural hazard events such as flooding, wildfires, or extreme weather. Respondent burden is factored into the average annual response time, assuming that an event happens once per selected grantee in the three-year period.
- Selected grantees will submit monitoring information needed by FHWA (i.e., monitoring data points not already collected by FHWA) through an online collaboration platform. Depending on the clarity and completeness of data submitted, FHWA may follow up by telephone or email with grantees to ensure the data collected enables the metrics to be robustly and consistently measured.

Survey

- A survey of the selected 50 grantees will be comprised of a mix of question types, including scale, select all that apply, multiple choice, and open-ended questions.
- Average time to complete each survey will be 30 minutes.
- Branching logic will be used to tailor questions based on grantee type and project stage, ensuring relevance and reducing respondent burden.
- To ensure high-quality data:
 - Built-in logic checks will prevent invalid or inconsistent responses
 - Duplicate entries will be flagged and resolved

- o Open-ended responses will be reviewed for completeness and relevance
- All data will be stored securely and managed in accordance with data protection protocols and IRB-approved procedures.
- The survey will be sent by an electronic mail message seeking participation. The message will include the appropriate hyperlink to the internet site that hosts the survey.
- FHWA may collect identifiers such as name of program participant organization, type of award received, respective state of the program participant organization, and role of the respondent at the participant organization. Contact information, including electronic mail address, may be requested to gauge interest in focus group participation but will not be mandatory. FHWA will not collect individual IP addresses from survey responses.
- No individual names or identifiers will be distributed that link responses to individuals. The information participants provide will be kept confidential and will not be disclosed beyond the researchers conducting the study, except as otherwise required by law.

Interviews

- In-depth interviews are a critical qualitative method within the PROTECT evaluation, designed to complement survey and document review data by capturing the nuanced experiences of grantees. These interviews will provide contextual insights into how projects were implemented, the challenges encountered, and the outcomes achieved or anticipated. They are particularly valuable for understanding the "how" and "why" behind implementation decisions, adaptations, and innovations.
- The evaluation team will develop a semi-structured interview guide.
- The guide will include 10-15 core questions, organized into three thematic sections that will be further tailored based on the grantee survey findings.
- All interview recordings will be transcribed using secure transcription software. Transcripts will be reviewed for accuracy and completeness, de-identified to remove personally identifiable information, and coded thematically using a structured codebook aligned with the evaluation questions.
- Intercooder reliability will be established using Cohen's kappa, and coding will be conducted in a qualitative data analysis platform (e.g., NVivo or MAXQDA). Notes from non-recorded interviews will be formatted and coded using the same procedures.

3. Methods to maximize response

General

- An initial notification for those projects selected for metrics project monitoring will be sent by electronic mail to program participants. The announcement will inform program participants that a program evaluation is occurring, their selection as part of the representative sample, and include a confirmation request for points of contact.
- A kick-off meeting will be held approximately 2 weeks later with selected project POCs and FHWA. This meeting will describe the upcoming evaluation, expectations for data collection and assign a "liaison" contact for each selected

- project from the evaluator team. The liaison will hold quarterly calls with the grantee to provide any necessary monitoring and evaluation technical assistance.
- The entire grantee universe (all grantees) will be invited to participate in a voluntary survey via email, with personalized outreach from FHWA and the evaluation team. The recruitment strategy will include:
 - o Initial invitation email with background on the evaluation and survey purpose
 - o Follow-up reminders via email to encourage participation
 - o Support channels for technical assistance or clarification during survey completion
 - Grantees will be informed that their responses will be kept confidential and reported in aggregate. Participation is voluntary, and respondents may skip questions or exit the survey at any time.

Survey

- The survey will be programmed using a secure, web-based platform that supports skip logic and branching.
- The survey will remain open for 4–6 weeks, with ongoing monitoring of response rates and targeted follow-up as needed.
- FHWA has set a goal to attain at least a 80% unit response rate and a 70% item response rate, aligned with the Office of Management and Budget (OMB) non-bias threshold described in the [OMB Standards and Guidelines for Statistical Surveys](#).
- The survey form will include detailed instructions and definitions of terms, including evaluation areas and response variables, helping users complete the survey and improving data quality. The questions are straightforward and do not require any computations or specialized data entry.
- Follow-up messages will be sent to non-responsive program participants via electronic mail two weeks after the survey window opens.
- A survey closing notification will be sent via electronic mail at the end of the survey window.
- FHWA does not intend to offer any special incentives for participating in the survey.

Interviews

- The 50-grantee selected sample will be sent emails to participate in the interviews. Recruitment will be staggered to align with survey completion, allowing the evaluation team to use survey findings to refine the interview sample.
- Once grantees have agreed to participate, they will be scheduled for an interview based on their availability.
- A consent form will be attached to the invitation, and, prior to the start of each interview, interviewees will be required to provide verbal consent.
- Interviews will be conducted using the virtual platform, Microsoft Teams. Each interview will be scheduled to last approximately 60 minutes and, with the interviewee's consent, will be audio-recorded and transcribed verbatim to ensure an accurate record of the discussion.
- If the interviewee does not consent to being recorded, a notetaker will be available to capture the discussion.

4. Tests of procedures

Metrics Project Monitoring

- Prior to launch, the online collaboration platform will undergo pilot testing with a small group of grantees, as feasible, to assess clarity, usability, and technical functionality. This will include testing the platform to ensure a straightforward user experience for grantees and proper data collection on the backend. Based on any pilot feedback, the platform prompts and functionality will be adjusted.

Survey

- Prior to launch, any surveys will undergo pilot testing with a small group of grantees, as feasible, to assess clarity, usability, and technical functionality.

Interviews

- Interview questions will also be piloted with a small group of grantees to ensure that the questions are clear and elicit the responses needed for the evaluation. Questions will be revised to enhance clarity and improve flow based on feedback obtained from piloting.

5. Contact for statistical aspects and data collection

- Eva Birk, FHWA Office of Natural Environment, eva.birk@dot.gov

List of All Exhibits for this Request:

EXHIBIT A

LEGISLATIVE AUTHORITY FROM THE INFRASTRUCTURE INVESTMENT AND JOBS ACT

Exhibit A
LEGISLATIVE AUTHORITY FROM THE INFRASTRUCTURE INVESTMENT AND JOBS ACT

§176. Promoting Resilient Operations for Transformative, Efficient, and Cost-saving Transportation (PROTECT) program

(a) Definitions.-In this section:

(1) Emergency event.-The term "emergency event" means a natural disaster or catastrophic failure resulting in-

(A) an emergency declared by the Governor of the State in which the disaster or failure occurred; or

(B) an emergency or disaster declared by the President.

(2) Evacuation route.-The term "evacuation route" means a transportation route or system that-

(A) is owned, operated, or maintained by a Federal, State, Tribal, or local government;

(B) is used-

(i) to transport the public away from emergency events; or

(ii) to transport emergency responders and recovery resources; and

(C) is designated by the eligible entity with jurisdiction over the area in which the route is located for the purposes described in subparagraph (B).

(3) Program.-The term "program" means the program established under subsection (b)(1).

(4) Resilience improvement.-The term "resilience improvement" means the use of materials or structural or nonstructural techniques, including natural infrastructure-

(A) that allow a project-

(i) to better anticipate, prepare for, and adapt to changing conditions and to withstand and respond to disruptions; and

(ii) to be better able to continue to serve the primary function of the project during and after weather events and natural disasters for the expected life of the project; or

(B) that-

(i) reduce the magnitude and duration of impacts of current and future weather events and natural disasters to a project; or

(ii) have the absorptive capacity, adaptive capacity, and recoverability to decrease project vulnerability to current and future weather events or natural disasters.

(b) Establishment.-

(1) In general.-The Secretary shall establish a program, to be known as the "Promoting Resilient Operations for Transformative, Efficient, and Cost-saving Transportation program" or the "PROTECT program".

(2) Purpose.-The purpose of the program is to provide grants for resilience improvements through-

(A) formula funding distributed to States to carry out subsection (c);

(B) competitive planning grants to enable communities to assess vulnerabilities to current and future weather events and natural disasters and changing conditions,

including sea level rise, and plan transportation improvements and emergency response strategies to address those vulnerabilities; and

(C) competitive resilience improvement grants to protect-

(i) surface transportation assets by making the assets more resilient to current and future weather events and natural disasters, such as severe storms, flooding, drought, levee and dam failures, wildfire, rockslides, mudslides, sea level rise, extreme weather, including extreme temperature, and earthquakes;

(ii) communities through resilience improvements and strategies that allow for the continued operation or rapid recovery of surface transportation systems that-

(I) serve critical local, regional, and national needs, including evacuation routes; and

(II) provide access or service to hospitals and other medical or emergency service facilities, major employers, critical manufacturing centers, ports and intermodal facilities, utilities, and Federal facilities;

(iii) coastal infrastructure, such as a tide gate to protect highways, that is at long-term risk to sea level rise; and

(iv) natural infrastructure that protects and enhances surface transportation assets while improving ecosystem conditions, including culverts that ensure adequate flows in rivers and estuarine systems.

(c) Eligible Activities for Apportioned Funding.-

(1) In general.-Except as provided in paragraph (2), funds apportioned to the State under section 104(b)(8) shall be obligated for activities eligible under subparagraph (A), (B), or (C) of subsection (d)(4).

(2) Planning set-aside.-Of the funds apportioned to a State under section 104(b)(8) for each fiscal year, not less than 2 percent shall be for activities described in subsection (d)(3).

(3) Requirements.-

(A) Projects in certain areas.-If a project under this subsection is carried out, in whole or in part, within a base floodplain, the State shall-

(i) identify the base floodplain in which the project is to be located and disclose that information to the Secretary; and

(ii) indicate to the Secretary whether the State plans to implement 1 or more components of the risk mitigation plan under section 322 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act ([42 U.S.C. 5165](#)) with respect to the area.

(B) Eligibilities.-A State shall use funds apportioned to the State under section 104(b)(8) for-

(i) a highway project eligible for assistance under this title;

(ii) a public transportation facility or service eligible for assistance under [chapter 53 of title 49](#); or

(iii) a port facility, including a facility that-

(I) connects a port to other modes of transportation;

(II) improves the efficiency of evacuations and disaster relief; or

(III) aids transportation.

(C) System resilience.-A project carried out by a State with funds apportioned to the State under section 104(b)(8) may include the use of natural infrastructure or the construction or modification of storm surge, flood protection, or aquatic

ecosystem restoration elements that are functionally connected to a transportation improvement, such as-

- (i) increasing marsh health and total area adjacent to a highway right-of-way to promote additional flood storage;
- (ii) upgrades to and installation of culverts designed to withstand 100-year flood events;
- (iii) upgrades to and installation of tide gates to protect highways;
- (iv) upgrades to and installation of flood gates to protect tunnel entrances; and
- (v) improving functionality and resiliency of stormwater controls, including inventory inspections, upgrades to, and preservation of best management practices to protect surface transportation infrastructure.

(D) Federal cost share.-

(i) In general.-Except as provided in subsection (e)(1), the Federal share of the cost of a project carried out using funds apportioned to the State under section 104(b)(8) shall not exceed 80 percent of the total project cost.

(ii) Non-federal share.-A State may use Federal funds other than Federal funds apportioned to the State under section 104(b)(8) to meet the non-Federal cost share requirement for a project under this subsection.

(E) Eligible project costs.-

(i) In general.-Except as provided in clause (ii), eligible project costs for activities carried out by a State with funds apportioned to the State under section 104(b)(8) may include the costs of-

(I) development phase activities, including planning, feasibility analysis, revenue forecasting, environmental review, preliminary engineering and design work, and other preconstruction activities; and

(II) construction, reconstruction, rehabilitation, and acquisition of real property (including land related to the project and improvements to land), environmental mitigation, construction contingencies, acquisition of equipment directly related to improving system performance, and operational improvements.

(ii) Eligible planning costs.-In the case of a planning activity described in subsection (d)(3) that is carried out by a State with funds apportioned to the State under section 104(b)(8), eligible costs may include development phase activities, including planning, feasibility analysis, revenue forecasting, environmental review, preliminary engineering and design work, other preconstruction activities, and other activities consistent with carrying out the purposes of subsection (d)(3).

(F) Limitations.-A State-

(i) may use not more than 40 percent of the amounts apportioned to the State under section 104(b)(8) for the construction of new capacity; and

(ii) may use not more than 10 percent of the amounts apportioned to the State under section 104(b)(8) for activities described in subparagraph (E)(i)(I).

(d) Competitive Awards.-

(1) In general.-In addition to funds apportioned to States under section 104(b)(8) to carry out activities under subsection (c), the Secretary shall provide grants on a competitive basis under this subsection to eligible entities described in paragraph (2).

(2) Eligible entities.-Except as provided in paragraph (4)(C), the Secretary may make a grant under this subsection to any of the following:

- (A) A State or political subdivision of a State.
- (B) A metropolitan planning organization.
- (C) A unit of local government.
- (D) A special purpose district or public authority with a transportation function, including a port authority.
- (E) An Indian tribe (as defined in section 207(m)(1)).
- (F) A Federal land management agency that applies jointly with a State or group of States.
- (G) A multi-State or multijurisdictional group of entities described in subparagraphs (A) through (F).

(3) Planning grants.-Using funds made available under this subsection, the Secretary shall provide planning grants to eligible entities for the purpose of-

- (A) in the case of a State or metropolitan planning organization, developing a resilience improvement plan under subsection (e)(2);
- (B) resilience planning, predesign, design, or the development of data tools to simulate transportation disruption scenarios, including vulnerability assessments;
- (C) technical capacity building by the eligible entity to facilitate the ability of the eligible entity to assess the vulnerabilities of the surface transportation assets and community response strategies of the eligible entity under current conditions and a range of potential future conditions; or
- (D) evacuation planning and preparation.

(4) Resilience grants.-

(A) Resilience improvement grants.-

(i) In general.-Using funds made available under this subsection, the Secretary shall provide resilience improvement grants to eligible entities to carry out 1 or more eligible activities under clause (ii).

(ii) Eligible activities.-

(I) In general.-An eligible entity may use a resilience improvement grant under this subparagraph for 1 or more construction activities to improve the ability of an existing surface transportation asset to withstand 1 or more elements of a weather event or natural disaster, or to increase the resilience of surface transportation infrastructure from the impacts of changing conditions, such as sea level rise, flooding, wildfires, extreme weather events, and other natural disasters.

(II) Inclusions.-An activity eligible to be carried out under this subparagraph includes-

- (aa) resurfacing, restoration, rehabilitation, reconstruction, replacement, improvement, or realignment of an existing surface transportation facility eligible for assistance under this title;
- (bb) the incorporation of natural infrastructure;
- (cc) the upgrade of an existing surface transportation facility to meet or exceed a design standard adopted by the Federal Highway Administration;
- (dd) the installation of mitigation measures that prevent the intrusion of floodwaters into surface transportation systems;
- (ee) strengthening systems that remove rainwater from surface transportation facilities;
- (ff) upgrades to and installation of structural stormwater controls;

- (gg) a resilience project that addresses identified vulnerabilities described in the resilience improvement plan of the eligible entity, if applicable;
- (hh) relocating roadways in a base floodplain to higher ground above projected flood elevation levels, or away from slide prone areas;
- (ii) stabilizing slide areas or slopes;
- (jj) installing riprap;
- (kk) lengthening or raising bridges to increase waterway openings, including to respond to extreme weather;
- (ll) increasing the size or number of drainage structures;
- (mm) installing seismic retrofits on bridges;
- (nn) adding scour protection at bridges;
- (oo) adding scour, stream stability, coastal, and other hydraulic countermeasures, including spur dikes;
- (pp) vegetation management practices in transportation rights-of-way to improve roadway safety, prevent against invasive species, facilitate wildfire control, and provide erosion control; and
- (qq) any other protective features, including natural infrastructure, as determined by the Secretary.

(iii) Priority.-The Secretary shall prioritize a resilience improvement grant to an eligible entity if-

(I) the Secretary determines-

(aa) the benefits of the eligible activity proposed to be carried out by the eligible entity exceed the costs of the activity; and

(bb) there is a need to address the vulnerabilities of surface transportation assets of the eligible entity with a high risk of, and impacts associated with, failure due to the impacts of weather events, natural disasters, or changing conditions, such as sea level rise, wildfires, and increased flood risk; or

(II) the eligible activity proposed to be carried out by the eligible entity is included in the applicable resilience improvement plan under subsection (e)(2).

(B) Community resilience and evacuation route grants.-

(i) In general.-Using funds made available under this subsection, the Secretary shall provide community resilience and evacuation route grants to eligible entities to carry out 1 or more eligible activities under clause (ii).

(ii) Eligible activities.-An eligible entity may use a community resilience and evacuation route grant under this subparagraph for 1 or more projects that strengthen and protect evacuation routes that are essential for providing and supporting evacuations caused by emergency events, including a project that-

(I) is an eligible activity under subparagraph (A)(ii), if that eligible activity will improve an evacuation route;

(II) ensures the ability of the evacuation route to provide safe passage during an evacuation and reduces the risk of damage to evacuation routes as a result of future emergency events, including restoring or replacing existing evacuation routes that are in poor condition or not designed to meet the anticipated demand during an emergency event, and including steps to protect routes from mud, rock, or other debris slides;

(III) if the eligible entity notifies the Secretary that existing evacuation routes are not sufficient to adequately facilitate evacuations, including the transportation of emergency responders and recovery resources, expands the

capacity of evacuation routes to swiftly and safely accommodate evacuations, including installation of-

- (aa) communications and intelligent transportation system equipment and infrastructure;
- (bb) counterflow measures; or
- (cc) shoulders;

(IV) is for the construction of new or redundant evacuation routes, if the eligible entity notifies the Secretary that existing evacuation routes are not sufficient to adequately facilitate evacuations, including the transportation of emergency responders and recovery resources;

(V) is for the acquisition of evacuation route or traffic incident management equipment or signage; or

(VI) will ensure access or service to critical destinations, including hospitals and other medical or emergency service facilities, major employers, critical manufacturing centers, ports and intermodal facilities, utilities, and Federal facilities.

(iii) Priority.-The Secretary shall prioritize community resilience and evacuation route grants under this subparagraph for eligible activities that are cost-effective, as determined by the Secretary, taking into account-

(I) current and future vulnerabilities to an evacuation route due to future occurrence or recurrence of emergency events that are likely to occur in the geographic area in which the evacuation route is located; and

(II) projected changes in development patterns, demographics, and extreme weather events based on the best available evidence and analysis.

(iv) Consultation.-In providing grants for community resilience and evacuation routes under this subparagraph, the Secretary may consult with the Administrator of the Federal Emergency Management Agency, who may provide technical assistance to the Secretary and to eligible entities.

(C) At-risk coastal infrastructure grants.-

(i) Definition of eligible entity.-In this subparagraph, the term "eligible entity" means any of the following:

(I) A State (including the United States Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands) in, or bordering on, the Atlantic, Pacific, or Arctic Ocean, the Gulf of Mexico, Long Island Sound, or 1 or more of the Great Lakes.

(II) A political subdivision of a State described in subclause (I).

(III) A metropolitan planning organization in a State described in subclause (I).

(IV) A unit of local government in a State described in subclause (I).

(V) A special purpose district or public authority with a transportation function, including a port authority, in a State described in subclause (I).

(VI) An Indian tribe in a State described in subclause (I).

(VII) A Federal land management agency that applies jointly with a State or group of States described in subclause (I).

(VIII) A multi-State or multijurisdictional group of entities described in subclauses (I) through (VII).

(ii) Grants.-Using funds made available under this subsection, the Secretary shall provide at-risk coastal infrastructure grants to eligible entities to carry out 1 or more eligible activities under clause (iii).

(iii) Eligible activities.-An eligible entity may use an at-risk coastal infrastructure grant under this subparagraph for strengthening, stabilizing, hardening, elevating, relocating, or otherwise enhancing the resilience of highway and non-rail infrastructure, including bridges, roads, pedestrian walkways, and bicycle lanes, and associated infrastructure, such as culverts and tide gates to protect highways, that are subject to, or face increased long-term future risks of, a weather event, a natural disaster, or changing conditions, including coastal flooding, coastal erosion, wave action, storm surge, or sea level rise, in order to improve transportation and public safety and to reduce costs by avoiding larger future maintenance or rebuilding costs.

(iv) Criteria.-The Secretary shall provide at-risk coastal infrastructure grants under this subparagraph for a project-

(I) that addresses the risks from a current or future weather event or natural disaster, including coastal flooding, coastal erosion, wave action, storm surge, or sea level change; and

(II) that reduces long-term infrastructure costs by avoiding larger future maintenance or rebuilding costs.

(v) Coastal benefits.-In addition to the criteria under clause (iv), for the purpose of providing at-risk coastal infrastructure grants under this subparagraph, the Secretary shall evaluate the extent to which a project will provide-

(I) access to coastal homes, businesses, communities, and other critical infrastructure, including access by first responders and other emergency personnel; or

(II) access to a designated evacuation route.

(5) Grant requirements.-

(A) Solicitations for grants.-In providing grants under this subsection, the Secretary shall conduct a transparent and competitive national solicitation process to select eligible projects to receive grants under paragraph (3) and subparagraphs (A), (B), and (C) of paragraph (4).

(B) Applications.-

(i) In general.-To be eligible to receive a grant under paragraph (3) or subparagraph (A), (B), or (C) of paragraph (4), an eligible entity shall submit to the Secretary an application in such form, at such time, and containing such information as the Secretary determines to be necessary.

(ii) Projects in certain areas.-If a project is proposed to be carried out by the eligible entity, in whole or in part, within a base floodplain, the eligible entity shall-

(I) as part of the application, identify the floodplain in which the project is to be located and disclose that information to the Secretary; and

(II) indicate in the application whether, if selected, the eligible entity will implement 1 or more components of the risk mitigation plan under section 322 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act ([42 U.S.C. 5165](#)) with respect to the area.

(C) Eligibilities.-The Secretary may make a grant under paragraph (3) or subparagraph (A), (B), or (C) of paragraph (4) only for-

(i) a highway project eligible for assistance under this title;

- (ii) a public transportation facility or service eligible for assistance under [chapter 53 of title 49](#);
- (iii) a facility or service for intercity rail passenger transportation (as defined in [section 24102 of title 49](#)); or
- (iv) a port facility, including a facility that-
 - (I) connects a port to other modes of transportation;
 - (II) improves the efficiency of evacuations and disaster relief; or
 - (III) aids transportation.

(D) System resilience.-A project for which a grant is provided under paragraph (3) or subparagraph (A), (B), or (C) of paragraph (4) may include the use of natural infrastructure or the construction or modification of storm surge, flood protection, or aquatic ecosystem restoration elements that the Secretary determines are functionally connected to a transportation improvement, such as-

- (i) increasing marsh health and total area adjacent to a highway right-of-way to promote additional flood storage;
- (ii) upgrades to and installing of culverts designed to withstand 100-year flood events;
- (iii) upgrades to and installation of tide gates to protect highways; and
- (iv) upgrades to and installation of flood gates to protect tunnel entrances.

(E) Federal cost share.-

(i) Planning grant.-The Federal share of the cost of a planning activity carried out using a planning grant under paragraph (3) shall be 100 percent.

(ii) Resilience grants.-

(I) In general.-Except as provided in subclause (II) and subsection (e)(1), the Federal share of the cost of a project carried out using a grant under subparagraph (A), (B), or (C) of paragraph (4) shall not exceed 80 percent of the total project cost.

(II) Tribal projects.-On the determination of the Secretary, the Federal share of the cost of a project carried out using a grant under subparagraph (A), (B), or (C) of paragraph (4) by an Indian tribe (as defined in section 207(m)(1)) may be up to 100 percent.

(iii) Non-federal share.-The eligible entity may use Federal funds other than Federal funds provided under this subsection to meet the non-Federal cost share requirement for a project carried out with a grant under this subsection.

(F) Eligible project costs.-

(i) Resilience grant projects.-Eligible project costs for activities funded with a grant under subparagraph (A), (B), or (C) of paragraph (4) may include the costs of-

(I) development phase activities, including planning, feasibility analysis, revenue forecasting, environmental review, preliminary engineering and design work, and other preconstruction activities; and

(II) construction, reconstruction, rehabilitation, and acquisition of real property (including land related to the project and improvements to land), environmental mitigation, construction contingencies, acquisition of equipment directly related to improving system performance, and operational improvements.

(ii) Planning grants.-Eligible project costs for activities funded with a grant under paragraph (3) may include the costs of development phase activities, including planning, feasibility analysis, revenue forecasting, environmental review, preliminary engineering and design work, other preconstruction activities, and other activities consistent with carrying out the purposes of that paragraph.

(G) Limitations.-

(i) In general.-An eligible entity that receives a grant under subparagraph (A), (B), or (C) of paragraph (4)-

(I) may use not more than 40 percent of the amount of the grant for the construction of new capacity; and

(II) may use not more than 10 percent of the amount of the grant for activities described in subparagraph (F)(i)(I).

(ii) Limit on certain activities.-For each fiscal year, not more than 25 percent of the total amount provided under this subsection may be used for projects described in subparagraph (C)(iii).

(H) Distribution of grants.-

(i) In general.-Subject to the availability of funds, an eligible entity may request and the Secretary may distribute funds for a grant under this subsection on a multiyear basis, as the Secretary determines to be necessary.

(ii) Rural set-aside.-Of the amounts made available to carry out this subsection for each fiscal year, the Secretary shall use not less than 25 percent for grants for projects located in areas that are outside an urbanized area with a population of over 200,000.

(iii) Tribal set-aside.-Of the amounts made available to carry out this subsection for each fiscal year, the Secretary shall use not less than 2 percent for grants to Indian tribes (as defined in section 207(m)(1)).

(iv) Reallocation.-For any fiscal year, if the Secretary determines that the amount described in clause (ii) or (iii) will not be fully utilized for the grant described in that clause, the Secretary may reallocate the unutilized funds to provide grants to other eligible entities under this subsection.

(6) Consultation.-In carrying out this subsection, the Secretary shall-

(A) consult with the Assistant Secretary of the Army for Civil Works, the Administrator of the Environmental Protection Agency, the Secretary of the Interior, and the Secretary of Commerce; and

(B) solicit technical support from the Administrator of the Federal Emergency Management Agency.

(7) Grant administration.-The Secretary may-

(A) retain not more than a total of 5 percent of the funds made available to carry out this subsection and to review applications for grants under this subsection; and

(B) transfer portions of the funds retained under subparagraph (A) to the relevant Administrators to fund the award and oversight of grants provided under this subsection.

(e) Resilience Improvement Plan and Lower Non-Federal Share.-

(1) Federal share reductions.-

(A) In general.-A State that receives funds apportioned to the State under section 104(b)(8) or an eligible entity that receives a grant under subsection (d) shall have the non-Federal share of a project carried out with the funds or grant, as applicable, reduced by an amount described in subparagraph (B) if the State or eligible entity meets the applicable requirements under that subparagraph.

(B) Amount of reductions.-

(i) Resilience improvement plan.-Subject to clause (iii), the amount of the non-Federal share of the costs of a project carried out with funds apportioned to a State under section 104(b)(8) or a grant under subsection (d) shall be reduced by 7 percentage points if-

(I) in the case of a State or an eligible entity that is a State or a metropolitan planning organization, the State or eligible entity has-

(aa) developed a resilience improvement plan in accordance with this subsection; and

(bb) prioritized the project on that resilience improvement plan; and

(II) in the case of an eligible entity not described in subclause (I), the eligible entity is located in a State or an area served by a metropolitan planning organization that has-

(aa) developed a resilience improvement plan in accordance with this subsection; and

(bb) prioritized the project on that resilience improvement plan.

(ii) Incorporation of resilience improvement plan in other planning.-Subject to clause (iii), the amount of the non-Federal share of the cost of a project carried out with funds under subsection (c) or a grant under subsection (d) shall be reduced by 3 percentage points if-

(I) in the case of a State or an eligible entity that is a State or a metropolitan planning organization, the resilience improvement plan developed in accordance with this subsection has been incorporated into the metropolitan transportation plan under section 134 or the long-range statewide transportation plan under section 135, as applicable; and

(II) in the case of an eligible entity not described in subclause (I), the eligible entity is located in a State or an area served by a metropolitan planning organization that incorporated a resilience improvement plan into the metropolitan transportation plan under section 134 or the long-range statewide transportation plan under section 135, as applicable.

(iii) Limitations.-

(I) Maximum reduction.-A State or eligible entity may not receive a reduction under this paragraph of more than 10 percentage points for any single project carried out with funds under subsection (c) or a grant under subsection (d).

(II) No negative non-federal share.-A reduction under this paragraph shall not reduce the non-Federal share of the costs of a project carried out with funds under subsection (c) or a grant under subsection (d) to an amount that is less than zero.

(2) Plan contents.-A resilience improvement plan referred to in paragraph (1)-

(A) shall be for the immediate and long-range planning activities and investments of the State or metropolitan planning organization with respect to resilience of the

surface transportation system within the boundaries of the State or metropolitan planning organization, as applicable;

(B) shall demonstrate a systemic approach to surface transportation system resilience and be consistent with and complementary of the State and local mitigation plans required under section 322 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act ([42 U.S.C. 5165](#));

(C) shall include a risk-based assessment of vulnerabilities of transportation assets and systems to current and future weather events and natural disasters, such as severe storms, flooding, drought, levee and dam failures, wildfire, rockslides, mudslides, sea level rise, extreme weather, including extreme temperatures, and earthquakes;

(D) may-

(i) designate evacuation routes and strategies, including multimodal facilities, designated with consideration for individuals without access to personal vehicles;

(ii) plan for response to anticipated emergencies, including plans for the mobility of-

(I) emergency response personnel and equipment; and

(II) access to emergency services, including for vulnerable or disadvantaged populations;

(iii) describe the resilience improvement policies, including strategies, land-use and zoning changes, investments in natural infrastructure, or performance measures that will inform the transportation investment decisions of the State or metropolitan planning organization with the goal of increasing resilience;

(iv) include an investment plan that-

(I) includes a list of priority projects; and

(II) describes how funds apportioned to the State under section 104(b)(8) or provided by a grant under the program would be invested and matched, which shall not be subject to fiscal constraint requirements; and

(v) use science and data and indicate the source of data and methodologies; and

(E) shall, as appropriate-

(i) include a description of how the plan will improve the ability of the State or metropolitan planning organization-

(I) to respond promptly to the impacts of weather events and natural disasters; and

(II) to be prepared for changing conditions, such as sea level rise and increased flood risk;

(ii) describe the codes, standards, and regulatory framework, if any, adopted and enforced to ensure resilience improvements within the impacted area of proposed projects included in the resilience improvement plan;

(iii) consider the benefits of combining hard surface transportation assets, and natural infrastructure, through coordinated efforts by the Federal Government and the States;

(iv) assess the resilience of other community assets, including buildings and housing, emergency management assets, and energy, water, and communication infrastructure;

(v) use a long-term planning period; and

(vi) include such other information as the State or metropolitan planning organization considers appropriate.

(3) No new planning requirements.-Nothing in this section requires a metropolitan planning organization or a State to develop a resilience improvement plan or to include a resilience improvement plan under the metropolitan transportation plan under section 134 or the long-range statewide transportation plan under section 135, as applicable, of the metropolitan planning organization or State.

(f) Monitoring.-

(1) In general.-Not later than 18 months after the date of enactment of this section, the Secretary shall-

(A) establish, for the purpose of evaluating the effectiveness and impacts of projects carried out with a grant under subsection (d)-

(i) subject to paragraph (2), transportation and any other metrics as the Secretary determines to be necessary; and

(ii) procedures for monitoring and evaluating projects based on those metrics; and

(B) select a representative sample of projects to evaluate based on the metrics and procedures established under subparagraph (A).

(2) Notice.-Before adopting any metrics described in paragraph (1), the Secretary shall-

(A) publish the proposed metrics in the Federal Register; and

(B) provide to the public an opportunity for comment on the proposed metrics.

(g) Reports.-

(1) Reports from eligible entities.-Not later than 1 year after the date on which a project carried out with a grant under subsection (d) is completed, the eligible entity that carried out the project shall submit to the Secretary a report on the results of the project and the use of the funds awarded.

(2) Reports to congress.-

(A) Annual reports.-The Secretary shall submit to the Committee on Environment and Public Works of the Senate and the Committee on Transportation and Infrastructure of the House of Representatives, and publish on the website of the Department of Transportation, an annual report that describes the implementation of the program during the preceding calendar year, including-

(i) each project for which a grant was provided under subsection (d);

(ii) information relating to project applications received;

(iii) the manner in which the consultation requirements were implemented under subsection (d);

(iv) recommendations to improve the administration of subsection (d), including whether assistance from additional or fewer agencies to carry out the program is appropriate;

(v) the period required to disburse grant funds to eligible entities based on applicable Federal coordination requirements; and

(vi) a list of facilities that repeatedly require repair or reconstruction due to emergency events.

(B) Final report.-Not later than 5 years after the date of enactment of the Surface Transportation Reauthorization Act of 2021, the Secretary shall submit to Congress a report that includes the results of the reports submitted under subparagraph (A).

(h) Treatment of Projects.-Notwithstanding any other provision of law, a project assisted under this section shall be treated as a project on a Federal-aid highway under this chapter.

(Added [Pub. L. 117–58, div. A, title I, §11405\(a\), Nov. 15, 2021, 135 Stat. 561 .](#))