

MT. BAKER HIGHWAY SCENIC BYWAY MANAGEMENT PLAN

CAPITAL PROJECT DEVELOPMENT PLAN

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Capital project development plan

Capital projects provide long-range benefits along the corridor, and are developed over time to facilitate partnerships and input. These include any work that enhances the existing roadway and any new development needed to preserve the intrinsic qualities of the corridor. These projects fall outside of the realm of normal maintenance work and require dedicated funding before they can begin. It is important to distinguish this type of work because it is beyond the scope of regular maintenance activities, and undergoes different coordination and site-specific scrutiny before development.

Safety, preservation and environmental retrofit projects are considered capital projects. These projects require a more interactive coordination process and will have specific funds for the work specified. The expectation for these projects is that they will undergo a predesign review process with the USFS and WSDOT to make sure that the work meets the needs of the corridor. Below we will identify the procedures and discuss decision points relevant to both agencies' review of capital projects and funding sources required prior to moving a project forward.

WSDOT's project development process is described in the table below. The easement calls for WSDOT and USFS to develop a joint process for facilitating interagency review during predesign, design and construction. The table below explains phases of the project so early and continuous coordination can take place to get the best information from both agencies.

Capital project development review process	
Project Phase	Process
Transportation planning	Both agencies contribute to needs assessment based on Forest Plan and safety and design criteria.
Project scoping and programming	When a project has been identified along the corridor, both agencies participate in dialogue to streamline the environmental review process and pursue funding opportunities.
Design and environmental review	<ul style="list-style-type: none"> • WSDOT leads design process with input from USFS. • Funding needs to be determined at this point for any aesthetic treatments proposed. • Easement specifies pre-design review process by USFS
Environmental permitting and PS&E	<ul style="list-style-type: none"> • WSDOT undertakes NEPA, Section 106, and Integrated Vegetative Management Planning. • WSDOT determines how to proceed with ESA consultation including potential to contract with USFS. • Easement requires USFS approval prior to construction.
Construction	WSDOT leads bid process and construction. Follows BMP during construction.



Pre-design review protocol:

The following summarizes the process specified in the easement agreement:

- WSDOT will coordinate with USFS at project inception for projects using or affecting National Forest lands or interests.
- USFS will consult with WSDOT on projects that may affect SR 542.
- WSDOT and USFS will coordinate designs and participate in field reviews for all construction projects.
- WSDOT and USFS will agree on needed environmental documents and determine lead agency responsibility for all projects.
- WSDOT will have the primary responsibility for highway-related projects.
- WSDOT and USFS will cooperate to develop a single set of environmental documents for each project and jointly seek public involvement when necessary.
- Draft and final environmental documents will be circulated to each agency for review before distribution for public comment.
- USFS will publish a decision notice of its intent to issue a letter of consent for easement. WSDOT and USFS will agree which requirements will be provided in the plans and specifications, and which will be in the stipulations (special provisions).
- Written stipulations will be kept to a minimum.
- WSDOT and USFS will address ways to prevent the spread of invasive plants, and the design and construction plans of proposed projects will incorporate standards that prevent the spread of noxious weeds.
- The forest supervisor will have an opportunity to review plans relative to effects, if any, that the project will have upon adequate protection and utilization of the land traversed by the easement and adjoining land under the administration of the USFS. This may require surveys if outside the current alignment in order to determine adequate protection and utilization.
- The forest supervisor will review and comment back to WSDOT within 30 days of receiving the plans.
- Those features of design, construction and maintenance of the highway facility and the use of the easement that would have an effect on the protection and utilization of the forest are to be mutually agreed upon by the Forest Supervisor and WSDOT during the preparation of the plans and specification for each construction project. The plans shall be revised, modified or supplemented to meet the approval of the forest supervisor, or when deemed appropriate supplemented by written stipulation between the forest supervisor and WSDOT prior to the start of construction.
- Final design and construction specification for any highway construction project on the easement will be presented to the forest supervisor for approval; construction shall not begin until such approval is given, provided that if it is supplemented, any amendment or supplement which affects alignment or subgrade shall be approved by the forest supervisor and the WSDOT before being placed in effect.

Compliance Components: All projects will undertake the following:



- 1. Information:** Ensures the USFS staff is aware of a proposed project or plan and they understand the purpose and need for the work and have an opportunity to comment.
- 2. Procedural:** A written record is made of how and when a project originated, when it was reviewed, who is responsible, and whether alternative solutions were considered.
- 3. Legal:** The process enables the USFS to demonstrate that projects meet legal requirements under federal laws, applicable executive orders, state statutes, and USFS policies and regulations.

Compliance Processes: Projects will be reviewed by USFS staff using the current project review procedures:

1. When a major project is proposed, beyond the scope of maintenance as described in Article III Supporting Documents 2 Maintenance Responsibilities, WSDOT staff will contact the USFS verbally and/or in writing and explain the project details and procedures. USFS program coordinators will review the project. WSDOT staff will be notified as soon as possible after the necessary compliance is completed as to whether and when work may begin.
2. When emergencies occur, i.e. rockslides, imminent danger due to hazard trees, washout, surface or structural failures that pose threats to travelers, all work crews may respond without project reviews to clear or stabilize the hazard and to make passage safe and will notify the USFS as soon as possible. If extended repairs are necessary beyond emergency repairs, WSDOT supervisors are to notify the USFS before additional repairs are made.

Major Construction Projects: Before major construction projects commence, plans shall receive full compliance.

Material staging areas will be designated prior to construction, and WSDOT and USFS shall work jointly in the design and placement of screening materials to hide staged vegetation, soils, and other materials from the traffic's view.

Capital project construction objectives

Safety: The USFS and WSDOT shall make good faith efforts to be consistent with up-to-date safety programs that enforce the latest OSHA, MUTCD and WISHA rules and regulations. The USFS and WSDOT shall furnish each employee working on the project a place of employment free from recognized hazards likely to cause serious injury or death. The USFS and WSDOT shall require safety devices, furnish safeguards, and shall adopt and use practices, methods, operations and processes which are reasonably adequate to render such employment and place of employment safe. The USFS and WSDOT shall do everything reasonably necessary to protect the life and safety of employees.

Protect cultural resources: The Forest Supervisor and WSDOT shall make determination as to the necessity for archaeological and paleontological reconnaissance and salvage within the right of way. Any such action determined necessary because of reconstruction of the highway facility is to be undertaken by WSDOT in compliance with



the acts entitled An Act for the Preservation of American Antiquities, approved June 8, 1906 (34 Stat.225, 16 U.S.C. 432-433), the Archaeological Resources Protection Act of 1979 (93 Stat. 721, 16 U.S.C. 470aa-47011), and State laws where applicable.

Minimize impacts to air, land, and water: WSDOT designs stormwater facilities; implements erosion control measures and manages waste; works with regulators to develop stormwater permits and innovative alternative stormwater control options; secures water quality certification; reduces air emissions and highway noise; and identifies energy efficiency improvements.

Protect biological resources: WSDOT biologists, and other environmental staff and/or their consultants will evaluate and provide guidance on wetland, fish and wildlife and rare plants, watershed, and ESA compliance regarding stormwater management; correct chronic environmental deficiencies and fish blockages; improve wetland site management and measurements; develop effective approaches to habitat connectivity in transportation planning and project development; and provide innovative mitigation opportunities for specific projects.

Improve and streamline environmental documentation: Effective coordination helps reduce time to complete high-quality environmental assessments and environmental impact statements. We strive to work with other agency professionals to develop comprehensive environmental management tools that help us negotiate useful programmatic permits; we also strive to work with other professionals across the country to develop and implement new procedures and better practices that streamline the permitting process, and provide predictable results and expectations for project delivery.

Regulatory coordination and compliance: We maintain a robust and effective liaison program with regulatory agencies. We work collaboratively with federal, state, local and tribal interests to develop practical methods of achieving the highest standard of environmental compliance. These relationships and interactions help us all maintain a highly qualified group of professionals dedicated to environmental management. This coordination keeps project managers informed and helps WSDOT be responsive to input, and keep projects on task and on schedule.

These objectives are utilized when developing projects and scoping project delivery. The projects we are undertaking on SR 542 are mainly concerned with the preservation of the system. The process specified above makes sure to include all agencies and make decision points understandable so that the process can proceed in a streamlined fashion.



SR 542 capital project development: goals and strategies:

Safety and mobility is the goal along this corridor. Projects need to be planned to protect and enhance the roadway. This facility has been designed and utilized for more than 50 years, and ongoing capital projects will be necessary to safeguard its viability. Use along this corridor will continue to increase, so necessary maintenance and aesthetic attributes of the corridor need to be preserved and enhanced through long-range planning. It is assumed that future projects will be required to secure the safety of the roadway and will be coordinated as described in protocols identified in USFS, and WSDOT agreements. They will always be developed in a manner that adheres to regulations and policies developed to minimize impacts and adhere to designs that augment the rustic Cascadian feel of the corridor.

Goal: Secure safety along the corridor in a cost-effective way and provide longevity to the system. Provide a visually appealing solution that meets with WSDOT and aesthetic design parameters.

Strategies: Include aesthetic design solutions in the original funding package. Find funding partners to secure resources that will enhance safety and provide visually appealing accommodations to needed capital enhancements if needed.

Design standards and criteria

Each project shall have a project-specific written design criteria document. The design team will review existing design, construction, maintenance and operations standards; and, as necessary, will recommend additions or changes to WSDOT for incorporation into the design criteria. Any exceptions or deviations to the standard design criteria shall be documented and approved in writing. The project-specific design criteria shall reference all applicable WSDOT manuals and FHWA criteria.

Federal design standards

Title 23 USC 109 provides that design standards for projects on the National Highway System (NHS) must be approved by the Secretary of the U.S. Department of Transportation in cooperation with the state highway departments. The Secretary has delegated this authority to the Federal Highway Administrator. Accordingly, the FHWA project representative will review and approve design standards or forward to the appropriate FHWA Division or FHWA Headquarters for approval. The design standards for this Project will be as contained in the Design Manual WSDOT M22-01 as approved by the FHWA Division Office.

Context Sensitive Design

Context sensitive design shall be incorporated in all federally funded Major projects in accordance with the requirements of Flexibility in Highway Design, FHWA-PD-97-062.

All context sensitive design shall be in accordance with the WSDOT Context Sensitive Solutions Secretary's Executive Order number E1028.01.



Design review process

The WSDOT design team will prepare engineering submittal documents and review them for compliance with contractual requirements in accordance with the WSDOT Design Manual, Plans Preparation Manual, and Bridge Design Manual. Design output documents shall be sealed by a registered engineer or architect as required by the laws of the State of Washington.

Throughout the project, the design team will oversee and monitor all design activities, including the coordination required with various governmental and environmental agencies. Periodic design reviews will be conducted by WSDOT to evaluate and compare design progress against project scope, design intent, quality objectives and schedule. The design review process requires formal reviews that result in written review comments, written comment responses, comment resolution meetings and written final disposition of comments. This process is required to ensure that review comments will be recorded and the appropriate management evaluation and actions are initiated in a timely and coordinated manner.

WSDOT will track all design review comments to satisfactory resolution. Comments from participating third-parties, municipalities and other agencies will also be received by WSDOT and forwarded to the Design Team for response. Each review, after completion, will be maintained as a part of the record of the Project.

Aesthetics

New projects will require design review to incorporate aspects of the rustic Cascadian design whenever feasible. This is explained in more detail in the section of this plan dedicated to the Identification of Natural and Scenic Values. Aesthetics will be reviewed during the development of capital projects and the costs included in the project proposal. The cost of these improvements could be considered for partnership funding to support costs needed beyond functional design required for highway improvements if needed.

Project endorsement

Executive leadership endorsement should occur at the initial and all subsequent updates of the project management plan. It is suggested that the executive leadership of the WSDOT, the FHWA, and USFS as well as other agencies sponsoring the project endorse the project management plan via a briefing and a signature page. Executive leadership endorsement will further the commitment of achieving the project objectives and will officially initiate the procedures and requirements as set forth in the project management plan. It should be noted on the signature page that the effectiveness of the project management plan will be continuously evaluated, and that revisions will be issued as the project progresses in order to generate the most effectively managed project meeting the project objectives.

Project review and reporting

Project status, schedule conflicts, changes and delays will be monitored and reported on a regular basis. Schedule reports will be prepared and distributed to the project team and other involved parties regularly. The reports will provide a



consistent basis for evaluating progress and will allow managers to focus on exceptional events or negative trends.

As the need arises, the project control team will produce special studies and analyses of particular situations. The format and distribution of such reports will be tailored to the specific needs of the situation.

Responsibilities

WSDOT is responsible for publishing a monthly progress report that will be used to coordinate with the USFS staff. WSDOT will review these summaries and provide estimates of progress and impacts to project delivery. WSDOT staff will make arrangements with USFS to keep them apprised of the progress as it relates to the scope of work and overall work plan.

Guidelines

The following guidelines are used as a framework for project performance reviews.

Project performance reviews are performed on a set schedule:

- Monthly by project and program
- Weekly or biweekly for projects with special concerns or existing significant problems

Project performance reviews determine where action is needed and assist with accurately recording costs and performance. If encountering significant budgetary, scope, resource or management problems, the project manager should be prepared to discuss alternatives and strategies for optimizing performance and reducing liability and risk.

During the project performance reviews, the project director is informed of budget overruns, pending out-of-scope work and funding issues. At monthly and quarterly progress meetings, appropriate information about progress and current issues is communicated to higher levels to avoid surprises and provide early warning.

Environmental review

Environmental interests are part of every aspect of WSDOT's work, from planning and design through construction and into operation and maintenance of the highway. WSDOT's environmental commitment is to operate an effective and efficient transportation system in an ecologically sound and cost-effective way. We proceed with project development in accordance with the dictates of sound environmental protection practices. We avoid, minimize and appropriately mitigate adverse environmental impacts as established by applicable laws and regulations. To support Washington's transportation system and project delivery needs, we work with a skilled team of policy and scientific experts who foster environmental stewardship. This team's role is to coordinate with the USFS to facilitate collective input that will facilitate project development and streamline the permitting process.



Our investigation into the process for environmental review has found that there is an existing MOU between USFS and WSDOT (2002) that documents steps to coordinate transportation activities. Where appropriate, these will also be referred to and utilized to clarify the processes set out in this plan. Since these may change over time, updates to these documents are hereby incorporated by reference.

MOU NFS 00--11060000-040 (2002) stipulates the following for transportation planning: "WSDOT and USFS will agree on needed environmental documents and lead agency responsibility project by project. WSDOT will have the primary responsibility for highway related projects." The easement established for SR 542, held by FHWA, is expected to accommodate most work envisioned by WSDOT. In the event that WSDOT proposes a project that extends beyond the boundaries of the existing SR542 easement, WSDOT and USFS will meet to agree on needed environmental documents and lead agency responsibility.

Interagency review of highway projects takes place in a very complex administrative arena defined by many federal, state and local laws, ordinances and regulations.¹ This has resulted in overlapping jurisdictional responsibilities and some duplication of efforts that cause increased costs and time delays for transportation projects.

WSDOT and USFS both have an interest in the stewardship of SR 542 and surrounding environment, and therefore must work together on the development, review and construction of transportation improvements. When this works well, the two agencies capitalize on their respective areas of expertise to complete projects that preserve transportation safety and mobility while minimizing negative impacts on the surrounding environment.

The challenge for this interagency partnership is to clarify roles and responsibilities to avoid unnecessary delays and duplication of effort. We recommend the following base case because it appears to work well on most projects. It will provide a starting point for discussion between WSDOT and USFS at the start of individual capital projects.

Environmental monitoring

The final environmental document defines the environmental impacts and required mitigation for capital projects. In addition, other environmental permits will be obtained during the design of the project that will specify additional requirements to be adhered to during construction.

The general requirements will be included in this documentation so we can ensure that all environmental commitments are included in the design and construction of the project. It will describe the proactive approach that will be

¹ *Nothing in this document is intended to conflict with current directives of any of these agencies. If the terms of this plan are found to be inconsistent with current directives, then those portions of this agreement that are determined to be inconsistent shall be invalid, but the remaining terms and conditions not affected by the inconsistency shall remain in full force and effect. At the first opportunity for review of the plan, all necessary changes will be accomplished by either an amendment to this plan or by entering into a new plan, whichever is deemed expedient to the interest of all parties.*



used for overseeing and inspecting environmental work during construction to help guard against cost overruns and schedule delays.

In addition, many records of decision require environmental compliance after a facility is open to traffic on an ongoing basis (e.g. storm water management or wetlands performance). It is suggested that, for capital projects with a substantial amount of sensitive environmental issues, environmental monitoring procedures include some or all of the following:

- An overall environmental monitoring plan.
- Roles and responsibilities of the environmental monitoring staff.
- Any strategic stationing or positioning of staff members to maintain constant contact with resource agencies and a working knowledge of the project's environmental issues to ensure that all FEIS and permit commitments are followed through.
- Any planned proactive coordination with the resource agencies during the project design and construction, in order to ensure early and constant communications of issues and requirements.
- Any fluctuating work schedules among the environmental monitoring staff members to ensure constant coverage of key contractor schedules and activities that may affect the environment.
- Coordination of environmental monitoring staff members' daily activities with the project management and construction management teams, in order to monitor and observe critical contractor activities.
- Record-keeping and reporting procedures.
- Noncompliance and violations procedures.
- Permit modification procedures related to construction activities, including strategies for guarding against cost overruns and schedule delays while still acting as a good steward to the environment.
- Post-construction environmental performance for wetlands, storm water, vegetation, wildlife crossings, endangered species, etc.

Capital projects that require quick action

Planned capital projects are expected to be programmed along the corridor based on anticipated need. Sometimes projects are necessary due to an event or unforeseen structural issue that develops. It is imperative that we respond to these in a timely manner. Below is a description of two such types of projects that require expedited review.

Urgent Projects

During the normal review of the roadway, sometimes potential roadway failures are observed. The road may still be passable but stabilization might be needed. These projects still require environmental review and design work. The desire is to formulate a productive process that allows for streamlined review and timely construction. These projects are not yet declared an emergency, but will elevate to such if not undertaken immediately. These projects will be coordinated with the Forest Service upon discovery.



Emergency Projects

When emergencies occur, i.e. rockslides, imminent danger due to hazard trees, washout, surface or structural failures that pose threats to travelers, all work crews may respond without project reviews to clear the hazard and to make safe passage.

The following has been the policy followed:

Damage to roadway structure:

1. Pavement damaged by erosion, cracking, potholes or settling shall be repaired as soon as possible, consistent with budget, time and available personnel.
2. Clean drainage structures or clear vegetation causing road surface failure as soon as possible consistent with budget, time, and available personnel.
3. Repair unstable fill slopes caused by poor drainage saturation of the soil, slopes greater than 2:1, and the lack of native vegetation by rock scaling, mechanical removal of loose fill materials and regularly cleaning drainage structures.

It is critical to continue with this procedure. If extended repairs are necessary beyond emergency repairs, WSDOT supervisors will notify the USFS before additional repairs are made. This has been the standard practice to date, and has worked well for both agencies.

SR 542 emergency/urgent projects. Goals and strategies: Emergencies necessitate immediate action to secure the safety of the roadway. We plan to undertake these actions in a way that meets the safety needs of the public and opens the roadway as quickly as safely possible. The coordination of these actions will vary based on urgency, but will be coordinated when feasible and as described in protocols identified in USFS and WSDOT agreements. They will always be developed in a manner that adheres to regulations and policies developed to minimize impacts.

Goal: To quickly restore the roadway in a cost-effective way so it can safely accommodate travelers and minimize damage. Empower WSDOT maintenance to immediately address safety issues along the corridor to best secure the roadway, but at the same time maintain and not alter the unique setting. This could require after-the-fact actions to restore areas to predisaster conditions. When damage repairs go beyond that of normal maintenance, additional funding needs will be included in the project proposal including actions required to meet aesthetic design criteria. Partnership funding will be used to the fullest extent to augment repairs and support aesthetic needs.

Strategies: Emergencies require immediate action to secure the roadway. Reasonable actions necessary to secure the roadway need to get under way as soon as possible, and need to follow accepted protocols and regulations put in place to safeguard the environment and surrounding vegetation. Sometimes alterations require extraordinary reconstruction. We will need to partner to secure funds that will enhance safety and minimize solutions that visually alter surrounding roadway.



Projects funded outside of general maintenance funds

Maintenance funds cannot be used for projects that go beyond restoring a facility to its functional form. Additions or improvements, no matter how reasonable, that exceed these limits require outside funding. Below are projects along the corridor that have obtained capital funding for development and could provide opportunities for future project development if similar conditions are met.

Roadside safety improvement projects

The State Legislature provided funding to target safety improvements on SR 542 where the history of collision occurrence is above average. These projects were funded and were completed in 2008. Crews will install guardrail, remove fixed objects and improve roadsides to reduce collisions and improve safety. A total of \$1.3 million has been allocated to improve safety on both SR 542 and SR 547.

2008 SR 542 Safety Projects

- MP 37.55-37.63 Install guardrail
- MP 40.15-41.14 Additional curve signing and delineation
- MP 40.65-40.68 Tie guardrail together

Chronic Environmental Deficiency projects (CED)

Roadside improvements have been limited by funding and have mainly been centered on maintenance and restoration of the existing roadway. Chronic Environmental Deficiency (CED) funds have recently been made available for projects that will protect the roadway from continued erosion and environmentally invasive emergency remedies. When awarded, these projects greatly reduce weather-related closures and damage but are only available for specified projects. The majority of the roadway does not qualify for this funding, but it still requires constant evaluation and preservation to maintain safe conditions.

CED-funded projects are at locations along the state highway system where recent, frequent, and chronic maintenance repairs to the state transportation system are causing impacts to fish and fish habitat. In 2002, WSDOT established a partnership (Memorandum of Agreement) with the Washington Department of Fish & Wildlife (WDFW) to move away from the repetitive repair of WSDOT roads and instead concentrate on long-term solutions that will optimize the improvements for fish and fish habitat while also addressing transportation needs. WSDOT established the CED program as a strategy to provide for highway improvements to specific locations where repeated maintenance and preservation activities create unacceptable environmental impacts.

CED projects have to meet two qualifiers:

1. Maintenance has been conducted on the site three times in the previous 10 years.
2. The maintenance being conducted has a negative impact on fish habitat.



How CEDs are identified?

Potential CEDs can be nominated by WSDOT, WDFW, tribes or other concerned parties. Nominations will be screened to determine if the sites meet the program's criteria. The initial site assessment consists of the CED coordinator, WSDOT's senior hydrologist, the region maintenance environmental coordinator, and persons familiar with the site verifying eligibility to the CED list and filling out an intake form with initial recommendations. Those projects meeting the criteria are all added to the list of CED sites.

For each site, WSDOT conducts either a reach assessment, reach analysis or corridor analysis that evaluates and identifies the hydrologic mechanisms for failure and develops a conceptual design solution. In 2005, WDFW developed a prioritization methodology which provides a scientifically based priority to the order of CED correction.

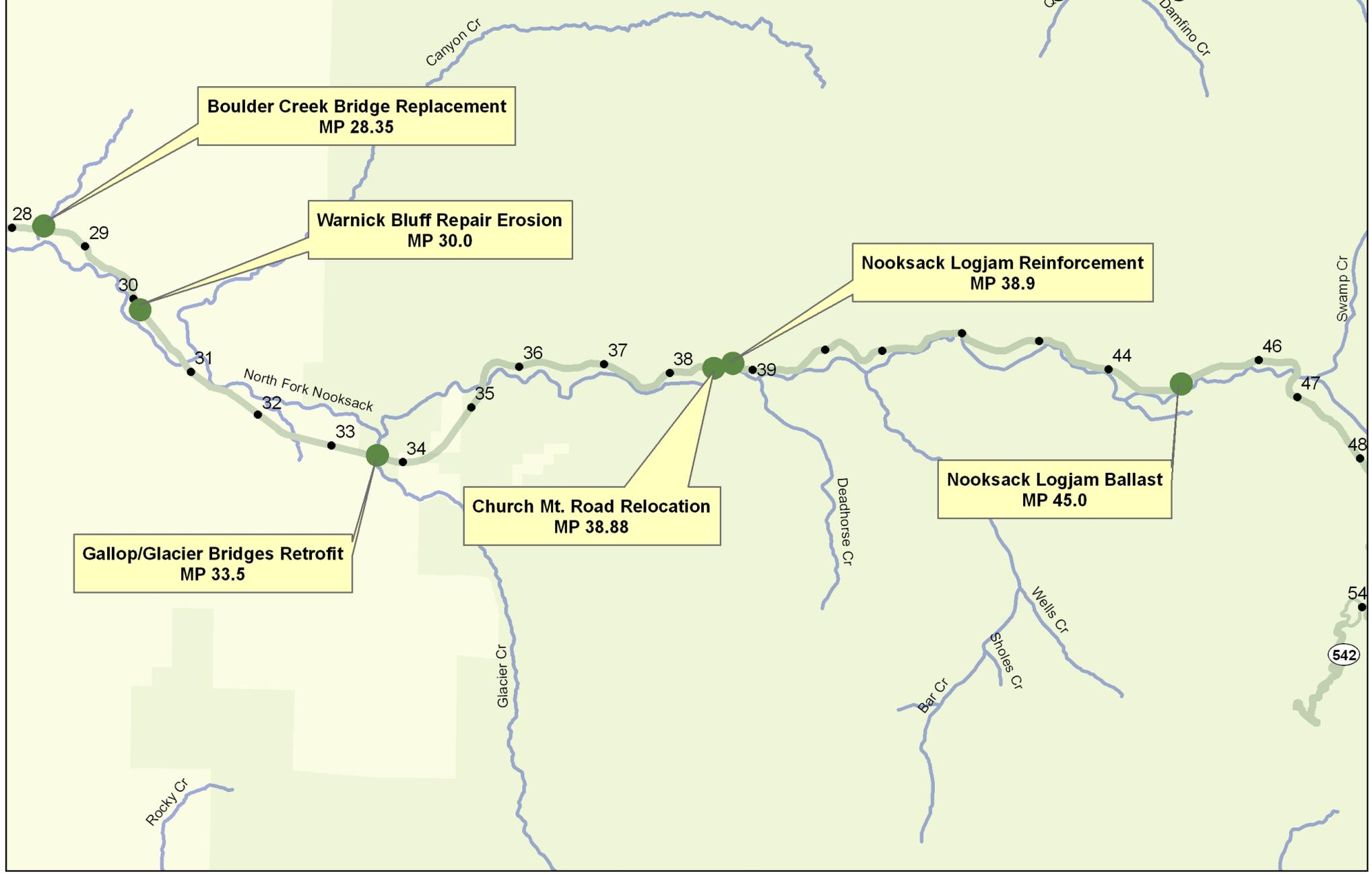
How does WSDOT fund CED projects?

Those projects that qualify as CEDs can be fixed with project funds, emergency funds or bridge funds, and others can get fixed as line-item projects funded by the Legislature under Improvement - Environmental Retrofit.

WSDOT has prioritized projects that will provide long-term relief for chronically eroded areas along this corridor. If a long-term project has not been planned, then the most a maintenance project can do is secure the area from harm, not make it safe for future occurrences. More funding and projects are needed. It has been suggested that joint funding applications be made in the future to help secure needed funding for additional areas along SR 542.

WSDOT maintenance does not have funding to accomplish long-term solutions or provide aesthetic treatments to roadside projects. Their budget is such that even normal maintenance is not fully funded on an annual basis. While costs have continued to increase, their budget has remained the same despite heavy flood, storm and snow years. It is still important that expectations on maintenance not be increased beyond their ability to provide services. It has been discussed that additional goals for aesthetic treatments along the corridor be sought from outside funding sources. Partnerships with the community, Whatcom County, WSDOT, USFS and other local entities will help secure needed funding from other resources.

SR 542 Chronic Environmental Deficiency Projects





Funded CED projects

Along SR 542, the Church Mountain Road relocation and culvert replacement project is funded through the CED program. The dynamic flows of the Nooksack River eroded portions of SR 542 during high flow events. A strategy was developed to provide long-term improvements at this specific location since maintenance and roadway preservation activities have created repetitive and unacceptable environmental impacts.

This project is located between MP 38.72 and MP 39.04, approximately 5.51 miles east of the town of Glacier in the Mt. Baker- Snoqualmie National Forest. This project will relocate the existing roadway away from the Nooksack River in order to prevent further erosion of the existing roadway prism. Construction work associated with this project includes a horizontal and vertical realignment of approximately 1,600 feet of highway, installation of a fish passable structure at Chain-up creek, minor drainage improvements and minor safety items. The goal of this project is to:

- Preserve SR 542 by reducing the risk of catastrophic loss, minimizing the need for repetitive maintenance.
- Maximize wetland impacts, provide fish passage and restore riparian habitat where possible.
- Visual quality will be maintained by re-vegetating in key locations to integrate the project into the surrounding rural landscape character.
- This project is expected to undergo construction in 2010.

When this project is complete, drivers will have a safer highway that is less prone to flood damage. This proactive approach will reduce flooding and maintenance road closures, save money, and protect vital fish habitat.

SR 542 scenic byway CED project goals and strategies:

Safety and mobility is the goal along this corridor. We intend to minimize disruption and cost required to maintain the roadway by making it a priority to pursue funds to minimize damage. We should also prioritize and fund projects that reduce maintenance costs and improve the corridor's stability. Partnerships will be needed to identify and construct stabilization measures that go beyond normal maintenance.

Goal: Secure safety along the corridor in a cost-effective way by acquiring funds to improve areas that see constant erosion. Secure funding to augment road stability that promotes ecological benefits as well as reduces maintenance concerns, and disruption of the use of the roadway, and maintains the ambience that draws people to this unique setting.

Strategies: Partner to secure funds that will enhance safety and provide funding for preventative projects that will decrease the impact of erosion on the roadway. These projects will minimize solutions that visually alter the surrounding area and will work to promote an appropriate vegetative canopy that helps augment appropriate solutions in the areas being reconstructed.

Anticipated labor intensive preservation projects:

WSDOT anticipates, based on history and available information, that more labor intensive projects will need to be undertaken in the next five years as explained below:

Bridge work: Preservation of the existing bridges is needed along this corridor to keep bridges in sound operating condition. The objective is to achieve the best long-term financial investment for a transportation facility and prevent failure of the existing system. WSDOT's bridge preservation program aims to extend bridge service life through diligent review of conditions and implementation of strategies that preserve the structures. Based on this work, the following has been identified for the SR 542 corridor:

The North Fork Nooksack Bridge at MP 35, Coal Creek Bridge at MP 36, and Fossil Creek Bridge at MP38 are susceptible to damage from slides or flooding. All of the bridge rails either meet or have been retrofitted to meet current standards except Half Bridge 542/38. It will likely receive a retrofit in the future. Coal Creek and Fossil Creek bridges both have metal guardrail and are more vulnerable to needing repairs due to third-party damage and falling trees. These are the two oldest bridges and will reach the end of their design life in 2009 and 2013, but they are not yet scheduled for replacement. Also, both are timber bridges and will likely need to have some of the members replaced in the future. Also, Fossil Creek Bridge is currently weight restricted.

Retaining walls: There is a leaning retaining wall that may need some future attention at the NE corner of MP44. It has moved recently and is listed in the "Recommended Bridge Repair List" as a Priority 4 - Monitor. This is currently not funded but being observed for future work.

Overlay work required: At MP 36 an asphalt overlay was applied; it will need a new one in five to 10 years. At MP38 an asphalt overlay will be needed in 10 to 15 years. Mileposts 34, MP 35, and MP 40 are overlaid with LMC and will be due for a new one by 2015. At MP 34 the roadway will also need to have the four expansion joints replaced. MP 42, 43, 44, 45, and 46 all have LMC overlays and will be due for a new one in 2023.

Funding has not been secured for these projects at this time, but they will be included in identified work programs so future funds can be identified and obtained.

Grant partnerships available:

Project development along SR 542 needs to be a partnership with federal, state and local jurisdictions. The Whatcom Council of Government has the ability to prioritize local initiatives and pursue regional, state and federal funds. Below are some potential funding opportunities for aesthetic treatments that go beyond safety improvements undertaken by WSDOT. Each listing includes a summary of the types of projects eligible for funding, some of the criteria for selecting projects and contacts for more information. This list is a good starting point to identify possible funding sources; however, grant funding programs change frequently, so diligent review and development of applications is necessary to facilitate partnerships that will help augment the scarce resources available through WSDOT and USFS.

Statewide enhancements:

Overview

The Federal Transportation Acts have provided a 10 percent set-aside from the Surface Transportation Program (STP) for the enhancement program. The enhancement program was created to invest in a more balanced, multi-modal approach to mobility and accessibility.

Purpose

The purpose of the transportation enhancement program is to fund projects that allow communities to strengthen the local economy, improve the quality of life, enhance the travel experience for people traveling by all modes, and protect the environment. Projects must relate to surface transportation and include at least one of the 12 qualifying activities listed below:

- Provision of facilities for pedestrians and bicycles.
- Provision of safety and educational activities for pedestrians and bicyclists.
- Acquisition of scenic easements and scenic or historic sites (including historic battlefields).
- Scenic or historic highway programs (including the provision of tourist and welcome center facilities).
- Landscaping and other scenic beautification.
- Historic preservation.
- Rehabilitation and operation of historic transportation buildings, structures or facilities (including historic railroad facilities and canals).
- Preservation of abandoned railway corridors (including the conversion and use of the corridors for pedestrian or bicycle trails).
- Inventory control and removal of outdoor advertising.
- Archaeological planning and research.
- Environmental mitigation
 - to address water pollution due to highway runoff; or
 - reduce vehicle-caused wildlife mortality while maintaining habitat connectivity.
- Establishment of transportation museums.



Applications for enhancement grants must be filed by a public agency and require a 13.5 percent match. Matching funds can be in-kind services, as long as the match can be quantified and is directly related to finishing the project.

For further information:

Statewide Enhancement Program, contact:

WSDOT Highways and Local Programs
Attn: Kathleen Davis, Director
Federal Funding Office
PO Box 47390
Olympia, WA 98504-7390
Telephone: 360.705.7377
e-mail: Davisk@wsdot.wa.gov

Statewide competitive surface transportation program (STP):

This program funds projects that seek to develop, improve, and/or preserve an integrated transportation system that encourages multimodal choices to the public. A broad range of projects and programs are eligible for funding, with the following eleven types specially defined:

- Construction, seismic retrofit, operational improvements, and 4R, including Interstate system and bridges,
- Capital costs for transit projects eligible for FTA funding,
- Fringe and corridor parking, carpool, vanpool, bicycle, and pedestrian facilities,
- Highway and transit safety improvements,
- Highway and transit research and technology transfer,
- Capital and operating costs for traffic monitoring, management and control facilities and programs,
- Surface transportation planning,
- Transportation enhancement activities including bicycle and pedestrian facilities, historic and scenic easements and facilities and wetlands mitigation,
- Certain Clean Air Act transportation control measures (TCMs),
- Development and establishment of management systems,
- Wetland mitigation.

A 20 percent matching fund is required for non-motorized (trail projects); all other projects require a 13.5 percent matching fund. Only public agencies may apply for funds.

For further information concerning statewide competitive Surface Transportation Program contact:

WSDOT Highways and Local Programs
Attn: Kathleen Davis, Director
Federal Funding Office
PO Box 47390
Olympia, WA 98504-7390
Telephone: 360.705.7377
e-mail: Davisk@wsdot.wa.gov



National Scenic Byway program:

This is a federally funded program specifically for the development of scenic highways. This program requires a minimum matching fund of 20 percent from a non-federal government source.

Types of projects and areas of eligibility are as follows:

- Planning, design, and development of state scenic byway programs,
- Making safety improvements to a highway designated as a scenic byway to the extent such improvements are necessary to accommodate increased traffic and changes in the types of vehicles using the highway, due to such designation
- Construction along the scenic byway facilities for the use of pedestrians and bicyclists, rest area, turnouts, highway shoulder improvements, passing lanes, overlooks and interpretive facilities,
- Improvements to the scenic byway that will enhance access to an areas for the purpose of recreation, including water-related recreation,
- Protecting historical, archeological and cultural resources in areas adjacent to the highways, and
- Developing and providing tourist information to the public, including interpretative information about the scenic byway.

This program requires a minimum matching fund of 20 percent from non-federal government source. Funds are administered through WSDOT.

For further information contact:

Washington State Department of Transportation
Highways and Local Program Division
Heritage Corridors Program
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