AGENDA

City Council Work Session

Monday, January 9, 2023 at 4:00 PM

City Hall Cowles Council Chambers In-Person & Via Zoom Webinar

Homer City Hall	**Zoom Webinar ID: 965 8631 4135 Password: 792566**
491 E. Pioneer Avenue	https://cityofhomer.zoom.us
Homer, Alaska 99603	Dial: 346-248-7799 or 669-900-6833;
www.cityofhomer-ak.gov	(Toll Free) 888-788-0099 or 877-853-5247

1. **CALL TO ORDER, 4:00 PM**

2. **AGENDA APPROVAL** (Only those matters on the noticed agenda may be considered, pursuant to City Council's Operating Manual)

3. **DISCUSSION TOPIC(S)**

   3.A. Work Session on CIP Project Evaluation and Federal Grant Recommendations from HDR **Page 2 - 99**

   Agenda Item Report - CC-23-011

4. **COMMENTS OF THE AUDIENCE** (3 minute time limit)

5. **ADJOURNMENT NO LATER THAN 4:50 PM** Next Regular Meeting is Monday, January 23, 2023 at 6:00 p.m., Committee of the Whole at 5:00 p.m. All meetings scheduled to be held in the City Hall Cowles Council Chambers located at 491 E. Pioneer Avenue, Homer, Alaska

CC-23-011

AGENDA ITEM REPORT

Work Session on CIP Project Evaluation and Federal Grant Recommendations from HDR

Item Type:	Informational Item
Prepared For:	Mayor and City Council
Meeting Date:	09 Jan 2023
Staff Contact:	Jenny Carroll, Special Projects & Communications Coordinator
Department:	Administration
Attachments:	Homer IIJA Grant and Financial Analysis Final Report and Presentation 20230104

Summary Statement:

Background: Applying for and winning competitive federal grants for small Alaskan communities like Homer requires significant investment in the applications and project development. There is additional investment required for securing match requirements.

Using a portion of the funds Council approved to support development and submission of Federal discretionary grant applications (Ordinance 22-39), City staff has had the opportunity to work with HDR Engineering to:

(1) screen Capital Improvement Plan projects to estimate how the project will score using quasi-Benefit to Cost Analysis approaches, as well as other IIJA criteria (project readiness, economic vitality, equity, innovative technologies, leveraging matching funds, resiliency and support/ partnerships);

(2) determine potential weaknesses in terms of project readiness; identify actions to better position projects for funding success;

(3) develop a strategic framework for submitting applications which will include a financial forecast of grant application costs and matching funds required.

The results of our work will be shared with you in a work session January 9, 2023, giving Council an opportunity to ask questions of HDR on the recommendations.

Next Steps: The City manager will provide an action memo at the next City Council meeting outlining financial and staff commitments necessary to advance the recommended projects.

Attachments:

Homer IIJA Grant and Financial Analysis Final Report and Presentation 20230104

Homer Spit in Homer, Alaska via Adobe

Homer, Alaska via Adobe

Grant Recommendations

IIJA Grant Assistance: CIP Project Evaluation and Financial Planning for Federal Discretionary Grants

City of Homer, AK

January 3, 2023

Section 1: Project Summary

Background and Purpose of Study

Communities across Alaska have planned infrastructure projects that could provide substantial benefits to the community and the economy but are stymied by funding gaps. With the passage of the Infrastructure Investment and Jobs Act (IIJA) in November 2021, along with the growth of other state and federal funding programs, the City of Homer has the chance to compete for significant funds to address local infrastructure needs.

Funds in the infrastructure bill offer more than $18 billion in grant-funding opportunities in federal fiscal year 2023 alone. This has increased competition for funding. Further, new and revised grant criteria have been developed, and many grant programs require submission at similar times of the year, straining the limited resources of communities applying for grants. Because of the increased competition for grant funding, applicants must often quantify the economic benefits of their projects to qualify for or assist with the grant evaluation process. Successfully competing for IIJA-related funding requires project development activities, staffing, and funds to apply and manage grant wins.

Since January 2022, HDR-supported grant applications have won $649 million in 19 states through 26 IIJA grant awards. Between 2009 and 2021, HDR helped prepare more than 95 grant applications, winning $2.3 billion and 15.4 percent of the total funds awarded nationwide from the Better Utilizing Investment to Leverage Development (BUILD), Infrastructure for Rebuilding America (INFRA), Consolidated Rail Infrastructure and Safety Improvements Program (CRISI), and Port Infrastructure Development (PIDP) programs. HDR's Alaska grant successes include wins for transportation, energy, and water projects in rural and urban areas.

The City of Homer and HDR partnered to evaluate projects on Homer's Capital Improvement Plan (CIP) list for federal discretionary grant competitiveness and provide recommendations for a work plan that focuses Homer's efforts on most competitive project/grant matches.

Benefits to the City of Homer from this work include an increased likelihood of successful grant applications, predictability in workflow and match commitments, and opportunities to streamline project development activities.

Team and Methodology

The core HDR project team was composed of an Alaska grant program lead / senior transportation planner, funding and policy project manager, municipal client advisor, and senior financial planner. This team was supported by HDR's Infrastructure Finance Director and senior economists for expert analysis and reviews of recommendations for quality assurance. Junior planners provided administrative support.

HDR and City of Homer staff reviewed documents related to project scope and benefits, funding sources, project and City financial plans, community planning, and public engagement to identify project

characteristics and funding plans. The team met nearly weekly from late September 2023 through the end of December 2023 to coordinate on project analysis and results.

The team matched CIP projects with federal discretionary grants and select other funding opportunities, developed funding recommendations and actionable work plans for each project and/or group of projects, provided a schedule of application/funding activities by year, and documented and presented findings.

Recommendations are based on project analysis combined with HDR's knowledge of federal grant programs, analysis of recent Notice of Funding Opportunities, fiscal year 2022 award announcements including HDR-supported wins, and discussions with federal agency staff.

These insights were used to assess the readiness of projects and the presence of merit elements in the projects, with the goal of determining the optimal alignment between projects and available grant opportunities. The analysis included planning and construction activities.

To develop a 2023 workplan to implement the above recommendations, City of Homer staff reviewed project recommendations then analyzed projects based on need, City Council priorities, and project readiness. This focused 2023 efforts on a reasonable workload given City resources to apply for grants and implement funded projects.

Documentation and Presentation of Findings

Section 2 of this report includes a presentation for a Homer City Council work session on work conducted, findings, and recommendations.

Project-specific writeups in Section 3 of this report detail grant strategy, scope, budget, and application-related activities.

An Excel workbook provides a flexible and editable work plan that aggregates activities for programmatic view and plans out application costs and potential match costs per project per year.

Documents are maintained on an HDR-sponsored Teams site. Final documents are submitted to the City of Homer in this report and on Teams.

Key Findings

Strategic Takeaways

Compared to similar-sized communities around the country, Homer is well positioned to take advantage of IIJA opportunities. This is due to extensive project development activities, high quality project advocacy and documentation, and creativity in pursuing funding sources.

Winning competitive federal grants will require the City of Homer to make a multi-year investment in application and project development. High funding levels are anticipated to continue past the remaining years of IIJA authorization and pursuing funding aggressively now will position for wins within IIJA and beyond.

The City of Homer is recommended to build capacity for leveraging funding with staff engagement and support in project development, grant applications, and ability to implement/manage projects.

Key Findings Summary

Nearly all the City of Homer's priority projects are eligible and competitive for significant funding sources. Some projects are ready for application and others require project development in the form of partnerships and data gathering/analysis.

CIP and project analysis found that several Homer's projects can be grouped together to achieve greater grant competitiveness and meet federal funding levels. This presents opportunities to creatively develop application project bundles for funding. Bundling requires robust internal coordination on project scopes, schedules, budgets, and development activities.

Resiliency is a major focus for IIJA grant programs and the White House. Many of Homer's projects demonstrate resiliency improvements and developing links to and evidence for resiliency will greatly aid grant competitiveness. HDR's analysis included a project grouping specially aimed at leveraging resiliency funding for Homer projects, and resiliency benefits can be included in nearly every grant application.

U.S. Department of Transportation's new definitions of equity criteria offer Homer an advantage. The City of Homer is advised to substantiate equity benefits of projects by developing partnerships with small communities, tribes, and traditionally underserved constituencies who might benefit from projects.

Work Plan

Overview

The City of Homer is recommended to apply for many grants in 2023 to set up for a multi-year funding strategy. First-time grant applications that don't win provide valuable feedback to strengthen components for future grant success.

Several high priority projects require continued project development activities to fully develop IIJA-related grant opportunities. Specifically, harbor-related, Spit, and resiliency projects require economic benefit-cost analyses (BCA) to identify benefits and joint/independent utility for grant applications. These economic analysis will provide key decisional factors for future funding strategies.

Partnerships with the Alaska Department of Transportation and Public Facilities (DOT&PF) and the U.S. Army Corps of Engineers are essential to funding success and project delivery. Continued investments in these relationships are advised.

Next Steps

The following activities are recommended for 2023 to secure funding and develop future funding opportunities.

1. Grant Applications
    a. Scalable portion of Harbor Improvements: System 4 Float Replacement and Other Harbor-Related Improvements – PIDP
    b. City-Wide Sidewalk/Trail Improvements – RAISE Planning
    c. Airport Terminal Improvements – Federal Aviation Administration Airport Terminal Program
    d. State grants for above projects
2. Project Development
    a. Harbor Improvements: System 4 Float Replacement and Other Harbor-Related Improvements; Port of Homer – New Large Vessel Harbor; Spit Erosion Mitigation; Resiliency Group Projects – BCA
    b. Slope Stability / Storm Water Erosion – Continue to pursue the National Oceanic and Atmospheric Administration Kachemak Bay National Estuarine Research Reserve grant and solidify agreements with DOT&PF
    c. Spit Erosion Mitigation – Develop competitiveness and agency agreements
    d. Public Works / Fire Station – Land acquisition

The City of Homer will have multiple decision points ahead associated with each project and grant opportunity. For example, the City will need to select and approve project by project grant applications and associated match. At a program level, the City could develop a plan to resource activities associated with project development, applications, and grant management.

Section 2: Presentation to Homer City Council, January 9, 2023


Brian from California Desert, United States, CC BY 2.0 via Wikimedia Commons

City of Homer

IIJA Grant Assistance: CIP Project Evaluation and Financial Planning for Federal Discretionary Grants

January 9, 2023

Presenters

Aurah Landau, Senior Transportation Planner, AK

Kiernan Maletsky, Transportation Planner, CO

Ashley Willoughby, Municipal Advisor, KY

Mathew Olson, Senior Financial Consultant, CA

Background and Purpose of Study

- IIJA funding is a generational opportunity
  - Includes high funding levels, new policy objectives, and many new grant programs/criteria
  - Requires project development activities, staffing, and funds to apply and manage
- Homer and HDR partnered to “reduce the noise” and focus Homer’s efforts on most competitive project/grant matches
  - Increase likelihood of grant wins
  - Create predictability in workflow and match commitments
  - Align with project development activities

Scott McMurren, CC BY 2.0, via Wikimedia Commons

What HDR Did

- Conducted a thorough review of documents related to project scope and benefits, funding sources, project and City financial plans, community planning, and public engagement
- Met with City staff nearly weekly for months
- Matched CIP projects with federal discretionary grants and select other funding opportunities
- Developed funding recommendations and actionable work plans for each project and/or group of projects
- Provided schedule of application/funding activities by year
- Presented results in a report, workbook, and Council work session
- HDR analysis team included HDR's Infrastructure Finance Director and Senior Economists for review and staff support by Junior Planners

MacDonald Spit near Homer, Alaska via Adobe

Key Findings - Strategic Long-Range Takeaways


Homer, Alaska via Adobe

- Homer is ahead of the game
- Winning competitive federal grants requires multi-year investment in application and project development
- High funding levels may continue past IIJA timeframe
- Develop capacity for funding: project development, grant application, and ability to implement/manage projects
- Look at financing (e.g. TIFIA) after grant funding options

Key Findings - Summary

- Go big! Group projects for greater grant competitiveness and meet federal funding levels
- Priority projects have identified funding options
  - Some projects are ready for application; Others require project development (partnerships, data gathering/analysis, etc.)
- Resiliency is a key competitiveness concept
- Continue building partnerships to address equity criteria
- Lots of 2023 work to set up multi-year win strategy
  - Planning work and BCAs for Float Replacement, Spit Erosion, New Large Boat Harbor, and non-motorized projects
  - Plan to reapply if don't win 1st time – industry average win rate is 20%, Homer potentially a bit higher due to analysis

Homer Spit Beach in Homer, Alaska via Adobe

Presentation of Findings

- Project-specific writeups in report detail grant strategy, scope, budget, and application-related activities
- Workbook provides work plan
  - Aggregates activities for programmatic view
  - Plans out application costs and potential match costs per project per year

Homer Spit in Homer, Alaska via Adobe

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Key Findings – Grant Recommendations

- Airport Terminal Improvements – ATP, NSFLTP
- Beluga Wastewater Lift Station Replacement – RD Water / Waste, CWSRF, Public Work / Economic Adjustment
- City-Wide Sidewalk/Trail Improvements - FY23 RAISE Planning Grant, several construction grant options*
- Fire Station Expansion – RD Community Facilities, BRIC/HGMP*
- Float Replacement & Other Harbor – PIDP*, NSFLTP, SOA
- Hornaday Park Improvements - LWCF
- Port of Homer (New Large Vessel Harbor) – USACE, PIDP*, Mega/INFRA*

*BCA required

Fishing Buoys in Homer, Alaska via Adobe

Key Findings – Grant Recommendations (cont.)

Homer Spit in Homer, Alaska via Adobe

- Public Works Facility - RD Community Facilities, BRIC/HGMP*
- Resiliency Group Projects – BRIC*, PROTECT*, Rural*
- Roadway Operational Improvements - Neighborhood Access and Equity Grants, SMART, Rural*, RAISE*
- Slope Stability / Storm Water Erosion – NOAA Oceans and Security Fund Program and Habitat Restoration Program, CWRSF, PROTECT*
- Spit Erosion Mitigation – Rural*, PROTECT*, BRIC/HGMP*
- Water System Improvements – BRIC/HGMP*, AK Drinking Water SRF

*BCA required

Fishing Buoys in Homer, Alaska via Adobe

Work Plan

- Apply for lots of grants in 2023 to set up for multi-year strategy
  - Major FY23 grants opening in Q1 2023 – will be a scramble
- Use 1st time grant applications to get feedback to strengthen components for grant success
  - Not all grants win on 1st application
  - Assume roughly 20% success rate on grant applications and some need to re-apply for the same project/grant program
- Continue project development activities
  - Harbor, Spit and Resiliency projects – BCA → determine options for PIDP, RAISE, PROTECT, etc.
  - USACE, DOT&PF partnerships
- Match requirements vary greatly by program
  - Plan to cover match

Homer, Alaska via Adobe

Typical Grant Outlays and Potential Funding

- Funding request
  - May be total project cost or %
  - Match 0-50% of funding request depending on program and project
- Ballpark application costs
  - BCA: $25-80K depending on scope of analysis
  - Application: $30-50K depending on complexity

Homer Spit in Homer, Alaska via Adobe

Next Steps for City of Homer

Homer, Alaska via Adobe

Implement FY23 grant strategy

- Grant applications
  - PIDP application – Float replacement
  - RAISE planning – Sidewalks/trails
  - FAA ATP – Airport
  - State grants for above
- Project development
  - Float replacement, new large vessel harbor, resiliency package - BCA
  - Slope stability - NOAA KBNERRS grant and solidify agreements with DOT&PF
  - Spit erosion – develop competitiveness, agency agreements
  - Public Works / Fire Station – land acquisition

Grant-specific decisions ahead

- Approve match
- Resourcing for project development, applications, and management

Match Strategies

- Match for proposed grants is 0%-50% depending on program
- Analyze grant for match specifics
- Winning strategies for some programs may require higher than minimum match
- Review previous award amounts & talk with agency

Beluga Lake in Homer, Alaska via Adobe

Potential Match Sources

- State or Congressionally-designated spending authorization
- Local sales tax or bonds
- Fish shares, CDFQ
- Loans – i.e. State revolving loan fund, federal loans
- Private investment
- In-kind contribution – personnel, goods, services, space, and utilities contributed by applicant or a non-Federal third party
- Atypical potential match options
  - Environmental mitigation credits
  - Donated ROW
  - Value of equipment necessary for project
  - Pre-award activities funded through non-federal sources

Homer, Alaska via Adobe

Winning Grant Strategies

- Prioritize community capital needs and develop a project pipeline
- Scope the project to fit the grant criteria
- “Brand” the project – i.e., “Gateway,” “Multimodal,” “Connector”
- Develop a compelling “story” as to why your project should be funded
- Ensure project “fits” all the merit criteria and your submittal is compliant
- Ensure all transportation projects are part of State/MPO Transportation Improvement Plan
- Secure strong political and stakeholder support
- Establish relationships with federal agency regional offices
- Engage Congressional delegation early and often – no surprises

Grant Application Components

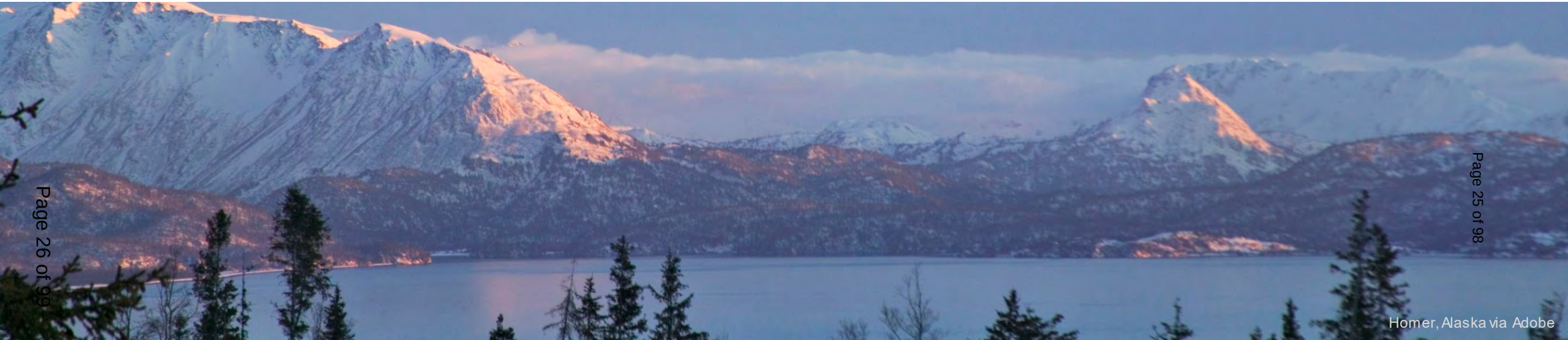
- Narrative
- Data and analysis
- Visuals
- Scope
- Schedule
- Budget
- Environmental
- Engineering and design
- Letters of support
- Grant management ability
- BCA and Technical Appendix

Homer, Alaska via Adobe

Critical Roles in Grant Preparedness and Application

- Project description – Program development, planners, engineers (cost estimates, schedules, plans), environmental analysts, financial analysts, economists*
- BCA – economists*
- Application – Grant manager, grant writer*, graphic designer, technical editor, engineers and subject matter experts, data researchers, political liaisons, financial analysts

** USDOT/FEMA experience important for aligning project with grant/agency standards*



Homer, Alaska via Adobe

Questions?

More Information

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Section 3: Project-Specific Recommendations

1. Airport Terminal Improvements
2. Beluga Wastewater Lift Station Replacement
3. City-Wide Sidewalk/Trail Improvements
4. Fire Station Expansion
5. Harbor Improvements: System 4 Float Replacement and Other Harbor-Related Improvements
6. Hornaday Park Improvements
7. Port of Homer – New Large Vessel Harbor
8. Public Works Facility
9. Resiliency Group Projects
10. Roadway Operational Improvements
11. Slope Stability / Storm Water Erosion
12. Spit Erosion Mitigation
13. Water System Improvements

Homer Airport Terminal Improvements

Contents

Overview

The Homer Airport serves essential air cargo, residents of Homer and outlaying communities, and tourism traffic into Homer, nearby National Parks, and other world-class tourism destinations. The airport terminal has obsolete fire suppression and air handling systems, failing exterior doors, aging exterior weatherproofing, does not meet ADA compliance, and lacks an emergency backup power generator needed to operate the terminal during blackouts and disasters.

Project Scope

This project would renovate the terminal interior and exterior to improve functionality, safety, ADA compliance, energy efficiency, weatherproofing, resilience for emergency situations, wayfinding, and function to leaseholders. While the scope of the project is still being developed, total project cost could range from $1.4 million to $3 million.

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State Funding Sources

Airport Improvement Program Grants

The Federal Aviation Administration (FAA) Airport Improvement Program (AIP)[1] provides grants to public agencies — and, in some cases, to private owners and entities — for the planning and development of public-use airports. Eligible projects include improvements related to enhancing airport safety, capacity, security, and environmental concerns. Applicants can get AIP funds for most airfield capital improvements or rehabilitation projects and in some specific situations, for terminals, hangars, and nonaviation development. 2022 grant awards to Alaska totaled just under $66 million, and awards went to projects with runway repairs, airport studies, and purchases of snow removal equipment. A BCA is required for all capacity projects requesting more than $10 million, and FAA can request them for smaller projects. For Homer, the grant would cover a range of 90-95% of eligible costs. AIP requires Buy America purchasing unless certain market conditions exist that make a waiver necessary.

These funds are programmed through the Alaska Department of Transportation and Public Facilities' (DOT&PF) Airport Capital Project Funding Plan (which is the state's AIP spending plan) project review and selection process. Project submissions are developed with DOT&PF and are reviewed by the Aviation Project Evaluation Board[2] (APEB). High-scoring projects are added to DOT&PF's Airport Capital Project Funding Plan. The APEB typically meets twice a year. Homer airport projects were last scored at APEB in April 2022.

DOT&PF has recently launched the Alaska Aviation System Plan to serve as a long-range aviation infrastructure and policy plan. It will identify needed airport improvements and set priorities for funding. Thus, the Airport Capital Project Funding Plan project selection process listed above may change.

Federal Discretionary Grant Funding Recommendations

A review of federal funding programs compatible with this project leads to a limited field of opportunities.

Airport Terminal Program

The City of Homer is already pursuing Airport Terminal Program[3] funds and should continue through the process of updating the airport layout plan (ALP), co-sponsorship agreement, and more. Project inclusion on DOT&PF's Airport Capital Project Funding Plan (listing priority projects)

[1] https://www.faa.gov/airports/aip
[2] https://www.alaskaasp.com/media/4014/aasp_apeb_fact_sheet_final.pdf
[3] https://www.faa.gov/bil/airport-terminals

will strengthen the application but does not appear to be required by FAA. Applications are usually due in the fall and must be submitted by DOT&PF.

Nationally Significant Federal Lands and Tribal Projects (NSFLTP) Program

NSFLTP[4] provides funding for the construction, reconstruction, and rehabilitation of nationally significant projects within, adjacent to, or accessing Federal and tribal lands. The program made available over $125 million in 2022.

This program seeks projects that:

- Further the goals of U.S Department of Transportation (USDOT), which include safety and the state of good repair;
- Improve the quality of life for a local community and/or the traveling public;
- Improve physical or operational deficiencies of the facility;
- Use new technologies and innovations; and
- Support economic vitality at the national and regional level.

For projects off of tribal lands, USDOT is looking for projects that ensure equitable investment in the needs of underserved communities; Align with the Federal Highway Administration's (FHWA) mission and with priorities such as equity, climate and sustainability, and economic strength and global competitiveness; and Support the creation of good-paying jobs with the free and fair choice to join a union, and the incorporation of strong labor standards and workforce programs.

Local governments may apply for funding under NSFLTP if sponsored by an eligible Federal land management agency (FLMA) or federally recognized Tribe. FLMAs in the Homer area are the National Park Service and U.S Fish and Wildlife Service. DOT&PF and FLMAs collaborate in Alaska through TWiG, and they are highly interested in partnering with local governments for project development.

NSFLTP requires a 10% match for non-tribal applications and certain federal funds may be used as match. NEPA must be completed on projects for eligibility under NSFLTP. Applications are expected to open in summer 2023.

This program has uncertain fit for Homer. On one hand, NSLTP is administered by FHWA and has a focus on surface transportation like roads and trails. Additionally, the program seems intended to improve access entry points rather than more distant access departure points. On the other hand, travel to Lake Clark National Preserve, Katmai National Park, Kenai National Wildlife Refuge, and the Alaska Maritime National Refuge requires plane or boat travel, and road access is not possible.

[4] https://highways.dot.gov/federal-lands/programs/significant

Homer can make a strong case for the necessity of airport facilities in park and refuge access. It is suggested that Homer spend several months networking and collaborating with nearby National Parks, TWiG, and FHWA to determine whether airport projects are eligible and competitive under NSFLTP.

Due to the NEPA-completion requirement, if eligible, an application for airport projects could serve to cover funding gaps identified further into the project development process.

Bundling

Grant recommendations for the Homer Harbor System 4 Float Replacement will include this same NSFLTP suggestion. If Homer projects are found to eligible, it may be possible to bundle airport and harbor improvements into one application because both departure points provide essential access to federal lands.

Due to the essential emergency services and resiliency benefits provided by the backup generator and solar installation, this component can be added to a resiliency project application.

Wayfinding elements of this project may be included in a non-motorized project application.

Schedule of Activities and Funding and Match Plan

The multi-project activity and match plan outlines a workplan associated with applying for grant programs listed above and potential revenues and expenditures by year.

This spreadsheet offers a program management tool for the City of Homer to use in planning and tracking federal discretionary grant activities and financial obligations.

Homer Beluga Wastewater Lift Station Replacement

Contents

Overview

The City of Homer requires adequate sewer infrastructure to meet the needs of the community. The Beluga Slough Lift Station is a critical piece of the sewer system, serving much of the Spit and its vital economic contributions to the community. Local sanitary sewer facilities are often financed initially through capital loan and programs. Repairs and replacements are traditionally funded and supported through customer rate reserves. This project appears to reflect some level of replacement need from difficult operating conditions. Sewer facilities may suffer from highly acidic operating environments, which tend to wear out components more rapidly. Most Federal and state funding programs do not cover maintenance type of projects but may include major replacement. Considering this scenario, this project is likely a candidate for the mainstream wastewater programs, as well as potentially a specialty program since it serves an economically critical area to the community.

Project Scope

The present facility cannot be rehabbed with general repairs. The rehabilitation will need to include alternate components designed to operate in the harsh acidic sewer environment. This

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may open the opportunity to examine more innovative or efficient components. The City of Homer has prioritized the rehabilitation of the sewer lift station with a more durable wet well and pump components that can better withstand the septic conditions. The project would include final design and retrofitting of a fiberglass wet well within the concrete structure, new pumps and stainless components at an estimated cost of $2.9 million.

Federal Discretionary Grant Funding Recommendations

Rural Development Water/Waste Disposal Loan and Grant

A review of federal funding programs compatible with this project includes the mainstream sewer programs. The primary federal funding program to consider is U.S. Department of Agriculture's (USDA) Rural Development (RD) Water/Waste Disposal Loan and Grant program[1]. This program matches up well for eligibility, activities proposed, and priority scoring. Drawbacks are the program is competitive within the state, grant funds are limited (35% based upon local demographics) and are usually combined with loan funding. Advantages are flexible usages, low interest rate loans (currently 3.5%) with up to 40-year terms, and a standardized application process with no Benefit Cost Analysis.

This program has an open window for applications. However, since RD receives annual program allocations on a federal budget year (October through September) and projects are funneled through on a first come-first served basis, projects submitted late in the budget cycle may be pushed to the next year.

There is $1.5B in available loan authority. There is $490M nationwide but each state only receives a formula share. Most projects do not exceed $5 million.

The RD Water and Wastewater Disposal program has limited total funding for Alaska. RD Alaska awarded approximately $1.2M in grants in 2021 for water and environmental projects with several more million dollars made available in low interest loans.

RD programs are somewhat on the low end of federal strings and regulations; however, there are a few items to be aware of. The program will require a preliminary engineering report and review by RD. Projects with loan funds will require a bond counsel for closing the loan (fees can be included in loan). When loan funds are used, they typically must be used first and grant funds last.

Given the overlap for this funding program recommendations between this project and other Homer water system improvements, it is recommended that the City of Homer pick a priority project for this fund source for immediate application and push a second project application

[1] https://www.rd.usda.gov/programs-services/water-environmental-programs/water-waste-disposal-loan-grant-program/ak

further into the future. In addition, the City might consult with USDA to determine funder project preference.

Economic Development Administration's Public Works / Economic Adjustment Program

The project could also potentially be eligible under the Economic Development Administration's (EDA) Public Works / Economic Adjustment program since it serves the community's primary economic district. Competitive applications generally need to make the case that they are in "economically distressed areas" and that the project will contribute to new jobs or saving existing jobs. This may be difficult to establish without a private commercial or industrial partner willing to commit to providing new jobs or saving jobs and private investment. The program also requires matching funds and private investment[2]. The EDA application is an open window submission with quarterly review as funds are available.

EDA usually offers up to 50% with the remainder of project costs covered by match and "private investment" from a local benefitting employer. In some cases, up to 80% is covered. A local company that will add or save employment as a result of the EDA investment needs to be identified.

Bundling

There may not be many opportunities to bundle this project with others for the above federal grants to improve eligibility or competitiveness since this project will not add additional resilience or improve services above those currently available.

If other infrastructure improvements were included as part of a Spit Erosion Mitigation project, this project could be included as part of those improvements.

State Funding Sources

Alaska Clean Water State Revolving Fund

Additional funding consideration should be given to the Alaska Clean Water State Revolving Fund (CWSRF). While traditionally a low interest loan program, it does have a "Green" project reserve that can provide a subsidized forgivable portion (grant). The Green reserve is based upon standardized activities or business case submissions to determine the "green" project costs eligible for subsidy. It is recommended to examine project qualifications for eligibility for the Green portion of the program. If a case can be made that the project contains fundable Green reserve activities, it may help the project qualify for additional subsidy. The 2023 Intended Use Plan allocated $692,000 in additional subsidy for Green Projects.

[2] https://eda.gov/pdf/about/Public-Works-Program-1-Pager.pdf

The CWSRF program requires project inclusion in the state's annual Intended Use Plan. It appears the project has been included in the 2023 Intended Use Plan list of eligible loan projects[3] where it was ranked 10th and eligible for loan funding. It did not receive any allotment for program principal forgiveness and Green reserve was listed as to-be-determined.

Alaska had $69 million in loan funds available for 2023 CWSRF program & approximately $1 million in forgivable principal. This program has an application window yearly Intended Use Plan (quarterly update).

The CWSRF can do $500,000 in principal forgiveness and will do the remainder as a low interest loan (3% or less).

Direct Appropriation

This project might be a good candidate for a direct Legislative appropriation because it could impact local emergency services. Consider bundling it with the Fire Station project in a capital request.

Schedule of Activities and Funding and Match Plan

The multi-project activity and match plan outlines a workplan associated with applying for grant programs listed above and potential revenues and expenditures by year.

This spreadsheet offers a program management tool for the City of Homer to use in planning and tracking federal discretionary grant activities and financial obligations.

RD is the most likely funding source. Given project costs, either EDA or CWSRF could be good funding sources as well.

A 50% award is assumed for the EDA grant.

[3] https://dec.alaska.gov/water/technical-assistance-and-financing/state-revolving-fund/

City-Wide Sidewalk/Trail Improvements

Contents

Overview

General Approach

This project groups together the many sidewalk and trail improvement projects around Homer to raise a potential funding request up to a federal grant level, bundle similar projects together to maximize the value to Homer of a potential award, and include a variety of benefits likely to attract funding. Project groupings would be competitive for a variety of grant programs.

A multi-year strategy is to apply for State of Alaska Transportation Alternatives Program (TAP) and Community Transportation Program (CTP) funds as well as a Rebuilding American Infrastructure

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with Sustainability and Equity (RAISE) planning grant as early as possible. If awarded, these funds may be cross applied to develop design and advance into construction. RAISE planning funds will progress Safe Streets and Roads For All (SS4A) grant application possibilities and provide incentive for the Alaska Department of Transportation and Public Facilities (DOT&PF) to participate in partial construction funding for project portions on DOT&PF streets. RAISE planning grant activities will examine economic competitiveness for a RAISE construction grant.

Project Scope

Projects included in this recommendation can be mixed and matched to speak to specific grant program criteria. **Table 1** lists projects to consider for bundling. Scopes for projects are laid out in Homer's Capital Improvement Plan (CIP) and Transportation and Trails Plan 2022 Supplement. The potential projects that could be packaged for this recommendation include those explicitly focused on non-motorized facilities (such as the Ben Walters Lane Sidewalk Facility) as well as those that could be advanced concurrently with one of these facilities (such as the Kachemak Drive Slope Stability project). Finally, some of the grant recommendations include the opportunity to create more broadly defined "mobility hubs" and other programmatic transportation improvements. Such an approach could allow for the implementation of projects such as parking on the Spit.

Table 1 Projects to Include in City-Wide Sidewalk/Trail Improvement Grant Applications

Project Name	CIP Page #
Ben Walters Lane Sidewalk Facility	34
Kachemak Drive Non-Motorized Pathway (State)	46
Slope Stability - Kachemak Drive Wetland Treatment System	3
Svedlund/Herdon Street Sidewalks	40
Main Street Sidewalk Facility: Pioneer Avenue South to Ohlson Lane (State)	48
Homer All Ages & Abilities Pedestrian Path (HAPP)	28
Wayfinding & Streetscape Plan Implementation	42
Homer Airport Terminal Improvements – Wayfinding signage/kiosk	37
East Hill Bike Lane	45
West Hill Road Bike Lane	50
Main Street Rehabilitation	47
Homer Spit Campground	18
Homer Spit Trailhead Restroom	19

Project Name	CIP Page #
Nick Dudiak Fishing Lagoon Accessible Ramp & Retaining Wall	14
Remaining sidewalks/trails/paths identified in Transportation and Trails Plan 2022 Supplement	57
Spit Parking/Tsunami Evacuation Structure	n/a

Federal Discretionary Grant Funding Recommendations

A review of potential funding sources found several viable options and others to explore as the project is developed and funding programs mature.

RAISE

A 2023 RAISE[1] planning grant is recommended to advance project readiness.

The application would propose a study to advance design, financing, and environmental review (and other project development activities as needed). The study area could either be City-Wide, which is likely the best option, an expansion of the Homer All Ages & Abilities Pedestrian Path, or a focus on one of the Areas of Interest identified in the Transportation and Trails Plan 2022 Supplement: 1) West Homer; 2) East Homer; 3) Town Center; 4) Beluga Slough.

The RAISE program sets aside at least $75 million per year for planning grants, which can fund a wide range of pre-construction activities. The minimum award size for rural applicants such as Homer is $1 million. There is no match requirement for rural applicants.

Planning grant applications are evaluated on the basis of alignment with the program's merit criteria (most critically Safety, Environmental Sustainability, Quality of Life, and Mobility and Community Connectivity) as well as financial completeness. They do not require a BCA or environmental risk analysis.

Through a planning grant, Homer could define a "bundle" of sidewalk and trail improvements that targets a future capital grant (likely the RAISE program, but that is not required). Impacts of projects could be measured usefully for a surface transportation improvement project. Through this lens, the City could set a larger capital cost target than might be feasible using only local funds.

[1] https://www.transportation.gov/RAISEgrants

One approach to identifying this bundle of improvements could be to target a future RAISE capital grant, both in terms of the scale and cost of the project and alignment with RAISE evaluation criteria. Potential targets for this approach are summarized in **Table 2**.

Table 2 RAISE Planning Grant Application Strategies

Category	Approach and Explanation
Project Definition	A critical step to success with both the planning grant and capital grant application is defining a strong project that, "encourages projects that address climate change, proactively address racial equity, and reduce barriers to opportunity."
Project Cost	Potential high-end target of **$18.75 million total capital cost** • $15 million capital RAISE grant request (average of 2022 awards) • $3.75 million in matching funds (average match percentage for successful rural applicants in 2022). This could include City funds, but also potentially matching State funds, given the potential for projects on State roadway facilities. Estimated costs for priority sidewalk/trail needs in the CIP, include: • Homer All Ages & Abilities Pedestrian Path ($4.25 million) o Svedlund from Senior Center to Pioneer Avenue: $800,000 o Lee Street to Main Street: $1,200,000 o Main Street South to Ohlson Lane: $2,000,000 o Pedestrian crosswalk improvement $250,000 • Svedlund/Herndon Street Sidewalks: $2 million • Ben Walters Lane Sidewalk Facility: $1.6 million • Wayfinding & Streetscape Plan Implementation: $270,000 • Kachemak Drive Non-Motorized Pathway: $2 million
Benefit-Cost Analysis	The planning grant could help surface a bundle of projects that maximizes benefits to help generate a Benefit-Cost Ratio over 1. This includes both targeting projects with the greatest impact in terms of expected use and addressing known safety or mobility issues as well as additional data collection to strengthen the analysis. Some of these potential target areas have already been identified through previous planning work in Homer. The Ben Walters Lane facility, for example, serves access to a school, and the Svedlund/Herdon Street Sidewalks project serves the Senior Center.

Category	Approach and Explanation
Merit Criteria	The RAISE evaluation process includes a merit screening – projects must demonstrate a strong alignment (by demonstrating quantitative impacts that go above and beyond standard practice) for at least five of the below criteria and must address all eight criteria to some extent. In conducting a RAISE planning effort, Homer could develop strong arguments around the known merit criteria to maximize the likelihood of capital grant success. **Primary Criteria** • Safety • Environmental Sustainability • Quality of Life • Mobility and Community Connectivity **Secondary Criteria** • Economic Competitiveness • State of Good Repair • Partnerships and Collaboration • Innovation

Additionally, the planning grant could fund much of the project development work required to federalize projects, including environmental clearance. Right-of-way acquisition is not an eligible planning grant activity.

Risks or challenges for the RAISE program for this type of project are summarized in **Table 3.**

Table 3 Risks and Mitigation Strategies for RAISE Grant Application

Risk	Mitigation Strategy
Demonstrating the capacity to administer a grant of this size	The planning grant application should emphasize Homer's plan to manage the capital grant agreement process, meeting federal requirements such as Buy America and Davis/Bacon Wage, and project reporting/audit preparedness. RAISE planning funds do not carry a specific timing restriction beyond the overall obligation limit for all program funding – for 2022, the obligation limit was September 2026 – so a good working assumption is four years from the application year. However, "applicants

Risk	Mitigation Strategy
	should describe their capacity to successfully implement the proposed activities in a timely manner."
RAISE has a strong emphasis on serving disadvantaged and underserved communities	RAISE (and other recent USDOT grant applications) have approached the implementation of the Justice 40 initiative from both an existing conditions (the demographic measures noted previously) and also a project planning and delivery perspective. Homer could use RAISE planning funds to support a robust public and community engagement process that works to integrate a broad range of perspectives, especially vulnerable road users such as people with disabilities.

Insights Based on 2022 RAISE Planning Grant Awards

- Grant request amount: Between $1 million and $25 million
- Average grant request amount among successful applicants: $15 million
- No local match requirement for rural applicants
- Average award amount for rural applications: 80%
- Among successful rural applications, one-third awarded 100% funding
- 937 applications in FY 2022 and 166 winners – or 18%, which is more than double the success rate in previous years.
- About half the winners (and applications) were from cities/municipalities

Table 4 describes a variety of similar projects that won RAISE grants in 2022.

Table 4 "Inspiration" Projects Awarded Funds in FY 2022 RAISE

Applicant	Project Name	Grant Type	Project Description (At Time of Award)	Grant Award	Project Cost	Amount Requested
City of Nampa (Idaho)	Reconnecting Accessibility and Improving Safety and Equity in Nampa	Planning	This project will plan and design local and regional multimodal connectivity solutions to benefit residents in the North Nampa Neighborhood. These improvements include	$5M	$5M	$5M

Applicant	Project Name	Grant Type	Project Description (At Time of Award)	Grant Award	Project Cost	Amount Requested
			sidewalk network expansion and modernization, shared use path construction, pedestrian pathway extension, a new pedestrian bridge, the replacement of an existing vehicular and pedestrian bridge, the modernization of two railroad underpasses, and the investigation and programming of new transit services.			
City of Waterbury (Connecticut)	Waterbury Active Transportation Economic Resurgence (WATER) Phase II	Capital	This project will fund construction of Phase II of the City of Waterbury's section of the Naugatuck River Greenway Trail (2.3 miles); construction of a Jackson Street Riverfront Park; West Main Street Renovation and Streetscaping Improvements; and the addition of Electrical Vehicle Charging Stations at the Downtown Waterbury Train Station.	$23M	$23M	$24M
City of Elizabeth	Weeksville Road	Planning	The City of Elizabeth City proposes the	$2M	$2M	$2M

Applicant	Project Name	Grant Type	Project Description (At Time of Award)	Grant Award	Project Cost	Amount Requested
City (North Carolina)	Accessibility & Connectivity Plan		Weeksville Road Accessibility and Connectivity (WRAC) Plan to engineer and design an approximately 3.6-mile multi-use path on Weeksville Road (NC 344) and add sidewalks/paths on key local connectors to the NC 344 corridor. The WRAC Plan will advance the project elements to a near-construction ready state.			
Pueblo of Laguna (New Mexico)	Pueblo of Laguna Bike/Pedestrian Trail	Planning	The project will 1) develop a comprehensive bike/pedestrian route plan for Pueblo of Laguna villages, which will include a phasing plan; and 2) develop complete engineering designs, including related surveys, studies, and environmental (NEPA) and archaeological clearances, to make top-priority routes “shovel-ready.”	$1.5M	$1.5M	$1.5M

Economic analysis conducted as part of the project planning activities will determine competitiveness of a potential future RAISE construction grant application.

Safe Streets and Roads for All

Once a Homer or Kenai Peninsula Borough Safe Streets and Roads for All (SS4A)-compliant Action Plan is complete and relevant local projects are included, SS4A funds may be used for project implementation. Projects would need to demonstrate a safety benefit.

Recipients are required to contribute a local matching share of no less than 20 percent of eligible activity costs. All matching funds must be from non-Federal sources, which could include in-kind contributions, funding from the applicant, or other SS4A-eligible non-Federal sources[2] partnering with the applicant.

Steps to develop projects for SS4A include:

1. Add projects to area or local safety plans that meet SS4A requirements.
2. Delineate project safety risks and benefits, including further analysis of existing crash data and/or new data collection.

Projects in the Roadway Operational Improvements could be bundled with these projects for a SS4A grant application.

Strengthening Mobility and Revolutionizing Transportation (SMART) Grant Program

The SMART[3] program focuses on projects to advance smart city or community technologies and systems to improve transportation efficiency and safety. USDOT is looking to fund demonstration projects that solve real-world challenges by using technology interventions while building data, technology capacity and expertise in the public sector. SMART is structured with a two-step process. Projects may apply for a Planning and Prototyping Grant. Recipients of these grants will be eligible for Stage 2 Implementation Grants.

Stage 1 SMART grant awards do not have a match requirement.

If Homer were to include electronic wayfinding systems in trail and recreation facilities or integrate the project with sensor-based data gathering or smart signals, it is recommended to review SMART program goals and eligible activities to assess funding opportunities.

SMART-eligible projects include:

[2] https://www.transportation.gov/sites/dot.gov/files/2022-08/SS4A-Match-and-Cost-Share-Examples_2.pdf
[3] https://www.transportation.gov/grants/SMART

- Coordinated Automation—Use of automated transportation and autonomous vehicles while working to minimize the impact on the accessibility of any other user group or mode of travel. • Connected Vehicles—Vehicles that send and receive information regarding vehicle movements in the network and use vehicle-to-vehicle and vehicle-to-everything communications to provide advanced and reliable connectivity.
- Intelligent, Sensor-based Infrastructure—Deployment and use of a collective intelligent infrastructure that allows sensors to collect and report real-time data to inform everyday transportation-related operations and performance.
- Systems Integration—Integration of intelligent transportation systems with other existing systems and other advanced transportation technologies.
- Commerce Delivery and Logistics—Innovative data and technological solutions supporting efficient goods movement, such as connected vehicle probe data, road weather data, or global positioning data to improve on-time pickup and delivery, improved travel time reliability, reduced fuel consumption and emissions, and reduced labor and vehicle maintenance costs.
- Leveraging Use of Innovative Aviation Technology—Leveraging the use of innovative aviation technologies, such as unmanned aircraft systems, to support transportation safety and efficiencies, including traffic monitoring and infrastructure inspection.
- Smart Grid—Developing a programmable and efficient energy transmission and distribution system to support the adoption or expansion of energy capture, electric vehicle deployment, or freight or commercial fleet fuel efficiency.
- Smart Technology Traffic Signals—Improving the active management and functioning of traffic signals, including through:
    - Use of automated traffic signal performance measures;
    - Implementing strategies, activities, and projects that support active management of traffic signal operations, including through optimization of corridor timing; improved vehicle, pedestrian, and bicycle detection at traffic signals; or the use of connected vehicle technologies;
    - Replacement of outdated traffic signals; or
    - For an eligible entity serving a population of less than 500,000, paying the costs of temporary staffing hours dedicated to updating traffic signal technology.

Neighborhood Access and Equity Grants

The Inflation Reduction Act[4] contains $3 billion to fund Neighborhood Access and Equity Grants, a new program that aims to rework overbuilt arterial roads and make them safer and more accessible for various modes of transportation.

Grants will reconnect communities divided by existing infrastructure, mitigate negative impacts of transportation facilities or construction projects on communities and support equitable transportation planning. The grants can be used to build connections across highways and railroads, and to redesign roads that are dangerous to cross.

Eligible projects, criteria, match requirements, and other program details have not yet been defined.

This is new program and should be monitored for opportunities for a City-Wide Sidewalk/Trail Improvements bundle of projects. Once the grant program opens, also evaluate bundling this project with Roadway Operational Improvement.

State-Administered Formula Funding Opportunities

DOT&PF Transportation Alternative Program (TAP)

Some of the community trail and sidewalk projects would be competitive under DOT&PF's TAP[5] program.

- Attractive projects would be those that abut state roads since DOT&PF has committed to designing and maintaining TAP-funded projects.
- The Kachemak Drive portion of the slope stability project combined with the non-motorized pathway project would be especially competitive since it addresses several project priorities: pedestrian and bicycle facilities; construction of viewing areas; environmental mitigation related to stormwater and habitat connectivity; and recreational trails.
- DOT&PF has merged the Safe Routes to Schools[6] program into TAP. A project grouping focused on safe routes to schools as a theme, including the Ben Walters project, could also score well on TAP applications.

[4] https://www.hdrinc.com/insights/advisory-services-snapshot-inflation-reduction-act-direct-investments-infrastructure
[5] https://dot.alaska.gov/stwdplng/cip/stip/projects/TAP.shtml
[6] https://dot.alaska.gov/stwdplng/saferoutes/

Each federal grant program defines match slightly differently. Funding sources for TAP may allow awards to serve as eligible match sources for federal grants.

DOT&PF Community Transportation Program (CTP)

The CTP[7] program funds maintaining, improving, or building surface transportation facilities, enhancing travel and tourism, reducing wildlife-vehicle collisions, improving air quality, and projects that connect different types of transportation such as roads and trails. Homer qualifies as Urban and Rural for this program.

The travel and tourism and connecting transportation elements lend themselves to a bundle of projects focused on the Spit and Kachemak Drive that include:

- Kachemak Drive Non-Motorized Pathway (State)
- Homer Spit Campground
- Homer Spit Trailhead Restroom
- Nick Dudiak Fishing Lagoon Accessible Ramp & Retaining Wall

Depending on timing of application and in consultation with DOT&PF, the Spit Coastal Erosion Mitigation engineering and design costs could be included in this project bundle.

State Recreational Trail Funds

The State of Alaska Department of Natural Resources Division of Parks and Outdoor Recreation (DPOR) administers the Federal Highway Administration's (FHWA) Recreational Trails Program[8] (RTP).

The DPOR offers this competitive, reimbursable, matching trail grant for maintaining public recreational trails and related facilities, and for safety and educational projects.

The RTP grant program provides up to 90% reimbursement of eligible costs for the entire project cost; grantees are responsible for 10% of the entire project cost. Eligible applicants include non-profits, educational institutions, state government, local government, federal government and native corporations or tribal governments.

[7] https://dot.alaska.gov/stwdplng/cip/stip/projects/CTP.shtml
[8] http://dnr.alaska.gov/parks/grants/trails.htm

Funding Research Resource

Active Transportation Program

The Federal Highway Administration has a robust toolkit built to support financing bicycle and pedestrian facilities.[9] These formula funding and financing recommendations should be further explored. RAISE planning grant funding can be used to develop projects for inclusion in DOT&PF formula funding, with the City of Homer developing design and DOT&PF funding construction.

Fund sources and example uses identified in the toolkit include:

- The Surface Transportation Block Grant (STBG) program provides flexible funding to States for use on a variety of modes. In Missoula, Montana, STBG funds are helping replace the Russell Street bridge over the Clark Fork River. The project includes 5.5-foot-wide raised bicycle lanes, as well as bicycle and pedestrian crossings, which will provide connections to the riverfront and the Milwaukee Trail (Montana DOT, 2018).
    - DOT&PF usually distributes these funds through TAP and/or CTG.
- The Transportation Alternatives (TA) Set-Aside from the STBG program provides funds for smaller-scale transportation projects, such as pedestrian and bicycle facilities, historic preservation, vegetation management, environmental mitigation, recreational trails, and Safe Routes Partnership projects. Projects eligible under the TA Set-Aside also are eligible under STBG (FHWA), 2021b).
    - DOT&PF usually distributes these funds through TAP and/or CTG.
- The Recreational Trails Program (RTP), a set-aside from the TA Set-Aside (but typically administered through a State resource agency), funds projects for recreational trails and trailside facilities. Projects eligible under the RTP also are eligible under the TA Set-Aside and STBG (FHWA, 2021b).
    - DNR administers these funds.
- Congestion Mitigation and Air Quality Improvement Program (CMAQ) funds surface transportation projects that improve air quality and reduce congestion. Bicycle and pedestrian projects are eligible for CMAQ funds (FHWA, 2021b). All States receive CMAQ funds, which must be spent in areas that do not meet National Ambient Air Quality Standards or have recently become compliant. CMAQ funds helped pay for construction for the Hampline bikeway in Memphis, a featured case study in this toolkit.
    - DOT&PF often applies CMAQ funds to projects with these benefits that are already included in the STIP.

[9] https://www.fhwa.dot.gov/environment/bicycle_pedestrian/resources/atfft/index.cfm#funding-strategies

- Highway Safety Improvement Program (HSIP) funds can be used for bicycle and pedestrian safety projects, including on and off-road projects, that focus on bicycle and pedestrian safety. The Oregon Department of Transportation (ODOT) developed the All Roads Transportation Program to allocate HSIP funding through a data-driven process that considers all roads, regardless of roadway ownership (ODOT, 2018). Through this program, HSIP funds helped deliver the Commercial-Vista Corridor Project, a set of aesthetic and infrastructure improvements along the Commercial Street SE corridor. These improvements included bicycle lanes and protections for pedestrian crossings (ODOT, 2021b).
    - DOT&PF HSIP projects are requested by communities or through a DOT&PF call for HSIP projects and scored through a comparative evaluation process. These projects are usually then included in the STIP.
- The National Highway Performance Program (NHPP) focuses on the performance of the National Highway System (NHS). Pedestrian and bicycle transportation projects associated with NHS facilities are eligible (FHWA, 2021b). Washington State DOT (WSDOT) allocated NHPP funds for a set of pedestrian mobility and safety improvements on Columbia Center Boulevard (WSDOT, 2018).
    - DOT&PF often applies NHPP funds to projects with these benefits that are already included in the STIP.

Schedule of Activities and Funding and Match Plan

The multi-project activity and match plan outlines a workplan associated with applying for grant programs listed above and potential revenues and expenditures by year.

This spreadsheet offers a program management tool for the City of Homer to use in planning and tracking federal discretionary grant activities and financial obligations.

Homer Fire Station Expansion

Contents

Overview

As a vital component of public safety infrastructure, the fire station facility needs to be adequate to meet the needs of the community. Traditionally, local public safety buildings and facilities have been locally funded and supported with few direct outside funding opportunities. Most Federal and state funding has been geared towards personnel training, equipment provisions, and emergency preparedness for these important services. Considering this scenario, a combination of funding resources may need to be investigated to fund these types of requests, as no single source may be fully capable of financing the project.

Project development is necessary to advance this project's grant readiness.

Project Scope

The present facility, built in the 1980s, is not sufficient to provide adequate operations, even with general repairs or rehabilitation. The City of Homer has prioritized the development of a new facility, designed to accommodate current and future apparatus, equipment, and personnel. Acquisition of a new site for the facility may be necessary and is an unknown cost factor. The project would include site feasibility, design, and construction of a larger station at an estimated cost of $20 million.

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Federal Discretionary Grant Funding Recommendations

A review of federal funding programs compatible with this project leads to a limited field. Recommended funding sources are identical to those identified for the Public Works facility.

Rural Development (RD) Community Facilities Direct Loan and Grant program

The primary federal funding program to consider is U.S. Department of Agriculture's (USDA) Rural Development (RD) Community Facilities Direct Loan and Grant program[1]. This program matches up well for eligibility, activities proposed, and priority scoring. Drawbacks are the program is competitive within the state and grant funds are limited (35% maximum based upon local demographics) and are usually combined with loan funding. Advantages are flexible activity usages, low interest rate loans (currently 3.5%) with up to 40-year terms, and a standardized application process with no Benefit Cost Analysis.

The RD Community Facilities Loan and Grant Program has an open window for applications. However, since RD receives annual program allocations on a federal budget year (October through September) and projects are funneled through on a first come-first served basis, projects submitted late in the budget cycle may be pushed to the next year.

The RD Community Facilities program has limited total funding for Alaska. Most projects do not exceed $5 million. It may be difficult for the program to fully fund the project, so it is recommended to discuss with RD state staff to determine any funding caps or strategies. Rural Development programs are somewhat on the low end of federal strings and regulations; however, there are a few items to be aware of. The program will require coordination with an architect and RD's architect and engineering team to assure adherence to appropriate design standards. Projects with loan funds will require a bond counsel for closing the loan (fees can be included in loan). When loan funds are used, they typically must be used first and grant funds last.

Federal Emergency Management Agency (FEMA) Funding

Secondarily, the FEMA Building Resilient Infrastructure and Communities grant program / Hazard Mitigation Grant Program (BRIC / HMGP) may be a potential source when the Fire Station is combined with a new Public Works building and if an adequate site for co-location could be found out of the tsunami zone and within acceptable accessibility to main routes and run times.

The program is directed towards helping communities build infrastructure that is resilient to identified natural hazard risks like tsunami inundation and coastal flooding. The advantages of the program are that it can fund large scale, high dollar projects and can provide up to 75% grant (13% state / 12% local match) and targets emergency preparedness. These programs are not an ideal match for the Fire Station project right now, since they favor projects that are shovel ready and

[1] https://www.rd.usda.gov/programs-services/community-facilities/community-facilities-direct-loan-grant-program/ak

address multiple community “lifelines” such as resiliency of transportation, water, or communication.

The BRIC / HMGP opportunity is made available yearly through a published federal Notice of Funding Opportunity usually in late summer or early fall. Applicants may need to work through their State Emergency Management Agency for eligibility and submission as a sub-applicant of the state. This state process has earlier pre-application submission deadlines than the full BRIC / HMGP federal application.

BRIC / HMGP is a two-step process with potential state pre-applications and eventual federal application. The federal application can be a lengthy and more complex application. A Benefit Cost Analysis (BCA) is required and generally requires an economist familiar with the criteria specific for FEMA projects. Projects must have a greater than 1 BCA to be fundable and competitive.

See the Water System Improvements, Public Works, and Spit Erosion analyses for more on BRIC / HMGP.

Bundling

It is recommended to bundle the Fire Station and Public Works projects into BRIC / HMGP application and co-locate if possible. The inclusion of the Public Works Building helps address multiple community “lifelines”[2] such as resiliency of transportation, water, or communication, that are criteria for FEMA funding. It would not be deemed shovel ready until the site is determined. A non-bundled application may not be competitive for BRIC / HMGP due to the program’s overall competitiveness.

Project Development

To increase competitiveness, the City of Homer should review the potential of completing the site feasibility and acquisition process prior to any funding requests. While acquisition can be an eligible activity under many grants, it can offer unknown time and costs, making the project less shovel ready and competitive. Additionally, there may be restrictions on purchasing procedures using state and federal funds for acquisition.

Potential State Funding

This project may be a good candidate for a portion of state funding, since it may impact both local and state firefighting resources.

[2] https://ready.alaska.gov/Mitigation/PDMP

Schedule of Activities and Funding and Match Plan

The multi-project activity and match plan outlines a workplan associated with applying for grant programs listed above and potential revenues and expenditures by year.

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Homer Harbor Improvements: System 4 Float Replacement and Other Harbor-Related Improvements

Contents

Overview

General Approach

A multi-year application approach for projects that contribute to harbor improvements will allow for Homer to apply for design and construction funds for harbor projects through traditional funding sources like the Port Infrastructure Development Program (PIDP). Nationally Significant Federal Lands and Tribal Projects (NSFLTP) may be an additional funding source to develop. Financing through the Transportation Infrastructure Finance and Innovation Act (TIFIA) can assist

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in securing project funding. Due to the size of the projects, pursuing additional financing and State of Alaska and direct Congressional spending can assist with covering projects and match costs.

Project Scope

Funding recommendations below cover a range of harbor-related projects listed in **Table 1** that improve harbor operations or improve economic benefit of harbor projects. Projects are detailed in the CIP.

Table 1 Projects Reviewed for This Set of Recommendations

Project Name	CIP Page #
Homer Harbor System 4 Float Replacement	6
New Large Vessel Harbor	2
Homer Spit Coastal Erosion Mitigation	9
Ice Plant Upgrade	27
Steel Grid Repair	29
Wood Grid Replacement	30
Homer Harbor Security Cameras at Ramp 1-5 Access Points	26
Large Vessel Sling Lift, Phase 1	28
Barge Mooring &Large Vessel Haul Out Repair Facility	23

Federal Funding Recommendations

Port Infrastructure Development Program

A PIDP[1] application in FY 2023 is suggested.

The PIDP program is broadly focused on creating a stronger and more resilient supply chain for the nation and projects that improve efficiency and economics of freight movement and the essential economic role of ports in regional and national transportation systems. In other words,

[1] https://www.maritime.dot.gov/PIDPgrants

competitive PIDP projects provide "resilient transportation and logistics supply chains that move goods to the American people, bring industry home, and effectively support imports and exports."

Eligible projects improve the safety, efficiency, and reliability of the loading and unloading of goods at the port; the movement of goods into, out of, around, or within a port; operational improvements, including projects to improve port resilience; and environmental and emissions mitigation measures.

PIDP has two application categories. Definitions of these are:

- Small port: A coastal seaport, Great Lakes, or inland river port to and from which the average annual tonnage of cargo for the immediately preceding 3 calendar years from the time an application is submitted is less than 8,000,000 short tons, as determined using U.S. Army Corps of Engineers data or data provided by an independent audit the findings of which are acceptable to the Secretary. For joint applications, U.S. Department of Transportation (USDOT) will use the status of the lead (eligible) applicant when determining whether the project is for a small port.
- Small project at a small port: A project at a small port seeking less than or equal to $11.25 million in funding under 46 U.S.C. 54301(b).

While large project applications are expected to require a benefit cost analysis (BCA), small projects at small ports do not require a BCA. Average 2022 grant awards[2] for small projects were in the $4-8 million range.

In 2022, USDOT removed BCA requirements for all Alaska projects. This exemption is not expected to continue into following years. If it does, however, it will open options for a larger project bundle of harbor projects or make the New Large Vessel Harbor potentially competitive for PIDP.

Under the USDOT-used definitions in the 2022 PIDP program, Homer is classified as a rural area. A 20% match is required and projects offering a higher match will score better. A 30% match is recommended.

PIDP merit criteria are focused on Achieving Safety, Efficiency, or Reliability Improvements; Supporting Economic Vitality at the Regional or National Level; Addressing Climate Change and Environmental Justice Impacts; Advancing Equity and Opportunity for All; Leveraging Federal Funding to Attract Non-Federal Sources of Infrastructure Investment; and Project Readiness.

[2] https://cms.marad.dot.gov/sites/marad.dot.gov/files/2022-10/FY%202022%20Port%20Infrastructure%20Development%20Grant%20Awards.pdf

The Homer Harbor System 4 Float Replacement is a strong candidate for the PIDP program. The project addresses these criteria through its connections to disadvantaged and minority communities who will suffer disproportionally from climate change impacts (and thus require stronger transportation system resiliency) and essential shipping commercial fishing industry activities. The Homer Harbor Security Cameras at Ramp 1-5 Access Points project may be included to address PIDP security and innovation criteria.

Given the high cost of the float replacement project, project scalability is recommended.

Rural Surface Transportation Grant Program

A secondary grant program target is the Rural Surface Transportation Grant Program[3] (Rural). This program supports projects to improve and expand the surface transportation infrastructure in rural areas to increase connectivity, improve the safety and reliability of the movement of people and freight, and generate regional economic growth and improve quality of life.

Applications will be evaluated based on several criteria, including project readiness, cost-effectiveness, and whether the project supported critical goals like enhancing safety, increasing mobility and reliability, improving resiliency, and restoring infrastructure to a state of good repair.

Themes to highlight in a Rural application include connections to disadvantaged communities; resiliency of essential maritime transportation networks; overall coastal inundation /storm, etc. climate resiliency; and explanation of all the economic activities happening in that one area.

Rural offers Homer's harbor-related projects a different approach to bundling than does PIDP.

Table 1 above outlines projects to potentially include in a Rural construction grant application. Adding components of the Spit Coastal Erosion Mitigation, Ice Plant, Steel and Wood Grid Replacements, and the Barge Mooring & Large Vessel Haul Out Repair Facility projects will address environmental contamination concerns in the harbor and increase the local and regional economic benefits of the project. These will also increase the project cost, but Rural projects can be larger in award.

See the Homer Spit Mitigation project analysis for another Rural application recommendation that can be combined with highest priority harbor projects.

Select projects for the Rural application primarily based on impact to BCA. Consider also strategic decisions around maximum award requested, potential state or private funding for smaller projects, and available match.

[3] https://www.transportation.gov/grants/rural-surface-transportation-grant

Keeping in mind timing associated with USACE determinations on beach renourishment locations, and potential PIDP-related harbor work, it is recommended that Homer pursues a Rural application for 2024 or 2025.

Nationally Significant Federal Lands and Tribal Projects Program

NSFLTP provides funding for the construction, reconstruction, and rehabilitation of nationally significant projects within, adjacent to, or accessing Federal and tribal lands. The program made available $125.215 million in 2022.

This program seeks projects that:

- Further the goals of DOT, which include safety and the state of good repair;
- Improve the quality of life for a local community and/or the traveling public;
- Improve physical or operational deficiencies of the facility;
- Use new technologies and innovations; and
- Support economic vitality at the national and regional level.

For projects off of tribal lands, USDOT is looking for projects that ensure equitable investment in the needs of underserved communities; Align with FHWA's mission and with priorities such as equity, climate and sustainability, and economic strength and global competitiveness; and Support the creation of good-paying jobs with the free and fair choice to join a union, and the incorporation of strong labor standards and workforce programs.

Local governments may apply for funding under NSFLTP if sponsored by an eligible Federal land management agency (FLMA) or federally recognized Tribe. FLMAs in the Homer area are the National Park Service and United States Fish and Wildlife Service. DOT&PF and FLMAs collaborate in Alaska through TWiG, and they are highly interested in partnering with local governments for project development.

NSFLTP requires a 10% match for non-tribal applications and certain federal funds may be used as match. NEPA must be completed on projects for eligibility under NSFLTP.

This program has uncertain fit for Homer. On one hand, NSLTP is administered by FHWA and has a focus on surface transportation like roads and trails. Additionally, the program seems intended to improve access entry points rather than more distant access departure points. On the other hand, travel to Lake Clark National Preserve, Katmai National Park, Kenai National Wildlife Refuge, and the Alaska Maritime National Refuge requires plane or boat travel and road access is not possible. Homer can make a strong case for the necessity of harbor facilities in park and refuge access.

It is suggested that Homer spend several months networking and collaborating with nearby National Parks, TWiG, and FHWA to determine whether harbor projects are eligible and competitive under NSFLTP.

Due to the NEPA-completion requirement, if eligible, an application for harbor projects could serve to cover funding gaps identified further into the project development process.

Grant recommendations for the Homer Airport Terminal Improvements include the above NSFLTP suggestion. If Homer projects are found to eligible, it may be possible to bundle airport and harbor improvements into one application because both departure points provide essential access to federal lands.

Transportation Infrastructure Finance and Innovation Act

The TIFIA[4] program provides credit assistance for qualified projects of regional and national significance. TIFIA traditionally offers:

- Up to 33 percent of total project costs.
- Low interest rate
- Interest does not accrue until proceeds are drawn
- Flexible amortization
    - Up to 35-year repayment period
    - Deferrable for five years after substantial project completion
- No pre-payment penalty
- Three types of financial assistance:
    - Secured (direct) loan - Provides combined construction and permanent financing of capital costs.
    - Loan guarantee – Focused on borrower's repayments to non-Federal lender.
    - Standby line of credit - Supplement project revenues, if needed, during the first 10 years of project operations

Under the TIFIA Rural Project Initiative, the City of Homer could access loans up to 49% of eligible project costs.

TIFIA Lite offers loans of up to $100 million loan with little to no negotiation with USDOT.

TIFIA financing is often used in conjunction with other Federal grant and other funding programs. The maximum allowable Federal share (funding and financing) of project costs is 80 percent.

The City of Homer should try to maximize grant awards prior to committing to TIFIA financing.

[4] https://www.transportation.gov/buildamerica/financing/tifia

State Funding

It is recommended to continue to apply for State of Alaska Municipal Harbor Facility Grants Program[5] and other non-federal funds for elements of this project package to use awards to provide match for the PIDP. The State program typically opens in the spring and requires a 50% local match. Further, based on the obligation date for the 2022/2023 $366,000 award for cathodes, that project could be included in a 2023 grant application package as match.

Project Development

Historically Disadvantaged Communities

PIDP is awarding roughly 60% of funds to ports in historically disadvantaged communities. Rural also has an equity focus. Homer is newly classified as disadvantaged according to USDOT definitions and port operations impact a large number of Western Alaskan and Alaska Native communities. Gathering political support for the project from disadvantaged communities will assist in addressing equity-related merit criteria.

Economic Benefit

Both the estimated $72.6 million in construction costs for the float replacement and the $303 million new large vessel harbor present high costs for small community projects. It is recommended to look for project components that USDOT can fund independently. This approach can support a small port/small harbor PIDP application in FY23 or another level of a smaller PIDP request.

A joint BCA is suggested for 2023 for harbor-related projects in the existing harbor, associated with the new large vessel harbor, and Spit Erosion Mitigation projects. Analysis of various project combinations will support future grant applications.

Schedule of Activities and Funding and Match Plan

The multi-project activity and match plan outlines a workplan associated with applying for grant programs listed above and potential revenues and expenditures by year.

This spreadsheet offers a program management tool for the City of Homer to use in planning and tracking federal discretionary grant activities and financial obligations.

[5] https://dot.alaska.gov/stwdplng/ports/

City of Homer Hornaday Park Improvements

Contents

Overview

The City's parks facilities serve local populations as well as visitors and tourists. They provide quality-of-life amenities that enhance communities as livable places and show investment in community well-being. The improvements needed are generally in line with normal facility improvements for these facilities.

Project Scope

The existing Hornaday Park is not sufficient to provide safe access for pedestrians, adequate entry and parking, and does not provide adequate basic amenities (restrooms). The City of Homer has prioritized improvements to provide safer pedestrian access and parking areas, as well as installation of new public restrooms. The project would include design and construction of the improvements at an estimated cost of $500,000.

Federal Discretionary Grant Funding Recommendations

A review of federal funding programs compatible with this project provides limited opportunities.

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Land and Water Conservation Fund

The primary federal funding program to consider is the Department of Interior's Land and Water Conservation Fund (LWCF)[1] administered by the Alaska Dept. of Natural Resources. This program matches up well for eligibility, activities proposed, and priority scoring. Drawbacks are the program is competitive within the state, grant funds must be matched dollar for dollar, and the maximum grant is $250,000. For 2022, Alaska had approximately $1.75 million available in the competitive program and projects that much each year through 2026. Advantages are typically manageable application process and reporting. Win strategies focus on accessibility improvements and restroom upgrades.

The window for applications for LWCF is usually in the fall. However, it may be necessary to monitor the program, as funding cycles have varied recently in several states due to Covid. Review periods would be within a couple of months and awards relatively soon thereafter.

The LWCF fund is a competitive state / federal program with approximately 12 or fewer projects funded yearly. Projects should try to match activities with the Statewide Comprehensive Outdoor Recreation Plan[2] to insure competitiveness. The program does have environmental review requirements, including Section 106 review of historic and other resource impacts. The program is typically a reimbursement program as well, so some interim funding may be required for full completion.

Community Development Block Grant

The Community Development Block Grant (CDBG) program is a U.S. Department of Housing & Urban Development HUD) based fund and has provisions for improvements for Americans with Disabilities Act (ADA) accessibility. Traditionally, this program targets improvements that assist low-to-moderate income persons; however, the ADA improvement activities are not restricted to that threshold. Applications for these types of improvements may not be as competitive as traditional projects.

CDBG / HUD provide up to $850,000 in funding but often needs local contribution. The application window for state submissions is open until December.

The CDBG / HUD program can be complex in both application and in implementation, and it may require an administrator with specialized experience. Smaller projects may not be worthwhile given the administrative oversight and requirements.

[1] https://dnr.alaska.gov/parks/grants/lwcf.htm
[2] https://dnr.alaska.gov/parks/plans/scorp/NorthTotheFuture_AlaskasSCORP2016-2021SMALL.pdf

Bundling

While it appears that there may be other similar park / trail facility improvements within the City that align well with this project, the funding sources tend to be small and bundling projects would not necessarily increase competitiveness. Through its Park Planning process, it might be worthwhile to internally prioritize the other improvement projects and develop them as projects for future year applications.

Project Development

To increase competitiveness, the City of Homer should review the potential of completing Park Master Plan and preliminary design. Completing these activities prior to application will increase competitiveness and provide a more reliable cost estimate.

Schedule of Activities and Funding and Match Plan

The multi-project activity and match plan outlines a workplan associated with applying for grant programs listed above and potential revenues and expenditures by year.

This spreadsheet offers a program management tool for the City of Homer to use in planning and tracking federal discretionary grant activities and financial obligations.

Port of Homer – New Large Vessel Harbor

Contents

Overview

Building a new multi-modal large vessel harbor is the City of Homer's top infrastructure development priority. The new large vessel port will support economic development in Alaska by meeting demands of the marine industrial transportation sector and creating jobs. It also addresses navigational safety hazards and advances national security interests by accommodating the layover and repair needs of US Coast Guard ships deployed under the Arctic Security mission. The port will serve 60-100 vessels used in the in the commercial fishing, oil and gas, research, marine transportation, and cargo industries.

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The U.S. Army Corps of Engineers (USACE) is currently undergoing a General Investigation (GI) that will take three years. While this is occurring, it is recommended to conduct a preliminary benefit-cost analysis (BCA) to outline fit with federal grant opportunities and develop response to federal grant merit criteria. The BCA can include a sensitivity analysis to test the BCA with a higher capital cost, if not yet known, and can be adjusted later when the parameters of the project are better known. This BCA can be done together with or separately from the BCA for other port projects and the Spit Erosion Mitigation project.

During this time, the City of Homer might also assess options for other financing strategies. It is not recommended to apply for federal discretionary grants until the GI is completed due to the likelihood for grant programs to prefer demonstrated feasibility and a higher percentage of design and environmental completion.

USACE construction appropriations may be the most likely source of public project funding.

Project Scope

The project will build a new basin with extended breakwaters and moorage for 60-100 large vessels. Total project costs are estimated at $303 million. Federal funds with state and local match are secured for the $3 million USACE GI.

Project Development

This project is in the early planning phases. It is recommended to use 2023 to develop data and analyses to describe project benefits, including economic benefit according to U.S. Department of Transportation's (USDOT) BCA guidance, and port financing attributes, such as structural and operational models, financial factors, debt position, capital plan, management, and business strategy.

Figure 1 lists a variety of types of data useful in economic project evaluations and assessing project competitiveness for grant merit criteria and in financial planning. 2022 USDOT BCA guidance[1] offers a snapshot of types of data and analyses required for BCA.

With an estimated benefit-cost ratio and a financial snapshot, the City of Homer will be better equipped to decide whether to pursue federal discretionary grants or other project financing.

[1] 2022 USDOT BCA Guidance: https://www.transportation.gov/sites/dot.gov/files/2022-03/Benefit%20Cost%20Analysis%20Guidance%202022%20%28Revised%29.pdf. Guidance is expected to change for 2023. Data analysis and calculations are highly site and project specific. Collaboration with an economist familiar with USDOT BCAs will provide the City of Homer with an actionable list of data to gather for BCA.

Figure 1 Examples of Data Used to Evaluate Port Projects for Investment[2]

Strategic	Infrastructure	Operational	Market	Financial
Port Planning Documents	Site Boundaries and Adjacencies	Vessel Statistics	Historical Port Volumes	Life Cycle Costs
Land Use Studies	Facility Configuration Plans	Berth Operating Statistics	Market Forecasts	Revenue
Waterfront and Near - Waterfront Land Ownership Documents	Maps and Aerials of Existing Sites, Facilities and Infrastructure	Yard Operating Statistics	Freight Origins-Destinations Surveys and Statistics	Cost of Capital/ Evaluation Discount Rate
Port Business and Management Documents	Truck and Rail Access, Inland Rail and Highway Networks	Equipment Inventory	Customer Leases/Contracts	Asset Depreciation
Regional Economic and Business Data	Inspection/ Condition Assessment Surveys and Reports	Equipment Deployment Patterns and Productivities	Competitor Port Documents	Tariffs
Transportation Plans and Improvement Program Documents	Waterside Access	Labor Deployment Patterns	Carrier Schedules, Capacity and Fleet Sizes	Macroeconomic Forecasts (Consumer Price Index & Interest Rates)
State/Local Freight Plans	Environmental Site Assessment Reports	Labor agreements		Contracting Requirements

Project scope should likewise be evaluated for ways to improve grant competitiveness. For example, shore power projects are attracting White House attention and funds are available for electrification projects. If electrification is needed, the City of Homer could seek stand-alone funding for electrification. Additionally, calculations of the benefits of electrification[3] as part of a bigger project can assist that project in meeting grant environmental and climate change merit criteria.

Economic benefit, improvements to freight movement and reliability, national security, and resiliency are key themes for this project to develop to maximize grant competitiveness.

Federal Discretionary Grant Funding Recommendations

Port Infrastructure Development Program (PIDP)

This project is eligible for PIDP[4]. Average 2022 PIDP grant awards[5] are much smaller than total cost for the New Large Vessel Harbor. Alaska had four 2022 PIDP wins, including the largest project

[2] https://cms.marad.dot.gov/sites/marad.dot.gov/files/2020-10/General%20Projects%20Module%202019.pdf, Page. 1.3.

[3] https://www.epa.gov/ports-initiative/shore-power-technology-assessment-us-ports

[4] https://www.maritime.dot.gov/PIDPgrants

[5] https://cms.marad.dot.gov/sites/marad.dot.gov/files/2022-10/FY%202022%20Port%20Infrastructure%20Development%20Grant%20Awards.pdf

awarded. Awards for planning projects were rare. A grant request of $8-20 million appears in the ballpark of 2022 PIDP awards that are components of larger projects.

While the project speaks to grant program merit criteria related to resiliency factors and regional and state economic benefit including value to the USCG, project evaluation for PIDP includes a BCA. In 2022, the Maritime Administration (MARAD) removed BCA requirements for all Alaska projects. This exemption is not expected to continue into following years. If it does, however, the New Large Vessel Harbor could be a strong PIDP candidate even without a positive BCR.

MEGA and INFRA

The National Infrastructure Project Assistance program (Mega) and Nationally Significant Multimodal Freight & Highway Projects (INFRA) are two grant programs grouped under the Multimodal Project Discretionary Grant Opportunity (MPDG)[6].

Mega will support large, complex projects that are difficult to fund by other means and likely to generate national or regional economic, mobility, or safety benefits. Eligible projects for Mega include a freight intermodal (including public ports) or freight rail project that provides a public benefit.

INFRA awards competitive grants for multimodal freight and highway projects of national or regional significance to improve the safety, efficiency, and reliability of the movement of freight and people in and across rural and urban areas. Eligible INFRA projects are ones that improve safety, generate economic benefits, reduce congestion, enhance resiliency, and hold the greatest promise to eliminate freight bottlenecks and improve critical freight movements.

Projects should have received or have substantially completed all Federal, State, and local permits and approvals, including National Environmental Policy Act (NEPA) analysis, at the time a Mega or INFRA application is submitted.

Positive economic benefit demonstrated in a BCA is required by both Mega and INFRA. The New Vessel Harbor will have to demonstrate significant data-substantiated freight improvements to be competitive for Mega and INFRA.

Once a preliminary BCA for the project is completed, the City of Homer can decide whether to progress to a full BCA and apply to Mega and INFRA.

[6] https://www.transportation.gov/grants/mpdg-announcement

Rural Development (RD) Community Facilities Direct Loan and Grant program

The primary federal funding program to consider is U.S Department of Agriculture's Rural Development (RD) Community Facilities Direct Loan and Grant program[7]. This program matches up well for eligibility, activities proposed, and priority scoring. Drawbacks are the program is competitive within the state, grant funds are limited (35% maximum based upon local demographics) and are usually combined with loan funding. Advantages are flexible activity usages, low interest rate loans (currently 3.5%) with up to 40-year terms, standardized application process with no Benefit Cost Analysis.

The RD Community Facilities Loan and Grant Program has an open window for applications. However, since RD receives annual program allocations on a federal budget year (Oct. – Sept.) and projects are funneled through on a first come-first served basis, projects submitted late in the budget cycle may be pushed to the next year.

The RD Community Facilities program has limited total funding for Alaska. Most projects do not exceed $5 million. The program can not fully fund the project, so it is recommended to discuss funding strategies with RD state staff. Rural Development programs are somewhat on the low end of federal strings and regulations; however, there are a few items to be aware of. The program will require coordination with an architect and RD's architect engineering team to assure adherence to appropriate design standards. Projects with loan funds will require a bond counsel for closing the loan (fees can be included in loan). When loan funds are used, they typically must be used first and grant funds last.

Economic Development Administration's Public Works / Economic Adjustment Program

The project could also potentially be eligible under the Economic Development Administration's (EDA) Public Works / Economic Adjustment program since it serves the community's primary economic district. Grants can address infrastructure needs to facilitate new or expanding business/industry and job creation or retention are vital to grant success. Competitive applications generally need to make the case that they are in "economically distressed areas" and that the project will contribute to new jobs or saving existing jobs. This may be difficult to establish without a private commercial /industrial partner willing to commit to providing new jobs or saving jobs and private investment. The program also requires matching funds and private investment[8]. The EDA application is an open window submission with quarterly review as funds are available.

[7] https://www.rd.usda.gov/programs-services/community-facilities/community-facilities-direct-loan-grant-program/ak

[8] https://eda.gov/pdf/about/Public-Works-Program-1-Pager.pdf

EDA usually offers up to 50% with the remainder of project costs covered by match and "private investment" from a local benefitting employer. In some cases, up to 80% is covered. A local company that will add or save employment because of the EDA investment needs to be identified.

Other Federal Grant Sources

As scope develops, the City of Homer can look to multiple sources for funding. In addition to the major grant and financing programs below, the City could consider the following for specialized components of port operations.

- EPA has a suite of grant programs aimed at pollution prevention, reduction, and elimination.
- U.S. Department of Energy has programs for electrification, reduction of fossil fuel use, innovative transportation technologies, energy storage, and vehicle/freight efficiency.
- U.S. Department of Homeland Security's Port Security Program supports maritime security risk management.

Other Financing Strategies

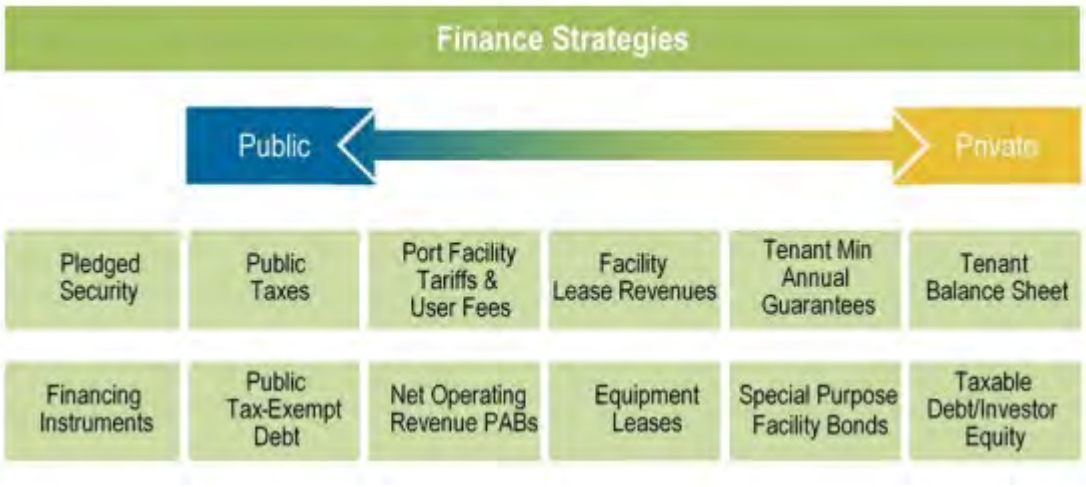
A variety of port financing strategies exist. For example, USDOT Private Activity Bonds provide debt financing for private projects that are developed for a public purpose.

Evaluation is beyond the scope of the federal discretionary grant analysis however detailed examination of financing options is recommended.

MARAD produced a Port Planning and Investment Toolkit for General Port Projects[9] which outlines project development steps and financing options. While the toolkit is somewhat outdated, it contains useful guidance for planning, funding, and constructing a port project. **Figure 2**, from MARAD, lists potential sources of port funding.

[9] https://cms.marad.dot.gov/sites/marad.dot.gov/files/2020-10/General%20Projects%20Module%202019.pdf

Figure 2 Examples of Port Financing Options[10]



USACE Construction

Annual U.S. Army Corps of Engineers (USACE) construction budgets include projects similar in scope and scale to the New Large Vessel Harbor project. USACE-funded projects are suggested by USACE field offices early in the year and are subject to congressional approval[11]. During the GI, it is recommended to continue to advocate with Alaska's Congressional Delegation and USACE representatives for full project funding through USACE.

Depending on project BCA results, USACE may be the most likely source of public project funding.

Transportation Infrastructure Finance and Innovation Act

The Transportation Infrastructure Finance and Innovation Act[12] (TIFIA) program provides credit assistance for qualified projects of regional and national significance. TIFIA traditionally offers:

- Up to 33 percent of total project costs.
- Low interest rate
- Interest does not accrue until proceeds are drawn
- Flexible amortization
    - Up to 35-year repayment period
    - Deferrable for five years after substantial project completion

[10] Ibid, Page 3.15.
[11] https://www.usace.army.mil/Portals/2/Images/Civil%20Works/Budget/Budget-Cycle.png?ver=zC1UWMkys1lRzVY6f6UeBQ%3d%3d. Listen to a summary of the USACE budget process description: https://www.dvidshub.net/audio/70978/inside-castle-talks-usace-budget-processmp3
[12] https://www.transportation.gov/buildamerica/financing/tifia

- No pre-payment penalty
- Three types of financial assistance:
    - Secured (direct) loan - Provides combined construction and permanent financing of capital costs.
    - Loan guarantee – Focused on borrower's repayments to non-Federal lender.
    - Standby line of credit - Supplement project revenues, if needed, during the first 10 years of project operations

Under the TIFIA Rural Project Initiative, the City of Homer could access loans up to 49% of eligible project costs.

TIFIA Lite offers loans of up to $100 million loan with little to no negotiation with USDOT.

TIFIA financing is often used in conjunction with other Federal grant and other funding programs. The maximum allowable Federal share (funding and financing) of project costs is 80 percent.

The City of Homer should try to maximize grant awards prior to committing to TIFIA financing.

Schedule of Activities and Funding and Match Plan

The multi-project activity and match plan outlines a workplan associated with applying for grant programs listed above and potential revenues and expenditures by year.

This spreadsheet offers a program management tool for the City of Homer to use in planning and tracking federal discretionary grant activities and financial obligations.

Homer Public Works Facility

Contents

Overview

The Public Works Facility is an essential component of day-to day-operations and maintenance for the City of Homer, and it serves as a critical resource to assist in response to emergency operations. Traditionally, these types of local facilities have been locally funded and supported with few direct outside funding opportunities. Federal and state funding has been geared towards emergency preparedness for these important services. Considering this scenario, a combination of funding resources may need to be investigated to fund these types of requests since no single source may be fully capable of financing the project.

Project development is necessary to advance this project's grant readiness.

Project Scope

The existing facility is not sufficient to provide adequate operations and is potentially at risk from natural hazards like tsunami and coastal flooding. The City of Homer has prioritized the development of a new facility that would be adequate in size and hardened from potential natural disaster events. Acquisition of a new site for the facility will be necessary and is an unknown time and cost factor. The project would include site feasibility for a minimum 4.6-acre site, design, and construction of a larger and more protected facility at an estimated cost of $12 million.

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Federal Discretionary Grant Funding Recommendations

A review of federal funding programs compatible with this project leads to a limited field. Recommended funding sources are identical to those identified for the Fire Station.

Rural Development (RD) Community Facilities Direct Loan and Grant program

The primary federal funding program to consider is U.S. Department of Agriculture's (USDA) Rural Development (RD) Community Facilities Direct Loan and Grant program[1]. This program matches up well for eligibility, activities proposed, and priority scoring. Drawbacks are the program is competitive within the state and grant funds are limited (35% maximum based upon local demographics) and are usually combined with loan funding. Advantages are flexible activity usages, low interest rate loans (currently 3.5%) with up to 40-year terms, and a standardized application process with no Benefit Cost Analysis.

The RD Community Facilities Loan and Grant Program has an open window for applications. However, since RD receives annual program allocations on a federal budget year (October through September) and projects are funneled through on a first come-first served basis, projects submitted late in the budget cycle may be pushed to the next year.

The RD Community Facilities program has limited total funding for Alaska. Most projects do not exceed $5 million. It may be difficult for the program to fully fund the project, so it is recommended to discuss with RD state staff to determine any funding caps or strategies. Rural Development programs are somewhat on the low end of federal strings and regulations; however, there are a few items to be aware of. The program will require coordination with an architect and RD's architect and engineering team to assure adherence to appropriate design standards. Projects with loan funds will require a bond counsel for closing the loan (fees can be included in loan). When loan funds are used, they typically must be used first and grant funds last.

Federal Emergency Management Agency (FEMA) Funding

Secondarily, the FEMA Building Resilient Infrastructure and Communities grant program / Hazard Mitigation Grant Program (BRIC / HMGP) [2] may be a potential source when the Public Works facility combined with a new fire station building and if an adequate site for co-location could be found out of tsunami zone and within acceptable accessibility to main routes and run times.

The program is directed towards helping communities build infrastructure that is resilient to identified natural hazard risks like tsunami inundation and coastal flooding. The advantages of the program are that it can fund large scale, high dollar projects and can provide up to 75% grant (13% state / 12% local match) and targets emergency preparedness. These programs are not an ideal

[1] https://www.rd.usda.gov/programs-services/community-facilities/community-facilities-direct-loan-grant-program/ak
[2] https://ready.alaska.gov/Mitigation

match for the Fire Station project right now, since they favor projects that are shovel ready and address multiple community “lifelines” such as resiliency of transportation, water, or communication.

The BRIC / HMGP opportunity is made available yearly through a published federal Notice of Funding Opportunity usually in late summer or early fall. Applicants may need to work through their State Emergency Management Agency for eligibility and submission as a sub-applicant of the state. This state process may have earlier pre-application submission deadlines than the full BRIC / HMGP federal application.

BRIC/ HMGP is a two-step process with potential state pre-applications and eventual federal application. The federal application can be a lengthy and more complex application. A Benefit Cost Analysis is required and generally requires an economist familiar with the criteria specific for FEMA projects. Projects must have a greater than 1 BCA to be fundable and competitive.

Additionally, these programs must comply with several federal regulations, including: NEPA environmental evaluations, Prevailing Wages, Disadvantaged Business Enterprise procurement, American Iron & Steel, and Buy American, Build America materials. These may impact project costs in a significant way.

See the Fire Station, Water System Improvements, and Spit Erosion analyses for more on BRIC / HMGP.

Bundling

It is recommended to bundle the Fire Station and Public Works projects into BRIC/ HMGP application and co-locate if possible. The inclusion of the Fire Station helps address multiple community “lifelines” such as resiliency of transportation, water, or communication, that are criteria for FEMA funding. It would not be deemed shovel ready until the site is determined. A non-bundled application may not be competitive for BRIC / HMGP due to the program’s overall competitiveness.

Project Development

To increase competitiveness, the City of Homer should review the potential of completing the site feasibility and acquisition process prior to any funding requests. While acquisition can be an eligible activity under many grants, it can be a prohibitive factor in unknown time and costs, making the project less shovel ready and competitive. Additionally, there may be restrictions on purchasing procedures using state / federal funds for acquisition.

Potential State Funding

This project may be a good candidate for a portion of state funding, since it may impact both local and state firefighting resources.

Schedule of Activities and Funding and Match Plan

The multi-project activity and match plan outlines a workplan associated with applying for grant programs listed above and potential revenues and expenditures by year.

This spreadsheet offers a program management tool for the City of Homer to use in planning and tracking federal discretionary grant activities and financial obligations.

Resiliency Group Projects

Contents

Overview

The City of Homer has several projects that address a common goal of resiliency in the face of natural disaster or climate change. It may be advantageous to look at bundling them in a larger request for a program like Building Resilient Infrastructure and Communities (BRIC) under the Federal Emergency Management Agency (FEMA), and U.S. Department of Transportation's (USDOT) Rural Surface Transportation Grant Program (Rural) and Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation (PROTECT) programs. Because these programs generally look for larger impact and require a Benefit Cost Analysis, smaller projects are generally not cost-effective.

Thematic Bundling

Projects listed in **Tables 1** and **2** below should be considered for any program with a resiliency focus. One grouping of projects can address the Fire Station and the Public Works Building as critical emergency response facilities in the case of a natural disaster (tsunami, coastal flood, seismic event, wildfire, etc.). Another grouping of projects would address the Spit for securing critical transportation assets.

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The Homer Airport Terminal Improvements – Resilience Measures – Backup generator for emergency power and solar installation ($305,000) can be added to either project bundle.

Improving Critical Assets - PROTECT

The Spit Erosion and associated improvements could be a potential group of projects (Coastal erosion, Spit water main lining, Beluga Lift Station, potentially the Small Harbor dredging) that meet a resiliency goal, especially if they are framed as hardening and protecting critical assets that serve the community in hazard situations. If the community receives approval of funding for the Spit Erosion study / U.S. Army Corps of Engineers (USACE) General Investigation (GI) and the USACE recommends the improvements, the related-listed projects above could proceed as a bundle in several years.

Table 1 Projects for PROTECT Application

Project Name	CIP Page #
Homer Spit Coastal Erosion Mitigation	9
Beluga Sewage Lift Station	34
Raw Water Transmission Main Replacement	39
Water Storage/Distribution Improvements, Phase 3	41
Homer Harbor Dredging – for Spit nourishment	25

Emergency Response - BRIC

The resiliency component lends itself readily to projects that are protecting lives and critical infrastructure or property. The fire station and public works building relocation out of the tsunami zone and to a more stable and protected location, grouped as Emergency and Public Safety Improvements, could be compelling.

This project grouping may require the addition of or accentuated activities designed to “harden” or reduce damage to these critical facilities to truly be competitive. Examples include constructing the fire station & public works facility with increased seismic protection or including the projects with the above PROTECT bundle due to its essential role if nearby harbors are damaged by disasters.

Table 2 Projects for BRIC Application

Project Name	CIP Page #
New Public Works Facility	7
Homer Fire Hall Expansion	10

Project Development

If the fire station and public works facility could be co-located on a viable site, and that site can be acquired, it would potentially make the project much more competitive and fundable. Without the site, the project would be less attractive as programs typically don't like the unknowns of acquisition in terms of timing and availability.

Prospects for the Spit Erosion Mitigation project may be somewhat tempered by the USACE GI and recommendations that would come from it. Timing may be the important consideration for this project and might result in looking at it from a multi-year planning perspective.

Federal Discretionary Grants Related to Resilience

PROTECT

The Bipartisan Infrastructure Law established the PROTECT program[1] to help make surface transportation more resilient to natural hazards, including climate change, sea level rise, flooding, extreme weather events, and other natural disasters through support of planning activities, resilience improvements, community resilience and evacuation routes, and at-risk coastal infrastructure. The PROTECT project bundle listed above should be competitive. See the separate Spit Erosion and Harbor project analyses for more details.

Building Resilient Infrastructure and Communities (BRIC)

BRIC[2] will support states, local communities, tribes and territories as they undertake hazard mitigation projects, reducing the risks they face from disasters and natural hazards. The BRIC program requires a substantial application process, including a Benefit Cost Analysis. Individual components may be farther along in planning, design, and targeted implementation than others and that may complicate an application next year. The BRIC project bundle listed above could be competitive for BRIC. See the separate Fire Station and Public Works analyses for more details.

Rural

The Rural[3] program will support projects to improve and expand the surface transportation infrastructure in rural areas to increase connectivity, improve the safety and reliability of the movement of people and freight, and generate regional economic growth and improve quality of life. Projects should have received or have substantially completed all Federal, State and local

[1] https://www.fhwa.dot.gov/bipartisan-infrastructure-law/protect_fact_sheet.cfm
[2] https://www.fema.gov/grants/mitigation/building-resilient-infrastructure-communities
[3] https://www.transportation.gov/grants/rural-surface-transportation-grant

permits and approvals, including National Environmental Policy Act analysis, at the time the application is submitted. The Spit erosion and small harbor dredging would qualify for a Rural application package. See the separate Spit Erosion and Harbor project analyses for more details. A Rural application requires a BCA.

Schedule of Activities and Funding and Match Plan

Activities and costs associated with the BRIC application are listed in the Fire Station project analysis. PROTECT and Rural activities and costs are detailed in the Homer Spit Erosion Mitigation and Harbor project analyses.

The multi-project activity and match plan outlines a workplan associated with applying for grant programs listed above and potential revenues and expenditures by year.

This spreadsheet offers a program management tool for the City of Homer to use in planning and tracking federal discretionary grant activities and financial obligations.

Roadway Operational Improvements

Contents

Overview

This project focuses on addressing roadway operations challenges along Ocean Drive, Kachemak Drive, and Homer Spit Road. These deficiencies in the existing network present safety concerns for bicyclists and pedestrians. They also create excess delay for vehicular traffic, which results in surplus greenhouse gas emissions and limited economic activity. Because the relevant roadways are all under the jurisdiction of the Alaska Department of Transportation and Public Facilities (DOT&PF), the primary recommendation is advancing a project that has robust local support and could be a candidate for grant applications submitted by DOT&PF. The Rural Surface Transportation Grant Program (Rural), which is made available as part of the Multimodal Project Discretionary Grant opportunity, is likely the best fit.

The City of Homer has identified several existing issues on these major roadways, including vehicles using bike lanes on Ocean Drive to avoid turning traffic. Additionally, Kachemak Drive does not have sidewalks or any other non-motorized facilities, presenting safety and operational

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hazards. All three roadway segments identified in this recommendation are owned and operated by DOT&PF.

Project Scope

The Roadway Operational Improvement project is most clearly articulated in the City of Homer's Capital Improvement Plan (CIP) as a long-term effort to reconstruct Ocean Drive. **Table 1** includes projects to group together to achieve a federal funding-scaled request.

Table 1 Projects to Include in Roadway Operational Improvements

Project Name	CIP Page #
Ocean Drive Reconstruction with Turn Lane	59
Kachemak Drive Non-Motorized Pathway (State)	46
Slope Stability - Kachemak Drive Wetland Treatment System	3
Wayfinding & Streetscape Plan Implementation	42
Parking on the Spit	n/a

Federal Discretionary Grant Funding Recommendations

A review of federal funding programs compatible with this project leads to a limited field of opportunities. Options are similar to those available for the City-Wide Sidewalks Non-Motorized Improvements project grouping.

Rural Surface Transportation Program

The Rural program[1] will support projects to improve and expand the surface transportation infrastructure in rural areas to increase connectivity, improve the safety and reliability of the movement of people and freight, and generate regional economic growth and improve quality of life.

Applications will be evaluated based on several criteria, including project readiness, cost-effectiveness, and whether the project supported critical goals like enhancing safety, increasing mobility and reliability, improving resiliency, and restoring infrastructure to a state of good repair.

[1] https://www.transportation.gov/grants/rural-surface-transportation-grant

Rural has strong potential for this project. Themes to highlight in a Rural application include connections to disadvantaged communities; resiliency of essential maritime transportation networks; overall coastal inundation /storm, etc. climate resiliency; and explanation of all the economic activities happening in that one area.

Select projects from **Table 1** for the Rural application primarily based on impact to BCA. Consider also strategic decisions around maximum award requested and available match.

RAISE

The Rebuilding American Infrastructure with Sustainability and Equity (RAISE)[2] program offers broad eligibility and funding potential for this project. Connection to Homer's "main street" and biggest commercial destination (the harbor) make it a compelling set of improvements for RAISE. A BCA is needed.

See the City-Wide Sidewalks Non-Motorized Improvements analysis for more on the RAISE program.

Neighborhood Access and Equity Grants

The Inflation Reduction Act[3] contains $3 billion to fund Neighborhood Access and Equity Grants, a new program that aims to rework overbuilt arterial roads and make them safer and more accessible for various modes of transportation.

See the City-Wide Sidewalks Non-Motorized Improvements analysis for more program details.

There could be a strong argument for local access issues if these operational improvements include, for example, helping children get to school across busy streets.

Once the grant program opens, evaluate bundling this project for the program with the City-Wide Sidewalks Non-Motorized Improvements.

Safe Streets and Roads for All

Once a Homer or Kenai Peninsula Borough Safe Streets and Roads for All[4] (SS4A)-compliant Action Plan is complete and relevant local projects are included, SS4A funds may be used for project implementation. Projects would need to demonstrate a safety benefit.

[2] https://www.transportation.gov/RAISEgrants
[3] https://www.hdrinc.com/insights/advisory-services-snapshot-inflation-reduction-act-direct-investments-infrastructure
[4] https://www.transportation.gov/grants/SS4A

Recipients are required to contribute a local matching share of no less than 20 percent of eligible activity costs. All matching funds must be from non-Federal sources, which could include in-kind contributions, funding from the applicant, or other SS4A-eligible non-Federal sources[5] partnering with the applicant.

Steps to develop projects for SS4A include:

1. Add projects to area or local safety plans that meet SS4A requirements.
2. Delineate project safety risks and benefits, including further analysis of existing crash data and/or new data collection.

Projects in the City-Wide Sidewalks Non-Motorized Improvements could be bundled with these projects for a SS4A grant application.

Strengthening Mobility and Revolutionizing Transportation (SMART) Grants Program

The SMART[6] program focuses on projects to advance smart city or community technologies and systems to improve transportation efficiency and safety. U.S. Department of Transportation is looking to fund projects that solve real-world challenges by using technology interventions while building data, technology capacity and expertise in the public sector.

See the City-Wide Sidewalks Non-Motorized Improvements analysis for more program details.

If Homer were to include SMART-eligible components in the Roadway Operational Improvements project, SMART would be a viable secondary funding source. Examples include collecting and reporting real-time data for everyday transportation related operations and performance purposes with the use of intelligent infrastructure.

State-Administered Formula Funding Opportunities

DOT&PF Community Transportation Program (CTP)

Examples of competitive CTP projects would be ones that make new or maintain or improve existing surface transportation facilities, enhance travel and tourism, reduce wildlife-vehicle collisions, improve air quality, and projects that connect different types of transportation such as roads and trails.

[5] https://www.transportation.gov/sites/dot.gov/files/2022-08/SS4A-Match-and-Cost-Share-Examples_2.pdf
[6] https://www.transportation.gov/grants/SMART

Bundling

Because the project might ultimately be led by the DOT&PF, bundling opportunities could be part of roadway improvements in the region outside Homer city limits. Conversations with state planners and peer agencies within the Kenai Peninsula Borough could help to identify a broader set of roadway improvements that could improve the return on investment in pursuit of federal grant funds.

Schedule of Activities and Funding and Match Plan

The multi-project activity and match plan outlines a workplan associated with applying for grant programs listed above and potential revenues and expenditures by year.

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To avoid double counting grant applications, SS4A and SMART application activities are included with projects in the City-Wide Sidewalks Non-Motorized Improvements schedule of activities.

Homer Slope Stability / Storm Water Erosion Project

Contents

Overview

The City of Homer provides stormwater controls for runoff in public areas. Excessive or uncontrolled stormwater runoff can have damaging effects leading to erosion and unstable land, poor local water quality, and harm to sensitive environments and habitats. Adequate storage and passive treatment systems serve the entire community and protect critical land features and aquatic habitats. These types of stormwater projects are generally funded through general revenue or public works budgets. Some communities are enacting stormwater utility districts and assessing fees and controls on existing and future development. While often necessary for maintenance of facilities, it proves difficult to enact for new structures.

The present stormwater conveyance, storage, and treatment are inadequate in dealing with all the effects of stormwater drainage in the community. The addition of directed stormwater control features like drainage facilities to natural recharge areas can be highly beneficial for the reduction of erosion on unstable soils and coastal areas and provide more natural and resilient protection to aquatic habitats. Especially sensitive bays and coastal regions with endangered or threatened aquatic species can benefit greatly from reduced non-point pollution. The project would control stormwater runoff and provide connection to and preservation of natural recharge areas within

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the community. Additional drainage control features, such as culvert piping, can add resilience in the face of known erosion risk to the sensitive coastal area of Homer.

General Approach

Considering this scenario, projects providing protection to coastal areas and habitats and enhancing resiliency to climate change may be eligible for National Oceanic and Atmospheric Administration (NOAA) programs. Currently two programs may be available to support in funding improvements to coastal infrastructure facilities like stormwater controls and habitat preservation easements or developments. The National Oceans and Coastal Security[1] program is designed to support projects that protect, restore, and strengthen natural infrastructure to protect communities and habitats susceptible to climate change effects. It received additional funding under the Infrastructure Investment and Jobs Act (IIJA) for five years. Additionally, NOAA's Habitat Restoration Grant Program[2] has two tracks that may offer greater compatibility with programming needs.

Homer General Fund / Land Reserve Fund monies allocated to the project can serve as match for some federal grant projects.

Project Scope

The City of Homer has prioritized the development of several stormwater control and preservation of natural wetland recharge areas to reduce erosion and protect critical local habitats. The project has completed a portion of water quality review and design for a portion of the system (Kachemak Drive Wetland). Additionally, a local non-profit is participating and has begun working with the City of Homer to secure additional funding from NOAA. The estimated cost of the project ranges from $5.3 million to $8.1 million.

Due to the multi-project focus on stormwater control, several projects are recommended for bundling into an application. **Table 1** lists projects evaluated for bundling.

Table 1 Projects to Include in Slope Stability Applications

Project Name	CIP Page #
Kachemak Dr. Wetland	4
Baycrest Storm Drain Conveyance	4
Beluga Lake Wetland	4
Beluga Slough Wetland	4

[1] https://www.noaa.gov/infrastructure-law/infrastructure-law-climate-ready-coasts/national-oceans-and-coastal-security-fund

[2] https://www.noaa.gov/infrastructure-law/infrastructure-law-climate-ready-coasts/habitat-restoration

Federal Discretionary Grant Funding Recommendations

A review of federal funding programs compatible with this project includes the mainstream wastewater / stormwater programs as well as fund sources associated with stormwater management, habitat enhancement, and resiliency.

Oceans and Security Fund Program

Habitat Restoration Program

The project appears to have strong compatibility with NOAA's Oceans and Security Fund Program[3] and Habitat Restoration Programs[4]. The projects align well with both program goals of addressing protective measures of coastal areas and habitats.

The NOAA Oceans and Security Fund program has an annual notice for funding opportunity (NOFO), usually issued in the spring around April. The program will have $492 million in funding over the next five years from the IIJA.

The Habitat Restoration Program from NOAA has up to $85 million available for Transformational Habitat Restoration and Coastal Resilience Grants. It recently closed its current application cycle in September and is expected to have additional funding under the IIJA.

There may be some opportunity to bundle all the projects listed above as one request to the NOAA programs. The combined project impact would be sufficient to warrant inclusion of them all as a comprehensive project addressing the needs of the community and coastal resources.

The NOAA programs may require considerable effort and usually require a Benefit Cost Analysis. Therefore, they are primarily recommended for large projects with considerable impacts. The NOAA programs also involve considerable federal regulations including environmental reviews which may be lengthy.

The Habitat Restoration Program appears to be more feasible although it may be equally competitive.

NOFO publications are anticipated for summer 2023.

[3] https://www.noaa.gov/infrastructure-law/infrastructure-law-climate-ready-coasts/national-oceans-and-coastal-security-fund

[4] https://www.noaa.gov/infrastructure-law/infrastructure-law-climate-ready-coasts/habitat-restoration).

State Funding Sources

Alaska Clean Water State Revolving Fund

The standard federal funding program to consider is the Alaska Clean Water State Revolving Fund[5]. It is traditionally a low interest loan program. The storage improvement project has been included in the FY23 Intended Use Plan list of eligible loan projects. It ranked 30th and is not currently listed within the program funding limits.

The primary recommendation would be to examine current funding opportunity application documents to prepare for a next round application. The community has added the individual projects to the Clean Water State Revolving Fund Intended Use Plan list and the projects are within the fundable list. They did not receive Green reserve funding but a review of qualifying criteria might yield Green reserve funds in future cycles.

Individual projects listed above can be submitted over time as a strategy to keep each CWSRF fund requests within reasonable funding amounts.

Schedule of Activities and Funding and Match Plan

The multi-project activity and match plan outlines a workplan associated with applying for grant programs listed above and potential revenues and expenditures by year.

This spreadsheet offers a program management tool for the City of Homer to use in planning and tracking federal discretionary grant activities and financial obligations.

[5] https://dec.alaska.gov/water/technical-assistance-and-financing/state-revolving-fund/

Homer Spit Erosion Mitigation

Contents

Overview

The Homer Spit is a 4.5-mile-long glacial spit composed of sands and gravel that offers recreational, commercial, industrial, and residential use. Erosion is damaging the Spit and changes in storm patterns are exacerbating damage including with road inundation. Emergency repairs have been conducted in several locations. Erosion threatens private businesses, community camping, trails, and fishing areas, critical infrastructure that supports U.S Coast Guard facilities, the Alaska Marine Highway system, regional commercial marine transportation, the commercial fishing industry, and the marine trades. The road is also an essential tsunami evacuation route. USACE is a key project partner.

Project Scope

The Homer Spit Erosion Mitigation project includes planning and alternatives selection, permitting for beach renourishment and dredged materials management, and construction of revetment and other solutions. Total project cost is $18 million. The project is currently broken into Phase 1

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(USACE Authorization for Beach Renourishment) and Phase 2 (Revetment Engineering & Design). Both phases may be eligible for federal discretionary grants.

Bundling

Two other project components could potentially be included in a Spit Erosion project bundle if the components are eligible activities, strengthen merit criteria, do not delay the main project, and costs are reasonable or offset:

- Dredging the harbor can provide material for beach renourishment.
- The City of Homer has discussed developing a vertical tsunami emergency evacuation shelter nearby.

Federal and State Funding Recommendations

PROTECT

The Infrastructure Investment and Jobs Act established the Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation (PROTECT) Program[1] to help make surface transportation more resilient to natural hazards, including climate change, sea level rise, flooding, extreme weather events, and other natural disasters through support of planning activities, resilience improvements, community resilience and evacuation routes, and at-risk costal infrastructure.

This program includes formula funding to states and discretionary federal grants. Under the PROTECT formula funding, Alaska received $93,101,814 over 5 years with up to 40% designated for constructing new capacity and up to 10% for development phase activities. A project carried out by a State with PROTECT Formula Program funds 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.

While USDOT has not yet released information about this grant program, the Homer Spit Erosion project appears to be a strong candidate for this program.

PROTECT grant details are expected early in 2023. PROTECT funding could cover Phases 1 and 2 of the project. To maximize competitiveness, decisions about project scope and bundling should match estimated award amounts and merit criteria. The tsunami evacuation shelter could strengthen this application unless the cost is high, or readiness is low.

[1] https://www.fhwa.dot.gov/bipartisan-infrastructure-law/protect_fact_sheet.cfm

In the meantime, the City of Homer could approach the State of Alaska Department of Military and Veterans Affairs to discuss the Spit Erosion project for possible PROTECT formula funding.

Rural

A secondary grant program target is the Rural Surface Transportation Grant Program[2] (Rural). This program supports projects to improve and expand the surface transportation infrastructure in rural areas to increase connectivity, improve the safety and reliability of the movement of people and freight, and generate regional economic growth and improve quality of life.

Applications will be evaluated based on several criteria, including project readiness, cost-effectiveness, and whether the project supported critical goals like enhancing safety, increasing mobility and reliability, improving resiliency, and restoring infrastructure to a state of good repair. A benefit cost analysis is required for a Rural application.

The Homer Spit Erosion Mitigation project is likely to score high on resiliency, state of good repair, and several other merit criteria. The project will, however, score low on safety criteria.

Average 2022 Rural grant award amounts are high. Bundling the Spit Erosion project with harbor dredging is possible unless the cost is high, or readiness is low. See the Harbor System 4 Float Replacement project analysis for another Rural application recommendation that can be considered for combination with the Spit Erosion Mitigation application.

Federal Emergency Management Agency (FEMA) Funding

FEMA's Building Resilient Infrastructure and Communities Program[3] (BRIC) funds projects that reduce risk from disasters. The Hazard Mitigation Grant Program[4] (HMGP) mitigate impacts of natural disasters. The Flood Mitigation Assistance reduces repetitive flood damage.

Depending on grant wins in 2023 and 2024, the City of Homer could submit this project to BRIC / HMGP. Other federal discretionary grants listed above are likely to cover a higher percentage of project costs than will BRIC / HMGP.

See the Fire Station, Public Works, and Water System Improvements analyses for more on BRIC / HMGP.

[2] https://www.transportation.gov/grants/rural-surface-transportation-grant
[3] https://www.fema.gov/grants/mitigation/building-resilient-infrastructure-communities
[4] https://ready.alaska.gov/Mitigation

Other Federal Grant Programs with Resiliency Merit Criteria

RAISE

PIDP

Both RAISE and PIDP use resiliency-based merit criteria. The Spit Erosion Mitigation would be a strong addition to project groupings for those grant programs. See analyses for the New Large Vessel Harbor, and Homer Harbor Improvements. The Spit Erosion Mitigation project would be a fair contender for these grant programs on its own, however the City of Homer is recommended to use resiliency-focused fund sources for Spit Mitigation and use RAISE and PIDP for road/sidewalk and port projects.

Project Development

A BCA is needed for Rural and likely for PROTECT. It is recommended to include BCA review of this project within the other BCA conducted for the harbor project groups.

Schedule of Activities and Funding and Match Plan

The multi-project activity and match plan outlines a workplan associated with applying for grant programs listed above and potential revenues and expenditures by year.

This spreadsheet offers a program management tool for the City of Homer to use in planning and tracking federal discretionary grant activities and financial obligations.

Homer Water System Improvements

Contents

Overview

The City of Homer provides potable public water to meet the needs of the community. The water storage and distribution system serves the entire community. Replacements and upgrades are traditionally funded and supported through customer rate reserves; however, this project appears to have a resiliency component. Considering this scenario, projects providing additional resiliency and capacity for critical infrastructure may be candidates for Federal Emergency Management Agency (FEMA) Building Resilient Infrastructure and Communities funding and Hazard Mitigation Grant Program (BRIC / HMGP), as well as the traditional mainstream infrastructure programs.

Project Scope

Water System Improvements

The present water storage and distribution facilities are adequate for a 48-hour supply of potable water. In the case of treatment system failure, due to a disaster, the community may face an inadequate supply beyond 24 hours. Additionally, high level fire suppression needs may arise, and would stress the availability of water. The project would improve the storage capacity and resilience in the face of known disaster risk. The City of Homer has prioritized the construction of up to 1 million in additional storage capacity and associated distribution piping. The project has completed design and would include new construction of a primary 750,000-gallon ground level

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storage tank on the east side of the system and potentially a new 250,000 gallons to serve the west side of the system more adequately. The estimated cost of the project ranges from $7.3 million to $10.5 million.

Raw Water Transmission Line Replacement

The present cast iron lines are aging, inadequately sized, and at risk from seismic damage. They can be improved with new or alternate materials and size design. The project would improve the capacity of the lines and their resilience in the face of known seismic risk. The City of Homer has prioritized the replacement of this 8,800 linear foot transmission line to better protect the community in hazardous seismic conditions. The project would include final design and construction of 8,800 l.f. of HDPE at an estimated cost of $2.2 million.

This project has just completed FEMA Region 10 review for full funding under the HMGP. The City of Homer anticipates an award decision in early 2023. Should the project receive funding, no further applications are needed.

Bundling

The water projects and resiliency focus offer several bundling opportunities that should be evaluated at a grant-specific level with funding agencies.

1. There may be some opportunity to bundle water projects with work on buildings or routes used for tsunami evacuation as part of a larger future BRIC /HMGP project.
2. The project could include additional work under the West Hill (west side) transmission main and the Spit Water line replacement.

The City of Homer might also consider adding the other individual projects to the Drinking Water State Revolving Fund Intended Use Plan list to have other options.

Improvements reviewed are listed in **Table 1**.

Table 1 Projects to Include in Water-Related Grant Applications

Project Name	CIP Page #
Water Storage / Distribution Improvements (Ph.3)	39
West Hill / A-Frame Transmission Main	n/a
Spit Water Line Replacement	58

Federal Discretionary Grant Funding Recommendations

A review of federal funding programs compatible with this project includes the mainstream water programs and hazard mitigation funding.

FEMA Funding

The project appears to be compatible with FEMA's BRIC[1] / HMGP[2] in addressing the protective measures of critical utilities. Preapplications for funding assistance are made available through the State of Alaska upon a federal disaster declaration for the state.

HMGP requests can be a long-term process. Program awards are typically made in the late winter or early spring, depending upon when disaster declarations are published. The BRIC program application requirements are outlined in annual federal Notice of Funding Opportunity with sub-applications due to the State of Alaska earlier. Application cycles[3] can vary.

Applications require considerable effort and usually require a FEMA-specific Benefit Cost Analysis; therefore, it is primarily recommended for large projects with considerable impacts. Both HMGP and BRIC require the community to have an approved Hazard Mitigation Plan and projects should be explicitly listed as priority projects within the local plan.

BRIC / HMGP involve considerable federal regulations including extensive reporting requirements and a 25% match. FEMA programs follow tight procurement guidelines that often preclude entities assisting with grant application from bidding on design or construction.

See the Fire Station, Public Works, and Spit Erosion analyses for more on BRIC / HMGP.

Rural Development Water/Waste Disposal Loan and Grant

The traditional federal funding program to consider is U.S Department of Agriculture's (USDA) Rural Development (RD) Water/Waste Disposal Loan and Grant program[4]. This program matches up well with the projects for eligibility, activities proposed, and priority scoring. Drawbacks are the program is competitive within the state. Grant funds are limited (35% based upon local demographics) and they are usually combined with loan funding. Advantages are flexible usages, low interest rate loans (currently 3.5%) with up to 40-year terms, and a standardized application process with no Benefit Cost Analysis.

This program has an open window for applications. However, since RD receives annual program allocations on a federal budget year (October through September) and projects are funneled through on a first come-first served basis, projects submitted late in the budget cycle may be pushed to the next year.

[1] https://www.fema.gov/grants/mitigation/building-resilient-infrastructure-communities
[2] https://ready.alaska.gov/Mitigation
[3] https://www.ready.alaska.gov/Documents/Mitigation/FY_2022_BRIC_NOFO_8.5.22_508.pdf
[4] https://www.rd.usda.gov/programs-services/water-environmental-programs/water-waste-disposal-loan-grant-program/ak

There is $1.5B in available loan authority. There is $490M nationwide but each state only receives a formula share. Most projects do not exceed $5 million.

The RD Water and Waste Disposal Grant and Loan program has limited total funding for Alaska. RD Alaska awarded approx. $1.2M in grants in 2021 for water / enviro projects with several million dollars awarded in low interest loans in 2021.

RD funding is somewhat on the low end of federal strings and regulations; however, there are a few items to be aware of. The program will require a preliminary engineering report and review by RD. Projects with loan funds will require a bond counsel for closing the loan (fees can be included in loan). When loan funds are used, they typically must be used first and grant funds last.

Given the overlap for this funding program recommendations between this project and the Beluga Sewer project, it is recommended that the City of Homer pick a priority project for this fund source for immediate application and push a second project application further into the future. In addition, the City might consult with USDA to determine funder project preference.

State Funding Sources

The projects appear competitive for the Alaska Department of Environmental Conservation Drinking Water State Revolving Fund (DWSRF). This is traditionally a low interest loan program that can provide some principal forgiveness. For 2023, the DWSRF program is providing an estimated $3.2 million in principal forgiveness for disadvantaged communities and loaning approximately $91.7 million in low interest loans. The program caps principal forgiveness at $500,000 per project application. Homer qualifies for the principal forgiveness as a disadvantaged community. The program can also do sustainability planning, including rate studies, flow modeling, condition assessments, and more.

This program has an application window yearly Intended Use Plan (quarterly update). The storage improvement project has been included in the 2023 Intended Use Plan list of eligible loan projects. The tank project ranked 30th in the 2022 Intended Use Plan and is not currently listed as within the program funding limits. It would be advisable to keep the projects as separate requests under the Drinking Water SRF program and review project scoring yearly to see if a higher ranking could be achieved for future funding in the Intended Use Plan[5].

This project may be a good candidate for a state legislative request, since it may impact both local and state firefighting resources.

[5] (https://dec.alaska.gov/water/technical-assistance-and-financing/state-revolving-fund/

Schedule of Activities and Funding and Match Plan

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