OMB Number: 4040-0004 Expiration Date: 11/30/2025

Application for Fed	deral Assistanc	e SF-42	4				
* 1. Type of Submission:		* 2. Type	e of Application:	* If Rev	vision, s∈	elect appropriate letter(s):	
Preapplication		⊠ N∈	ew				
Application	Application Continuation			* Other	er (Specif	fy):	
Changed/Corrected Application Revision							
* 3. Date Received:		4. Appli	cant Identifier:				
Completed by Grants.gov upo	on submission.		4KZEV65				
5a. Federal Entity Identifi	ier:			5b.	. Federa	al Award Identifier:	
State Use Only:				_ !			
6. Date Received by State	e:		7. State Application	Identifie	er:		
8. APPLICANT INFORM	IATION:						
* a. Legal Name: Gir	rdwood Inc						
* b. Employer/Taxpayer I	Identification Numb	er (EIN/TI	N):	* C.	. UEI:		
77-0631498				UH	ILDH4F	KZEV65	
d. Address:							
* Street1:	P.O. Box 1102						1
Street2:							j
* City:	Girdwood						_
County/Parish:							
* State:	AK: Alaska						
Province:							
* Country:	JSA: UNITED S	TATES					
* Zip / Postal Code: 9	99587-1102						
e. Organizational Unit	::						
Department Name:				Div	/ision Na	lame:	
Girdwood Inc				1 [
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f. Name and contact in	ntormation of pers	son to be					
Prefix:			* First Name	e:	Dale		
Middle Name:					<u> </u>		
* Last Name: Goods	win						
Suffix:							
Title: President							
Organizational Affiliation	n:						
Girdwood Inc							
* Telephone Number:	907-229-8286	;			$\overline{}$	Fax Number:	
*Email: goodwin25	6@gmail.com]

Application for Federal Assistance SF-424
* 9. Type of Applicant 1: Select Applicant Type:
M: Nonprofit with 501C3 IRS Status (Other than Institution of Higher Education)
Type of Applicant 2: Select Applicant Type:
Type of Applicant 3: Select Applicant Type:
* Other (specify):
* 10. Name of Federal Agency:
Environmental Protection Agency
11. Catalog of Federal Domestic Assistance Number:
66.616
CFDA Title:
Environmental and Climate Justice Block Grant Program
* 12. Funding Opportunity Number:
EPA-R-OEJECR-OCS-23-04
*Title: Environmental and Climate Justice Community Change Grants Program
Invitormental and elimate subtree community enable states ilogiam
13. Competition Identification Number:
Title:
14. Areas Affected by Project (Cities, Counties, States, etc.):
GVWRP_Map1_Girdwood (1).png Add Attachment Delete Attachment View Attachment
* 15. Descriptive Title of Applicant's Project:
Glacier Valley Watershed Resilience Project
Attach supporting documents as specified in agency instructions.
Add Attachments Delete Attachments View Attachments

Application for Federal Assistance SF-424						
16. Congressiona	al Districts Of:					
* a. Applicant	AK-001		* b. Program/Project AK-001			
Attach an addition	al list of Program/Project	Congressional Districts if	needed.			
			Add Attachment Delete Attachment View Attachment			
17. Proposed Pro	ject:					
* a. Start Date:	07/01/2025		* b. End Date: 07/01/2028			
18. Estimated Fu	nding (\$):					
* a. Federal		12,145,380.00				
* b. Applicant		0.00				
* c. State		0.00				
* d. Local		0.00				
* e. Other		0.00				
* f. Program Incon	ne	0.00				
* g. TOTAL		12,145,380.00				
* 19. Is Application	on Subject to Review By	y State Under Executive	e Order 12372 Process?			
a. This applic	ation was made availab	le to the State under th	e Executive Order 12372 Process for review on			
b. Program is	subject to E.O. 12372 b	out has not been selecte	ed by the State for review.			
C. Program is	not covered by E.O. 123	372.				
* 20. Is the Appli	cant Delinquent On Any	y Federal Debt? (If "Yes	s," provide explanation in attachment.)			
Yes	∑ No					
If "Yes", provide	explanation and attach					
	Add Attachment Delete Attachment View Attachment					
21. *By signing this application, I certify (1) to the statements contained in the list of certifications** and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 18, Section 1001) ** I AGREE ** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.						
true, complete at terms if I accept administrative p	nd accurate to the best an award. I am aware enalties. (U.S. Code, Tit	of my knowledge. I als that any false, fictition le 18, Section 1001)	contained in the list of certifications** and (2) that the statements herein are so provide the required assurances** and agree to comply with any resulting us, or fraudulent statements or claims may subject me to criminal, civil, or			
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The following attachment is not included in the view since it is not a read-only PDF file.

Upon submission, this file will be transmitted to the Grantor without any data loss.

GVWRP_Map1_Girdwood (1).png



OMB Number: 2030-0020 Expiration Date: 06/30/2024

Preaward Compliance Review Report for All Applicants and Recipients Requesting EPA Financial Assistance

Note: Read Instructions before completing form.

I. A.	Applicant/	Recipient (Name, Address, City, State, Zip Code)
	Name:	Girdwood Inc
	Address:	P.O. Box 1102
	City:	Girdwood
	State:	AK: Alaska Zip Code: 99587-1102
	-	vitity Identifier (UEI): UHLDH4KZEV65 /Recipient Point of Contact
	Name:	Dale Goodwin
	Phone:	9072298286
	Email:	goodwin256@gmail.com
	Title:	President
II.	Is the appl	licant currently receiving EPA Assistance? Yes No
III.		nding civil rights lawsuits and administrative complaints filed under federal law against the applicant/recipient that allege nation based on race, color, national origin, sex, age, or disability. (Do not include employment complaints not covered by 40 C.F.R. Parts
Non	e	
IV.	based on	il rights lawsuits and administrative complaints decided against the applicant/recipient within the last year that alleged discrimination race, color, national origin, sex, age, or disability and enclose a copy of all decisions. Please describe all corrective actions taken. (Do de employment complaints not covered by 40 C.F.R. Parts 5 and 7.)
Non	e	
V.	last two y	il rights compliance reviews of the applicant/recipient conducted under federal nondiscrimination laws by any federal agency within the years and enclose a copy of the review and any decisions, orders, or agreements based on the review. Please describe any corrective ken. (40 C.F.R. § 7.80(c)(3))
Non	e	
VI.	Is the appl	licant requesting EPA assistance for new construction? If no, proceed to VII; if yes, answer (a) and/or (b) below. Yes No
а		nt is for new construction, will all new facilities or alterations to existing facilities be designed and constructed to be readily accessible to le by persons with disabilities? If yes, proceed to VII; if no, proceed to VI(b).
		∑ Yes
ŀ		nt is for new construction and the new facilities or alterations to existing facilities will not be readily accessible to and usable by persons bilities, explain how a regulatory exception (40 C.F.R. 7.70) applies.

VII.	Does the applicant/recipient provide initial and continuing notice that it does not discriminate on the basis of race, color, national origin, sex, age, or disability in its program or activities? (40 C.F.R 5.140 and 7.95)	Yes	No No
	a. Do the methods of notice accommodate those with impaired vision or hearing?	Yes	⊠ No
	b. Is the notice posted in a prominent place in the applicant's/recipient's website, in the offices or facilities or, for education programs and activities, in appropriate periodicals and other written communications?	X Yes	No No
	c. Does the notice identify a designated civil rights coordinator?	Yes	⊠ No
VIII	II. Does the applicant/recipient maintain demographic data on the race, color, national origin, sex, age, or disability status of the population it serves? (40 C.F.R. 7.85(a))	Yes	⊠ No
IX.	Does the applicant/recipient have a policy/procedure for providing meaningful access to services for persons with limited English proficiency? (Title VI, 40 C.F.R. Part 7, Lau v Nichols 414 U.S. (1974))	Yes	⊠ No
Χ.	If the applicant is an education program or activity, or has 15 or more employees, has it designated an employee to 40 C.F.R. Parts 5 and 7? Provide the name, title, position, mailing address, e-mail address, fax number, and telephocoordinator.		
No	ot applicable		
XI.	If the applicant is an education program or activity, or has 15 or more employees, has it adopted grievance procedu fair resolution of complaints that allege a violation of 40 C.F.R. Parts 5 and 7? Provide a legal citation or applicant's for, or a copy of, the procedures.		
No	ot applicable		
c	For the Applicant/Recipient I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowled or misleading statement may be punishable by fine or imprisonment or both under applicable law. I assure that I will fully com- rights statutes and EPA regulations.	lge that any knowi ply with all applica	ingly false able civil
Α	A. Signature of Authorized Official B. Title of Authorized Official	C. Date	
	Completed by Grants.gov upon submission.	Completed by upon subm	
	For the U.S. Environmental Protection Agency		
ii	I have reviewed the information provided by the applicant/recipient and hereby certify that the applicant/recipient has submit information required by 40 C.F.R. Parts 5 and 7; that based on the information submitted, this application satisfies the preaward and 7; and that the applicant has given assurance that it will fully comply with all applicable civil rights statures and EPA regula	d provisions of 40 C	
A	A. *Signature of Authorized EPA Official B. Title of Authorized Official	C. Date	

Instructions for EPA FORM 4700-4 (Rev. 04/2021)

General. Recipients of Federal financial assistance from the U.S. Environmental Protection Agency must comply with the following statutes and regulations. Title VI of the Civil Rights Acts of 1964 provides that no person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance. The Act goes on to explain that the statute shall not be construed to authorize action with respect to any employment practice of any employer, employment agency, or labor organization (except where the primary objective of the Federal financial assistance is to provide employment). Section 13 of the 1972 Amendments to the Federal Water Pollution Control Act provides that no person in the United States shall on the ground of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under the Federal Water Pollution Control Act, as amended. Employment discrimination on the basis of sex is prohibited in all such programs or activities. Section 504 of the Rehabilitation Act of 1973 provides that no otherwise qualified individual with a disability in the United States shall solely by reason of disability be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance. Employment discrimination on the basis of disability is prohibited in all such programs or activities. The Age Discrimination Act of 1975 provides that no person on the basis of age shall be excluded from participation under any program or activity receiving Federal financial assistance. Employment discrimination is not covered. Age discrimination in employment is prohibited by the Age Discrimination in Employment Act administered by the Equal Employment Opportunity Commission. Title IX of the Education Amendments of 1972 provides that no person in the United States on the basis of sex shall be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance. Employment discrimination on the basis of sex is prohibited in all such education programs or activities. Note: an education program or activity is not limited to only those conducted by a formal institution. 40 C.F.R. Part 5 implements Title IX of the Education Amendments of 1972. 40 C.F.R. Part 7 implements Title VI of the Civil Rights Act of 1964, Section 13 of the 1972 Amendments to the Federal Water Pollution Control Act, and Section 504 of The Rehabilitation Act of 1973.

Items "Applicant" means any entity that files an application or unsolicited proposal or otherwise requests EPA assistance. 40 C.F.R. §§ 5.105, 7.25. "Recipient" means any State or its political subdivision, any instrumentality of a State or its political subdivision, any public or private agency, institution, organizations, or other entity, or any person to which Federal financial assistance is extended directly or through another recipient, including any successor, assignee, or transferee of a recipient, but excluding the ultimate beneficiary of the assistance. 40 C.F.R. §§ 5.105, 7.25. "Civil rights lawsuits and administrative complaints" means any lawsuit or administrative complaint alleging discrimination on the basis of race, color, national origin, sex, age, or disability pending or decided against the applicant and/or entity which actually benefits from the grant, but excluding employment complaints not covered by 40 C.F.R. Parts 5 and 7. For example, if a city is the named applicant but the grant will actually benefit the Department of Sewage, civil rights lawsuits involving both the city and the Department of Sewage should be listed. "Civil rights compliance review" means: any federal agency-initiated investigation of a particular aspect of the applicant's and/or recipient's programs or activities to determine compliance with the federal non-discrimination laws. Submit this form with the original and required copies of applications, requests for extensions, requests for increase of funds, etc. Updates of information are all that are required after the initial application submission. If any item is not relevant to the project for which assistance is requested, write "NA" for "Not Applicable." In the event applicant is uncertain about how to answer any questions, EPA program officials should be contacted for clarification.

Project Narrative File(s)

* Mandatory Project Narrative File Filename: Track 1 CCG Application Narrative 11212024 Final.pdf

Add Mandatory Project Narrative File

Delete Mandatory Project Narrative File

View Mandatory Project Narrative File

To add more Project Narrative File attachments, please use the attachment buttons below.

Add Optional Project Narrative File

Delete Optional Project Narrative File

View Optional Project Narrative File

Section A: Executive Summary

<u>Title:</u> Glacier Valley Watershed Resilience Project

<u>Lead Applicant:</u> Girdwood Inc.

Statutory Partner to the Lead Applicant: Girdwood Valley Service Area (GVSA), in the

Municipality of Anchorage (MOA)
Lead Applicant Contact Information:

Dale Goodwin, Girdwood Inc. President, goodwin256@gmail.com, (907) 229-8286

Statutory Partner: Girdwood Valley Service Area

Brett Wilbanks, co-chair of Girdwood Housing & Economic Committee, Girdwood Valley Service

Area (GVSA), B4Girdwood@gmail.com, (907) 529-2993

Key Personnel:

Kyle Kelley, MOA, GVSA Manager, kyle.kelley@anchorageak.gov, (907) 343-8374

Matt Schechter, Girdwood Inc. Treasurer, matthew.d.schechter@gmail.com, (312) 823-6518

Russ Lawrence, Geomorphologist, russ@streamfix.com, (503) 781-8390

Dr. Barry Southerland, rivergriz@gmail.com, (360) 624-8390

A - Para Flathill

Applicant Eligibility:

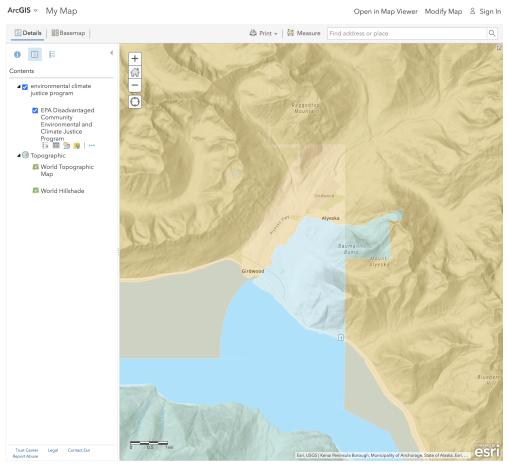
The Lead Applicant is Girdwood Inc., a locally established 501c3 that has been operating in the Girdwood Valley for over two decades and completing popular and successful community projects including the Alyeska Roundhouse Museum, Girdwood Library and Community Center, and a new childcare facility for the locally operated non-profit, Little Bears Playhouse. Girdwood Inc is recognized as a CBO.

The Statutory Partner is the Girdwood Valley Service Area (GVSA), a designated service area within the Municipality of Anchorage (MOA), established to address the specific needs of the Girdwood community. GVSA operates under the oversight of the Girdwood Board of Supervisors (GBOS), which functions as the governing board for the service area, and is advised by the Girdwood Housing & Economic Committee (GHEC). Neither GBOS nor GHEC possess legislative authority; instead, they act in advisory and administrative capacities in coordination with the Anchorage municipal government. While GVSA is the Statutory Partner for this project, it is composed of two bodies, GBOS oversight and GHEC service area committee work, to ensure the project's alignment with community priorities within the service area. As defined by the regulations in 2 CFR 200.1, units of government, like GVSA, within a state are eligible to enter a Statutory Partnership with a CBO. GVSA, as a recognized entity within the Municipality of Anchorage (MOA), meets the eligibility requirements outlined in Section III.A of the NOFO. Disadvantaged Community to benefit from the projects: The disadvantaged community that will benefit from this project is Girdwood, Alaska. (Please refer to Executive Summary Pg 2) Grant Award Period and Completion: The proposed period of performance and completion for this project would start upon notice and award acceptance for up to 3 years to include two bank-full high-water events. The project activities listed in this application's scope of work would be completed in less than three years following the approval of grant funding. A project timeline is included in section B.2.4 Programmatic and Managerial Capability and Resources. **EPA Funding Requested:** Track I \$12.15 million requested.

Other Sources of Funding: Funding for this type of climate resilience project is not available

solely for Girdwood under any of the other Infrastructure Investments and Jobs Act (IIJA), or other IRA programs. These federal funding streams are typically only available to Girdwood's formal governing body, the Municipality of Anchorage (MOA) Borough. The Anchorage Borough population is 398,328 and represents 40% of Alaska's entire state population. The borough is one of the largest in the nation, in terms of area, and spans 1,946 square miles from north to south including the towns of Eagle River, Chugiak, Bird, Indian and Girdwood. The issues that concern the 1979 residents of Girdwood are not a priority for the larger, voting population centers of the MOA. This has left Girdwood to respond in a reactive manner to natural disasters and the effects of climate change, rather than being proactive with planning and mitigation activities. This EPA grant opportunity would allow Girdwood Inc. to manage and grant sub awards with precisely negotiated terms and conditions giving guidance and allowing substantial federal involvement as part of the sub-award process. There are no other sources of funding currently available that provide comprehensive assistance to the multiple landowners and providers of infrastructure and services—Private, Federal, State, and Municipal— such as those who had previously received FEMA restoration funding assistance from damages incurred in the Typhoon Oscar disaster flooding of 1995.

Resubmission Status: N/A.



(P1) Girdwood, Alaska pictured above, disadvantaged community area is orange

Section B: Work Plan - Community Vision Description

Part 1. Community-Driven Investments for Change

B.1.1 Community Vision Description

The Girdwood valley is located 45 miles from Anchorage, bounded by Turnagain Arm, Chugach State Park, US Forest Service Glacier Ranger District, the Chugach Mountains, the Kenai Peninsula and Prince William Sound. The steep slopes of the Chugach mountains border three sides of Glacier Valley, crowned by 7 glaciers. Four dynamic glacial mountain streams flow into a valley of wetlands, floodplain and old growth forest in a northern latitude temperate rainforest. During the early years of Alaskan statehood, Girdwood was not a part of the Municipality of Anchorage, but in the mid 1970s, a controversial vote forced Girdwood to join the Greater Anchorage Municipality.

Girdwood is a destination for adventure seekers and nature enthusiasts. Mountain recreation, vast natural beauty and a vast network of trails, make Girdwood a four season destination for those that want to get away and enjoy Alaska. The selected project area is contained on State and Municipal lands within the Girdwood Service Area and will directly benefit all disadvantaged community members and those that choose to visit.

B.1.2 Community Challenges

Continued erosion of the surrounding mountains by glacial activity moves vast amounts of material out of the hills onto the alluvial plain of Glacier Creek valley. These natural forces fill the river channels and cause increased flooding damage. Recent weather events have led to millions of dollars in damage to infrastructure from heavy rains.

The Glacier Creek Valley has the rough form of a trough with angled sides. The slope through the valley remains constant. Flood flows remain relatively constant suggesting the cross sectional area needed to accommodate that flow is also relatively constant. As sediment accumulates in the bottom of the valley, the width and depth factors change.

The width of the flood flow becomes wider and the depth necessary to accommodate the flood flow area becomes less. As the depth becomes less, there is a linear decrease in Stream Power. The less Stream Power, the less sediment will be transported, exacerbating the accumulation of sediment, and increasing the width of the area inundated by flooding.

Even though this alluvial gravel buildup is a renewable local resource, all material for infrastructure and land development is trucked in from Anchorage or Palmer, which is between 40 and 90 miles away from Girdwood, respectively. This transportation of gravel material into Glacier Valley represents one of the largest environmental impacts in the area. The direct impacts include increased highway traffic, substantial traffic through the lower

valley disadvantaged neighborhood, air quality issues with particulates, noise, and diesel exhaust.

Because of this, the costs associated with reinforcement, protection, maintenance, and development of critical infrastructure are substantial and in most cases cost prohibitive. This is why several critical infrastructure items have been deferred. These postponed critical items include repair of washed out fish bypass culverts, road improvements to mitigate flooding of neighborhoods, repair of flood prevention levee for Old Girdwood neighborhood, protection of community water supply well from river erosion, as well as other community access road work.

These critical maintenance repairs are necessary to maintain access, prevent risk to life and property, and to ensure continued economic activity despite these recurring significant weather events. Past events, such as 1995 flooding, 2002 "Stumpy's storm" snow bound isolation, 2021 October flooding and roadway washouts¹, show us how severe the impacts can be. There is only one ingress/egress path over the Glacier Creek bridge; the abutments for which have just had to have been armored with additional material due to substantial erosion.



(P2) October 2021, Ruane Road culvert washout exposing sewer main after rain event

In addition, one of the largest risks in this area is the imminent failure of the lower Glacier Creek levee, which protects approximately 75% of the full time residents in Girdwood. This area, known as Old Girdwood, is a collection of residential, commercial, and critical public

4

of-snow/

¹ E. Schwing, Seattle Times, 2021 https://www.seattletimes.com/nation-world/nation/prodigious-alaskan-storm-dumps-record-rain-10-plus-feet-

utilities that would suffer catastrophic flooding in the event of the levee failure. The integrity of the levee is in very poor condition and will have to be bolstered in the near future. However, without a local source of material, the costs to repair are prohibitive.

B.1.3 Community Vision

During the 1995 Girdwood Flood Disaster there was much damage to infrastructure, personal property and businesses in the Glacier Creek valley. Gravel and rock being carried down Glacier Creek were deposited in the alluvial plain raising its elevation and causing further flooding. During this emergency the Girdwood Board of Supervisors, using heavy equipment, removed approximately 40,000 yd³ of gravel and rock from Glacier Creek protecting infrastructure and property from additional damage. This experience established the effectiveness of removing alluvium from the floodplain as a means to mitigate risk of damage and economic activity. In addition, stabilizing the floodplain can provide consistency for fish propagation and management. The purpose of this effort is to develop a means to accomplish preemptive removal of this alluvial material to mitigate future risks.

A fully realized Glacier Valley Watershed Resiliency Project would reduce environmental climate impact to the entire community and provide a great number of direct and indirect benefits to the whole project area within the disadvantaged community and the State of Alaska. Additional benefits of a fully realized project also include habitat enhancement for fish rearing areas within the river drainage. The study, design, engineering, development and operation of a comprehensive alluvium management strategy will provide a perpetual system of material management and habitat enhancement in Girdwood. This will reduce risk to life and property from flooding, mitigate future climate risk by maintaining a viable river reach that allows the water to stay in the desired channels, reduce environmental impacts on the entire community by locally sourcing gravel material, provide local opportunity for contractors or land developers to source more affordable materials for infrastructure and land development throughout Girdwood, encompassing the defined disadvantaged community area. This will lead to increased housing development due to affordability of land development and the increase of local, associated jobs. The benefits to the community would be tangible, immediate, local, and perpetual.

B.2.1 Strategy Overview

Selected Strategy: Green Infrastructure and Nature-based Solutions

Strategy and Project Overview

The Green Infrastructure and Nature-based Solutions strategy addresses critical environmental challenges in Girdwood's Glacier Valley, such as erosion, flooding, and air pollution. Specifically, this approach leverages green infrastructure methods to mitigate flooding and reduce climate impacts by utilizing locally sourced gravel to fortify public infrastructure, protect and sustainably manage the natural watershed systems of Glacier

Valley. Key projects include the extraction of local gravel from Glacier Creek, the development of stormwater and fish passage management systems, and reconstructing critical flood management infrastructure. Together, these initiatives will enhance the watershed's resilience, provide significant infrastructure protection, and improve air quality by reducing diesel emissions from long-haul transport of materials.

Integrated and Complementary Benefits

This Green Infrastructure strategy complements pollution reduction and resilience goals by addressing local air quality, community safety, and flood prevention. By sourcing gravel locally, the community minimizes transportation-based emissions and reduces traffic, which directly lowers air pollutants affecting disadvantaged neighborhoods within the project area.

Additionally, fish habitat enhancement and installation of fish passages is a natural outcome from a comprehensive design that would offer further opportunities for salmon and other species to extend up Glacier Valley, offering both immediate, as well as long-term, environmental benefits.

The scale and scope of the project area, encompassing key flood-prone and disadvantaged community areas, are designed to maximize community-wide impact. These areas include Old Girdwood, which faces high flood risk, and neighborhoods where road maintenance improvements are necessary to prevent washouts and protect public access.



(P2) October 2021, Flooding of California Creek erodes and damages community infrastructure, E. Schwing

Funding Proportion Allocation

The requested funding is proportionally allocated to progress through the necessary data gathering, design, engineering, permitting, development, and refortification of a comprehensive alluvium management system. Project funding is for the sole purpose of the Glacier Valley Watershed Resilience Project with the selected strategy of Green Infrastructure and Nature-based Solutions.

B.2.2 Climate Action Strategies

The Green Infrastructure projects under this Climate Action Strategy directly address climate impacts by strengthening flood resilience and reducing green-house gas emissions from transportation. Local gravel sourcing for infrastructure needs will eliminate the need for hauling materials from distant locations, which substantially reduces emissions and traffic, addressing both environmental and public health challenges within the Project Area.

By restoring the major channel to accommodate intensifying mountain runoff, the project enhances vegetation and habitat, sequestering carbon, mitigating stormwater runoff, and managing erosion and deposition of alluvium materials. These efforts are in direct response to Girdwood's frequent flooding issues, which pose risks to the disadvantaged communities within Old Girdwood and surrounding areas. The use of renewable resources, such as this local and regenerative mountain alluvium, aligns with Girdwood's Community Vision of sustainable, long-term resilience against climate impacts and serves as a foundational element of the area's adaptation to extreme weather patterns.

B.2.3 Pollution Reduction Strategies

Selected Strategy: Outdoor Air Quality and Community Health Improvement

The Glacier Valley Watershed Resilience Project projects contribute significantly to pollution reduction by minimizing emissions from transportation, by making it unnecessary, and improving air quality. Gravel sourced locally from Glacier Creek reduces the need for frequent, heavy truck traffic through Girdwood from Anchorage, decreasing diesel emissions and particulate pollution. This strategy is particularly beneficial for residents in lower valley areas who experience higher exposure to vehicle pollutants due to their proximity to major transportation routes.





(P3/P4) October 2024, Air quality is greatly impacted with materials imported to Glacier Valley from Anchorage or beyond, more than 40 miles away; B. Wilbanks

These initiatives make substantial progress in creating a healthier, cleaner environment for residents of EPA IRA Disadvantaged Communities, addressing critical pollution challenges and providing quantifiable improvements in local air quality and public health.

These actions align closely with Girdwood's identified needs in the Community Vision and will serve as essential steps toward achieving the area's long-term sustainability and resilience goals.

Part 2. Program Management, Capability and Capacity

B.2.1 Performance Management Plan, Outputs / Outcomes

The Glacier Valley Watershed Resiliency Project will deliver measurable improvements in Girdwood's environmental conditions, public health, and climate resilience by tracking defined outputs and outcomes related to green infrastructure, pollution reduction, and watershed management.

Project Outputs and Outcomes

Outputs

- 1. **Flood Mitigation:** Establish a sustainable river reach whereby the river is able to stay within the channel.
- 2. **Gravel Extraction:** Extract gravel from Glacier Creek within the performance period to reduce flood risk and stabilize the alluvial plain.
- 3. **Infrastructure Implementation:** Build up flood prevention levees in the watershed; add armor rock and material to protect the Glacier Creek DOT bridge; protect the Girdwood Municipal Airport; enhance protection for AWWU community water supply well; and make improvements to stormwater drainage to enhance fish habitat.

Outcomes

- 1. **Reduced Air Pollution and GHG Emissions:** By sourcing gravel locally, the project aims to decrease diesel truck emissions, targeting a 40% reduction in particulate matter and CO2 emissions from transportation activities.
- Enhanced Public Health and Safety: Improved flood control infrastructure and increased river channel capacity will reduce flooding frequency and severity, protecting at-risk areas in Girdwood and minimizing health risks associated with poor air quality.
- 3. **Increased Resilience and Biodiversity:** Reconstructing meanders and stabilizing eroding streambanks to maintain floodplains, and promoting biodiversity through salmon spawning enhancements will create a more resilient watershed, reducing flood damage and improving habitat for local fish species.

Tracking and Measuring Project Performance

The project will employ robust tracking methods, using indicators such as:

- **Volume of gravel extracted** to measure progress in flood risk mitigation.
- Air quality and GHG emissions data (using baseline and mid-project assessments) to track pollution reduction outcomes.
- **Stream gaging and trend monitoring** to gauge river stage and observe channel volume performance

Selection of Outputs and Outcomes

The chosen outputs and outcomes were derived from community-identified needs detailed in the project narrative and are designed to address specific environmental and public health challenges. By reducing flood impacts and air pollution, the project provides both immediate and long-term improvements to the disadvantaged community areas within Girdwood, fostering sustainable development and resilience.

Evaluation and Documentation

Evaluation tools, such as pre- and post-implementation surveys, stream-level monitoring, emission monitoring, and water-flow assessments, will be deployed in partnership with experienced evaluators & community facilitators. This will enable continuous documentation of project progress and adjustment of activities to meet performance targets effectively. This

will ensure alignment with the project's environmental and public health goals, demonstrating meaningful progress toward EPA's Community Change Grants objectives.

B.2.2 Project Linkages to the EPA Strategic Plan

Goal 1: Tackle the Climate Crisis

Objective 1.2: Accelerate Resilience and Adaptation to Climate Change Impacts

Arctic amplification refers to the phenomenon where the arctic region warms at a faster rate than the rest of the planet due to climate change. In Alaska, the effects of climate change can be particularly noticeable, and in particular for Girdwood, climate driven events like floods are becoming more frequent and damaging. Additionally, the rapid melting and recession of glaciers, accelerated by climate change, is worsening these environmental challenges. Working in a proactive way to address Girdwood's climate related issues demonstrates both resilience and adaptation. This project shows a grassroots effort to recognize the disaster potential from increased flooding risk and work proactively to mitigate any damage to life and property before it happens.

Goal 2: Take Decisive Action to Advance Environmental Justice and Civil Rights. Objective 2.1: Promote Environmental Justice and Civil Rights at Federal, Tribal, State, & Local Levels

The Glacier Valley Watershed Resiliency Project will establish a foundation for future community-led initiatives. By focusing on the specific challenges that Girdwood faces and planning projects to address climate change impacts locally, it will demonstrate Girdwood's capability to manage such efforts. This project will directly improve the environmental quality for all residents in this disadvantaged community. As a result, the municipality will likely recognize Girdwood's ability to solve issues locally and be more likely to trust in and consult the community on future issues.

Goal 4: Ensure Clean and Healthy Air for All Communities

Objective 4.1: Improve Air Quality and Reduce Localized Pollution and Health Impacts

The Glacier Valley Watershed Resiliency Project directly advances EPA Goal 4, Objective 4.1 by implementing green infrastructure solutions that improve air quality and reduce pollution within Girdwood's disadvantaged areas. By locally sourcing gravel through sustainable extraction from Glacier Creek, the project minimizes diesel emissions associated with long-haul transport, addressing localized air pollution and particulate matter concerns that disproportionately affect disadvantaged communities. Additionally, the project's green infrastructure, including watershed enhancement, mitigates flood impacts and stabilizes natural habitats, improving both air quality and public health outcomes in alignment with Objective 4.1's focus on reducing pollution disparities

Goal 5: Ensure Clean and Safe Water for All Communities.

Objective 5.2: Protect and Restore Waterbodies and Watersheds

This project will take a geomorphic approach to channel restoration in Glacier Creek. This

design approach works within the natural range of physical variability, as well as considering project goals and objectives of the Girdwood community such as infrastructure protection and riparian habitat restoration and enhancement. The stream analysis, data collection and design protocols set forth in Stream Restoration Design Handbook, Chapter 11 (Bernard, 2007) and amplified in Watershed Assessment of River Stability and Sediment Supply (WARSSS) (Rosgen. 2006) have been successfully applied to stable stream modification nationally, and internationally, over the past 20 plus years. This same protocol will be successful when applied to Glacier Creek.

Goal 6: Safeguard and Revitalize Communities

Objective 6.1: Clean Up and Restore Land for Productive Uses and Healthy Communities and Objective 6.3: Prepare for and Respond to Environmental Emergencies.

This project supports this goal and objective by working to decrease stream bed erosion, alleviating any structural issues and ensuring that critical infrastructure in Glacier Valley is not compromised in a flood event or environmental emergency.

B.2.3 CBO Experience and Commitment

The project CBO, Girdwood Inc. has received grant funding and completed projects including the Girdwood Firehall and Emergency Services building, the Girdwood Community Center and Library, the Girdwood Clinic, the Girdwood Post Office and the Alyeska Roundhouse Museum. Girdwood Inc. is a registered 501c3 and is compliant with all federal grant reporting requirements.

The current members of Girdwood Inc. are local residents, homeowners, business owners and retirees. Their collective experience will help ensure the development and oversight of a solid plan and a well executed project. The board members of Girdwood Inc., GHEC and GBOS are all volunteers, which highlights the commitment they have to their community, as well as their desire to make Girdwood a safe and prosperous place to live. These board members have a shared goal to collect information, concerns and desires from their fellow community members and work to solve problems and improve the quality of life for all residents. Anchorage is not able to prioritize many Girdwood issues, so having a strong local voice on the advisory boards is critical. Showing the results of a well-planned and funded grant project can encourage the MOA to give Girdwood Inc., GHEC and GBOS more opportunities for cooperative governance on important community issues.

B.2.4 Programmatic and Managerial Capability and Resources

During community meeting discussions, there has been a decision to hire the local Girdwood Town Manager, Kyle Kelley as the program manager for this project. His decades of experience in his position, his ability to work with the Municipality, GHEC and Girdwood Inc. and his understanding of the resources that are available, will help ensure success. Girdwood Inc. will be able to successfully complete, oversee, and manage funding as demonstrated by their past

performance. The Girdwood tax service area has the benefit of the Municipality of Anchorage for oversight and assistance with grant compliance and reporting capacity. Their guidance ensures that reporting requirements will be met in a timely and efficient manner.

In 1995, during Typhoon Oscar, there was extreme damage to infrastructure, personal property and businesses in the Glacier Creek valley. During this emergency, the Girdwood Board of Supervisors (GBOS) used heavy equipment to remove 40,000 cubic yards of gravel and rock from Glacier Creek to protect critical infrastructure and property from further damage. At that time, there were numerous agencies and entities in Girdwood with significant damages that requested FEMA infrastructure restoration financial assistance; including Alaska Railroad, DOT, FAA, Girdwood Fire Department, Chugach Electric, the MOA, 6 small businesses, private homes and the local ski resort. As evidenced by this list (*Appendix B*), this mitigation project will also proactively benefit other state and federal agencies by supporting the community infrastructure with preventative flood mitigation measures.

GBOS was the Project Manager for the Typhoon Oscar National Disaster Response. The GBOS Project Manager at the time was the point of contact for the FEMA restoration response. In this capacity, GBOS coordinated and oversaw multiple responses to successful conclusions involving working with multiple agencies and their various issues, including Federal, State, Municipal and Private entities. These efforts were successful because they were implemented from the Girdwood ground level, and not decided in Anchorage by non-residents. In this critical moment of disaster flood response, the local GBOS board members worked at the community level to prioritize and implement the necessary tasks and steps toward recovery. This local arm of the Anchorage Municipal government is a critical collaborating entity and has valuable local experience to help support this project. The Glacier Valley Watershed Resiliency Project is grassroots and solutions-oriented, and it will safeguard the Girdwood community from the compounding negative effects of climate change (*Appendix A - Typhoon Oscar, 1995 FEMA disaster requests from Girdwood, AK*).

Projected Milestone Schedule

Phase 1 (Year 1): Preliminary Planning, Permitting, and Initial Gravel Extraction

- Gather Data: Define proper river reach parameters, install instrumentation for stream gaging, perform material sampling and define potential sites for harvest pool development.
- Permitting and Environmental Assessments: Initiate permit applications with the Alaska Department of Environmental Conservation, Alaska Department of Natural Resources, and other relevant agencies, focusing on stormwater management and flood mitigation work compliance.
- **Gravel Extraction Pilot**: Begin with a controlled gravel extraction to remove an initial 40,000 cubic yards from Glacier Creek. This step will reduce immediate flood risks and provide materials for infrastructure reinforcement, with a priority for the Old Girdwood levee reinforcement and California Creek flood diversion structures.

- Community Engagement: Conduct two community meetings to discuss project objectives, timelines, and obtain feedback from local residents on environmental and safety concerns.
- **Outcomes**: Establish regulatory compliance, demonstrate flood risk reduction benefits, establish alluvial properties, establish a comprehensive design, build community support and awareness, and implement infrastructure improvements.

Phase 2 (Year 2): Full-Scale Sustainable Gravel Extraction, Green Infrastructure Implementation, and Community Training Tasks:

- **Engineering:** Realize a comprehensive design for an alluvial management system with salmon habitat enhancements within the watershed.
- **Final Permitting and Development:** Establish final necessary permitting and studies to develop the physical infrastructure and any needed access.
- **Expanded Gravel Extraction**: Extract additional material, the sustainable quantity to be determined by analysis, which will be used to reinforce flood prevention and repair infrastructure vulnerable to flooding.
- Outcomes: Strengthen community infrastructure, reduce sediment buildup in flood-prone areas, reduce air pollution and foster community involvement in flood resilience. Also, provide infrastructure protection materials such as armor rock, road base and fill for deployment around public facilities; including: AK DOT airport, AK DOT highway bridges, AWWU municipal public water system, AWWU municipal public waste system, Alaska Railroad bridge and abutments, levee infrastructure, and Girdwood municipal parks.

Phase 3 (Year 3): Monitoring, Data Collection, and Evaluation

- Monitoring and Data Collection: Implement continuous water quality and air quality monitoring to evaluate pollution reduction outcomes, including reductions in particulate emissions from reduced diesel truck traffic.
- **Evaluation and Reporting**: Conduct a final project evaluation using quantitative and qualitative data to assess gravel extraction effectiveness, green infrastructure impact, and community resilience improvements.
- **Final Community Engagement**: Hold a concluding public meeting to share project outcomes, lessons learned, and gather feedback for future environmental initiatives.
- **Outcomes**: Demonstrate measurable improvements in flood resilience, air quality, and public health, completing all deliverables within the grant period and establishing a framework for ongoing watershed management.

This phased approach ensures efficient, transparent use of resources and positions Girdwood for long-term environmental and economic benefits.

B.2.5 Past Performance

Girdwood Inc. has successfully managed several key local capital projects. Girdwood Inc was the fiscal sponsor for the repair and renovation of the historic Roundhouse at Alyeska, a 3-million-dollar project, as well as the Gerrish Library and Community Room, a 6-million-dollar project completed in 2008.

Girdwood Inc has been a trusted entity to hold funds for a variety of purposes and projects, including recreation and infrastructure, for the past 20 years. Most grants received within the past three years have been for the purposes of the Girdwood Workforce Childcare Project. The objective of this project is to build a new and safe childcare center to replace the existing facility, which has known safety issues. This project will result in a much-needed increase to licensed childcare capacity in our community.

The following grants have been secured:

- ARPA II \$1,600,000 2022
- The Rasmuson Foundation \$350,000 2023
- State of Alaska Budget Appropriation Grant Dept of Commerce \$500,000 2024

The project broke ground this summer with clearing and waterline and sewer line installed. The vertical construction is scheduled to begin May 2025.

Additionally, Girdwood Inc was awarded a \$140,000 ARPA Grant to complete the new Girdwood Area Plan. The new plan, a culmination of years of community input and effort, is expected to be adopted by year end 2024.

Part 3. Feasibility, Sustainability, and Budget

B.3.1 Feasibility

This project is entirely feasible and can be implemented within the performance period. The described activities have been performed in the past, under emergency authorization to mitigate active flood events. Because the scope is well outlined, implementation will lead to immediate and tangible results. The permitting authority is well defined and initial engagement with the Alaska Department of Natural Resources is supportive of managing this renewable resource. Preliminary scoping efforts for study and design have been well reviewed and local interest in renewable and available materials is extremely high. In addition, immediate mitigation work at the lower valley levee and Alaska Railroad bridge are a top priority of the local statutory authority and would represent a significant reduction in risk to life and property. These activities are a simple exercise in moving gravel material, over a short distance, and pose a low risk to feasibility.

B.3.2 Sustainability

The outcome from this project will be an alluvial material management system that will provide opportunity for local jobs, as well as necessary materials for housing, roads, and critical infrastructure into the future. Forward sustainable availability of these local materials will be ensured through bid awards to local contractors for annual material removal. This will provide a cost neutral resource that will reduce the expense of infrastructure maintenance and new land development for housing throughout the disadvantaged community area.

B.3.3 Program Budget Description

The first activities are initial assessment of optimal river reach over the alluvial plain and study of flow to model material quantities within the deposition zones formed by existing infrastructure. Additionally, we will evaluate geologic composition of material in potential areas of the river channel to be mitigated; Design and engineer a comprehensive material mitigation system that allows early removal of material at optimal source locations before it is transported downstream in mass quantities; and Develop the operational parameters, impact statements and obtain the appropriate permits. This is the first year effort and the output will be used to move to the implementation phase.

The next step is to implement the prescribed design. Provide materials for repairs and protection of public infrastructure within the service area, including levee repair, protection of existing river adjacent infrastructure, habitat enhancement, and monitoring of river conditions and air quality; Scale to a sustainable and perpetual mitigation effort by making material available on a seasonal basis by bid to local contractors, for local land development; and realize salmon habitat enhancement with dual use material catch pond design and fish run enhancements. This will encompass the second and third years of the performance period.

For a full description of each line item, please refer to Attachment A of the required NOFO attachments.

Object Class Categories	Description	66.616 Environmental and Climate Justice Block Grant Program
a. Personnel		\$124,800
Girdwood Inc administration personnel	Job position: Program Director 20hr/Week - 1040hr/Year \$40/hr - \$41,600/Year	\$124,800
b. Fringe Benefits		\$0

c. Travel		\$15,000
Consultant travel	Out-of-state travel - consultants travel TO Girdwood, Alaska 2x Trips Budgeted, 2x travelers Flights: Average \$600/RT for West Coast travel to ANC Hotel/Stay: Average \$300/night x 7 Days Per Diem: \$75/day x 7 days Mileage: Estimated travel ~2,000 Miles Padding: 15% padding for additional expenditures related to travel Necessity based on lack of local contractors experienced in geomorphology and glacial alluvial watershed management	\$15,000
d. Equipment		\$88,000
Stream gage stations, x3	Direct equipment cost, installation noted as "monitoring site installations" Useful life: 30+ years	\$66,000
Air monitor station	Direct equipment cost, installation noted as "monitoring site installations" Useful life: 30+ years	\$22,000
e. Supplies	Tangible outreach supplies; Outreach, facilities rental, printing & signage for community meetings	\$15,000
f. Contractual		\$2,061,000
Project management	Project Manager contract with Municipality of Anchorage, Girdwood Valley Service Area	\$340,000
Civil engineering	Engineering and design for extraction sites and refortification of critical infrastructure Years 1-3, Competitive	\$350,000
Watershed study	Data research and hydrologic data Stable stream measurement Flood sediment collection and analysis Identify OHW and topo project reach Geomorphic channel design Entity permitting meetings (virtual) Bid document preparation Years 1-2, Competitive	\$276,000
	In-field analysis of material within watershed to determine project sites	
Geo material assessment Operational Impact Assessment	Year 1, Competitive Gravel extraction operation plan to determine operational feasibility and use of selected project sites Year 1, Competitive	\$77,500 \$50,000
Permitting, access, impact	Navigation, application, and research for permitting needs, access needs, and environmental impact on	\$430,000

	project sites Years 1-2, Competitive	
Community engagement facilitator	Assist with informing community members and collecting community feedback throughout the grant period Years 1-3, Non-competitive micropayment	\$7,500
Monitoring site installations	Installation of 3x stream gages and 1x air monitoring station Year 1, Competitive	\$45,000
Geospatial Mapping and Surveying Services	High-resolution drone mapping, bathymetric surveys, and GIS data delivery (orthomosaic maps, DTMs, DSMs) for watershed analysis and resiliency planning. Year 1, Competitive	\$85,000
Accounting, Compliance & Performance review	Third-party compliance and performance review on grant progress Estimated at \$50,000	\$50,000
Audits	Third-party audits on financial and grant performance Estimated at \$25,000 per \$750,000 in award	\$350,000
g. Construction		\$9,580,000
Plunge pool structure, habitat development	Excavation of material settling ponds below canyon and above airport to capture gravel before deposition in the lower channels	\$2,150,000
Mt Hood Drive fish culvert	Construction of a new replacement culvert on Alyeska Creek at Mt. Hood Road that meets fish passage standards and is sized to meet flood calculations for the area. Mt Hood Drive provides direct access to project site	\$1,200,000
Davos Drive grade uplift	Material for road service area repairs to neighborhood access road along Glacier Creek	\$600,000
Airport armor along Glacier Creek	Refortification of Airport levee located near project site	\$375,000
Wellhouse protection	Refortification of community wellhouse located near project site	\$90,000
Sewer plant protection	Refortification of wastewater plant located near project site	\$125,000
Gravel extraction, classification, lower valley	Establish lower Glacier Creek river channels	\$800,000
Gravel extraction, site remediation for transportation and access	Direct costs for remediation of access roads for access to project site(s)	\$400,000
Material transport	Material transport within Girdwood Valley between extraction and infrastructure receiving refortification	\$55,000
Reconstruct lower valley levee	Reconstruction of the Old Girdwood levee to prevent flooding a disadvantaged community	\$535,000

Reconstruct California Cr levee	Refortification of levee near elementary school, post office, police department, and phone/internet servers and office	\$250,000
Alyeska and Tanaka Creek fish passages and flood reduction culvert improvements	Multiple culverts on Alyeska Creek and Tanaka Creek drainages, both part of the Glacier Creek Watershed, don't meet flood and fish passage standards. To prevent washout, increase watershed resilience, and allow fish passage, new engineered culverts will be installed and fortify existing creek crossings at Banff Rd, Arlberg Dr, Alyeska View Ave, Vail Dr, Timberline Dr, and Alta Dr to improve drainage and reduce flooding potential. Roads provide direct access to project areas.	\$3,000,000
h. Other		\$40,000
Subawards		
Participant Support Costs		\$0
Additional Costs		
Gage site operations	Operations, management, and maintenance of stream gages and air monitoring station \$20,000 a year / phases 2 & 3	\$40,000
i. Total Direct Charges (sum of		
6a-6h)		\$11,923,800
j. Indirect Charges		\$221,580
overhead 10% de-minimus	Calculated on 10% de-minimus rate on personnel, contractual, supplies, & travel	\$221,580

⁽T1) Budget Line Items | * Girdwood Inc aims to comply with all grant purchase restrictions. For equipment purchases, we seek to purchase long-term river flow gages and air quality monitoring stations. Girdwood Inc will comply with all EPA restrictions on purchasing of data-collecting equipment utilizing funds from this grant.

APPENDIX A: Typhoon Oscar, 1995 FEMA disaster requests from Girdwood, AK

Girdwood Valley, Alaska Flood Disaster Comprehensive Damage Assessment through October 7, 1995

Agency/	Damage	Address	Category of	Preliminary
Sector	Site		Damage	Estimate
MOA-ATU	valley wide	phones	e,f,d,b	\$17,500
MOA- AWWU	valley wide	water,sewer	f,a	\$87,000- \$112,000
MOA	Glacier Ck.	armor rock: purchase, transport, placement	b,d,f	\$185,000
MOA	Glacier Ck.	channeling, gravel replacement	b,d,f	\$20,000
MOA-GFD	valley wide	communications, emergency lighting	e,g	\$16,000
MOA-Trails	Winner Creek California Ck Glacier Creek Crow Creek Bike Path Tiny Creek Beaver Pond Ck. Virgin Creek	replace 12 bridges, reconstruct 4 miles trail est.	a,b,c,d	\$45,000
MOA- Girdwood road service	valley wide	reconstruction	list attached	\$100,000 est.
		10		
Ak State DOT	Glacier Ck. (including airport)	armor rock, channeling, gravel replacement	a,b,c,d,f	\$100,000 \$30,000
Ak State DOT	Crow Creek Rd.	bridge and road repairs	a,b,c,d	unknown
Ak State Fish and Game	Glacier Ck. California Ck.	habitat restoration, revegetation	a,g,b,d a,g,b,d	\$10,000 \$4,000
Ak Railroad				unknown
U.S. Forest Service	Chugach National Forest	trails, culverts, bridge, road	a,b,c,d	\$29,000
Alyeska	Mt. Alyeska,	attached list	a,b,c,d,e	\$100,000
Resort	Alyeska Ck.			

19 private homes	valley wide	attached lists	a,e,g,b,d	\$106,000
Girdwood Mall	Hiway	roof and ceiling damage, storm drain plugging	a,b,e	\$7,500
6 businesses	valley wide		a,b,d,e,	unknown
Chugach Electric	valley wide		a,b,f	\$67,000
Pvt. access	Upper Crow Creek	culverts, road	a,b,c,d	\$5,000
Girdwood Mine	Upper Crow Creek	stream stabilization, 5/8ths mile, return Crow Creek to channel	a,b,c,d	\$78,000
Crow Creek Mine	Crow Creek	Crow Creek trail repairs	a,b,c	\$5,000
New Girdwood Townsite	water well contaminatio n	3 wells preliminary, multiple locatons	b,d,f	unknown
			prelim. total	\$1,002,500

MOA = Municipality of Anchorage

CEA = Chugach Electric Cooperative

DOT = Alaska Department of Transportation

GFD = Girdwood Fire Department

ATU = Anchorage Telephone Utility

AWWU = Anchorage Water and Wastewater Utility

- a. debris clearance
- b. protective measures
- c. road systems (bridges)
- d. water control facilities
- e. building and equipment
- f. public utilities systems
- g. other



EPA KEY CONTACTS FORM

OMB Number: 2030-0020 Expiration Date: 06/30/2024

Authorized Representative: Original awards and amendments will be sent to this individual for review and acceptance, unless otherwise indicated.

Name:	Prefix	к:		First Name:	Dale			1	Middle Name:		
	Last I	Name:	Goodwin					<u> </u>	Suffix:		
Title:	Pres	sident							_		
Complet	te Ado	dress:									
Street	1:	P.O. I	3ox 1102								
Street	2:										
City:		Girdwo	ood			State:	AK: Alaska				
Zip / P	ostal (Code:	99587			Country:	USA: UNITE	ED STATES			
Phone N	lumbe	er:	9072298286				Fax Numbe	<u>r:</u>			Ī
E-mail A	ddres	<u>ss:</u>	goodwin256	@gmail.com							
Payee: /	ndivid	ual auti	horized to acce	ept payments.							
Name:	Prefix	K:		First Name:	Matthew			1	Middle Name:		
	Last I	Name:	Schechter						Suffix:		
Title:	Trea	asurer									
Complet	te Ado	dress:									
Street	:1:	P.O. I	Box 1102								
Street	2:										
City:		Girdwo	ood			State:	AK: Alaska]
Zip / P	ostal (Code:	99587-1102			Country:	USA: UNITE	D STATES]
Phone N	lumbe	er:	3128236518				Fax Number	<u>r:</u>			
E-mail A	ddres	<u>ss:</u>	matthew.d.s	schechter@gm	ail.com						
			ntact: Individu ing requests et		red Programs	s Office to co	ontact concernir	ng administ	rative matters	s (i.e., indirect cost rate	
Name:	Prefix	k:		First Name:	Dale			1	Middle Name:		
	Last I	Name:	Goodwin						Suffix:		
Title:	Pres	sident									
Complet	te Ado	dress:									
Street	:1:	P.O. I	3ox 1102								
Street	2:										
City:		Girdwo	ood			State:	AK: Alaska]
Zip/P	ostal (Code:	99587-1102			Country:	USA: UNITE	D STATES			
Phone N	lumbe	er:	9072298286				Fax Number	<u>:</u>			
E-mail A	ddres	<u>ss:</u>	goodwin256	@gmail.com							

EPA Form 5700-54 (Rev 4-02)

PREVIEW Date: Nov 21, 2024

EPA KEY CONTACTS FORM

Project Manager: *Individual responsible for the technical completion of the proposed work.*

Name:	Prefix:			First Name:	Kyle				Middle Name:	
	Last Na	me:	Kelley						Suffix:	
Title:	Service Area Manager, Muni of Anchorage									
Comple	te Addre	ess:								
Street	t 1 : P.	O. E	390 390							
Street	t2:									
City:	Gi	rdwc	ood			State:	AK: Alaska	l		
Zip/F	Postal Co	de:	99587-0390			Country:	USA: UNI	TED STATE	ES	
Phone Number:		907-343-837	74			Fax Numb	er:			
E-mail Address:		kyle.kelley	@anchorage	ak.gov						

OMB Number: 4040-0006 Expiration Date: 02/28/2025

SECTION A - BUDGET SUMMARY

Grant Program Function or	Catalog of Federal Domestic Assistance	Estimated Unobli	gated Funds	New or Revised Budget					
Activity	Number	Federal	Non-Federal	Federal	Non-Federal	Total			
(a)	(b)	(c)	(d)	(e)	(f)	(g)			
1. Glacier Valley Watershed Resilience Project	66.616	\$	\$	\$ 12,145,380.00	\$	\$ 12,145,380.00			
2.									
3.									
4.									
5. Totals		\$	\$	\$ 12,145,380.00	\$	\$ 12,145,380.00			

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SECTION B - BUDGET CATEGORIES

6. Object Class Categories		GRANT PROGRAM, FUI	NCTION OR ACTIVITY	Total
o. Object class dategories	(1)	(2)	(3) (4)	(5)
	Glacier Valley			
	Watershed Resilience Project			
	Project			
				_
a. Personnel	\$ 124,800.00	\$ [\$ \$	\$ 124,800.00
a. reisonnei	7			
b. Fringe Benefits				
b. Tringe benefits				_
a Travel	15,000.00			15,000.00
c. Travel			┦ └────┤ └───	_
d Fandamant	88,000.00			88,000.00
d. Equipment	88,000.00	<u>'</u>	J	
- Committee	15,000.00			15,000.00
e. Supplies	13,000.00		<u> </u>	
f 0tt1	2,061,000.00			2,061,000.00
f. Contractual	2,001,000.00		J	
. 0	9,580,000.00			9,580,000.00
g. Construction	9,580,000.00	<u>'</u>	J	9,580,000.00
				1
h. Other	40,000.00			40,000.00
				\$ 11 923 800 00
i. Total Direct Charges (sum of 6a-6h)	11,923,800.00		J	\$ 11,923,800.00
j. Indirect Charges	221,580.00		J	\$ 221,580.00
k. TOTALS (sum of 6i and 6j)	\$ 12,145,380.00	<u> </u>] \$	\$ 12,145,380.00
7. Program Income	\$	\$	\$ \$	\$
7.1.109.11.111001110				Chair double Forms 4244 (Day 7, 07)

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	SECTION C - NON-FEDERAL RESOURCES										
	(a) Grant Program				(b) Applicant		(c) State	(d) Other Sources		(e)TOTALS	
8.	8. Glacier Valley Watershed Resilience Project			\$	0.00	\$	0.00	\$	0.00	\$ [0.00
9.											
10.											
11.	11.										
12.	TOTAL (sum of lines 8-11)			\$	0.00	\$	0.00	\$	0.00	\$ [0.00
			SECTION D) - F	ORECASTED CASH NEED	S				•	
			Total for 1st Year		1st Quarter		2nd Quarter		3rd Quarter		4th Quarter
13.	Federal	\$	1,814,460.00	\$	392,857.00	\$	330,423.00	\$	273,673.00	\$	817,507.00
14. I	Non-Federal	\$[
15.	TOTAL (sum of lines 13 and 14)	\$	1,814,460.00	\$	392,857.00	\$	330,423.00	\$	273,673.00	\$	817,507.00
	SECTION E - BUDGE	TE	STIMATES OF FEDERA	L F	UNDS NEEDED FOR BALA	\N(CE OF THE PROJECT				
	(a) Grant Program						FUTURE FUNDING PER	RI	ODS (YEARS)		
					(b)First		(c) Second		(d) Third		(e) Fourth
16.	Glacier Valley Watershed Resilience Project			\$	1,814,460.00	\$	5,660,460.00	\$	4,670,460.00	\$[
17.											
18.											
19.											
20.	20. TOTAL (sum of lines 16 - 19)				1,814,460.00	\$	5,660,460.00	\$	4,670,460.00	\$	
	SECTION F - OTHER BUDGET INFORMATION										
21.	21. Direct Charges: 22. Indirect Charges:										
23. I	23. Remarks: For equipment purchases, we seek to purchase long-term river flow gages and air quality monitoring stations. Girdwood Inc will comply with all EPA restrictions on purchasing of data-collecting equipment utilizing funds from this grant.										

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Other Attachment File(s)

* Mandatory Other Attachment Filename:	Attachment A_ Project Budget Template Track 1.pdf
Add Mandatory Other Attachment Delete	e Mandatory Other Attachment View Mandatory Other Attachment

To add more "Other Attachment" attachments, please use the attachment buttons below.

Add Optional Other Attachment Delete Optional Other Attachment View Optional Other Attachment

Attachment A: Budget Template

Object Class Categories	Description	66.616 Environmental and Climate Justice Block Grant Program
a. Personnel		\$124,800
Girdwood Inc administration personnel	Job position: Program Director 20hr/Week - 1040hr/Year \$40/hr - \$41,600/Year	\$124,800
b. Fringe Benefits		\$0
c. Travel		\$15,000
Consultant travel	Out-of-state travel - consultants travel TO Girdwood, Alaska 2x Trips Budgeted, 2x travelers Flights: Average \$600/RT for West Coast travel to ANC Hotel/Stay: Average \$300/night x 7 Days Per Diem: \$75/day x 7 days Mileage: Estimated travel ~2,000 Miles Padding: 15% padding for additional expenditures related to travel Necessity based on lack of local contractors experienced in geomorphology and glacial alluvial watershed management	\$15,000
d. Equipment		\$88,000
Stream gage stations, x3	Direct equipment cost, installation noted as "monitoring site installations" Useful life: 30+ years Direct equipment cost, installation noted as "monitoring"	\$66,000
Air monitor station	site installations" Useful life: 30+ years	\$22,000
e. Supplies	Tangible outreach supplies; Outreach, facilities rental, printing & signage for community meetings	\$15,000
f. Contractual		\$2,061,000
Project management	Project Manager contract with Municipality of Anchorage, Girdwood Valley Service Area	\$340,000
Civil engineering	Engineering and design for extraction sites and refortification of critical infrastructure Years 1-3, Competitive	\$350,000

	Data research and hydrologic data	
	Stable stream measurement	
	Flood sediment collection and analysis	
	Identify OHW and topo project reach	
	Geomorphic channel design Entity permitting meetings (virtual)	
	Bid document preparation	
Watershed study	Years 1-2, Competitive	\$276,000
	In-field analysis of material within watershed to	
Geo material assessment	determine project sites	\$77,500
Geo material assessment	Year 1, Competitive	777,300
	Gravel extraction operation plan to determine operational feasibility and use of selected project sites	
Operational Impact Assessment	Year 1, Competitive	\$50,000
	Navigation, application, and research for permitting	
	needs, access needs, and environmental impact on	
5	project sites	4400 000
Permitting, access, impact	Years 1-2, Competitive	\$430,000
	Assist with informing community members and collecting	
Community engagement facilitator	community feedback throughout the grant period Years 1-3, Non-competitive micropayment	\$7,500
7 0.00	Installation of 3x stream gages and 1x air monitoring	, ,
	station	
Monitoring site installations	Year 1, Competitive	\$45,000
	High-resolution drone mapping, bathymetric surveys,	
	and GIS data delivery (orthomosaic maps, DTMs, DSMs)	
Geospatial Mapping and Surveying Services	for watershed analysis and resiliency planning. Year 1, Competitive	\$85,000
Geospatiai Mapping and Surveying Services	 	
	Third-party compliance and performance review on grant progress	
Accounting, Compliance & Performance review	Estimated at \$50,000	\$50,000
	Third-party audits on financial and grant performance	
Audits	Estimated at \$25,000 per \$750,000 in award	\$350,000
g. Construction		\$9,580,000
	Excavation of material settling ponds below canyon and	
	above airport to capture gravel before deposition in the	4
Plunge pool structure, habitat development	lower channels	\$2,150,000
	Construction of a new replacement culvert on Alyeska	
	Creek at Mt. Hood Road that meets fish passage standards and is sized to meet flood calculations for the	
	area.	
Mt Hood Drive fish culvert	Mt Hood Drive provides direct access to project site	\$1,200,000
	Material for road service area repairs to neighborhood	
Davos Drive grade uplift	access road along Glacier Creek	\$600,000

Airport armor along Glacier Creek	Refortification of Airport levee located near project site	\$375,000
Wellhouse protection	Refortification of community wellhouse located near project site	\$90,000
Sewer plant protection	Refortification of wastewater plant located near project site	\$125,000
Gravel extraction, classification, lower valley	Establish lower Glacier Creek river channels	\$800,000
Gravel extraction, site remediation for transportation and access	Direct costs for remediation of access roads for access to project site(s)	\$400,000
Material transport	Material transport within Girdwood Valley between extraction and infrastructure receiving refortification	\$55,000
Reconstruct lower valley levee	Reconstruction of the Old Girdwood levee to prevent flooding a disadvantaged community	\$535,000
Reconstruct California Cr levee	Refortification of levee near elementary school, post office, police department, and phone/internet servers and office	\$250,000
Alyeska and Tanaka Creek fish passages and flood reduction culvert improvements	Multiple culverts on Alyeska Creek and Tanaka Creek drainages, both part of the Glacier Creek Watershed, don't meet flood and fish passage standards. To prevent washout, increase watershed resilience, and allow fish passage, new engineered culverts will be installed and fortify existing creek crossings at Banff Rd, Arlberg Dr, Alyeska View Ave, Vail Dr, Timberline Dr, and Alta Dr to improve drainage and reduce flooding potential. Roads provide direct access to project areas.	\$3,000,000
h. Other		\$40,000
Gage site operations	Operations, management, and maintenance of stream gages and air monitoring station \$20,000 a year / phases 2 & 3	\$40,000
i. Total Direct Charges		\$11,923,800
j. Indirect Charges		\$221,580
overhead 10% de-minimus	Calculated on 10% de-minimus rate on personnel, contractual, supplies, & travel	\$221,580
k. Total		\$12,145,380

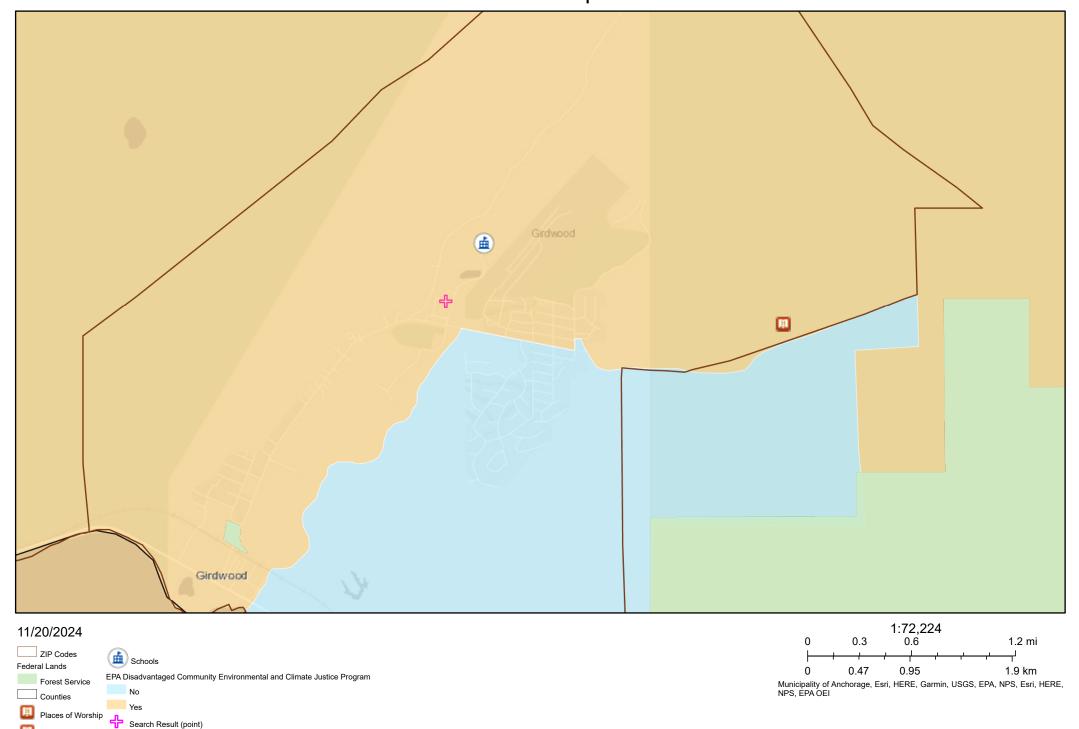
Attachment D: Project Area Map

Please find the attached JSON file from EJScreen (AttachmentD_MapFile.json) and the attached PDF of the project area (AttachmentD_Map.pdf).

The disadvantaged community that will benefit from this project is Girdwood, Alaska. Located 40-miles from Anchorage, Alaska on the Seward Highway, Girdwood is located within Glacier Valley and the watershed of Glacier Creek. Girdwood is known for being the northern most temperate rainforest in the United States and receives 71 inches of rainfall per year.

The Glacier Valley Watershed Resiliency Project is wholly contained within the Girdwood Community, and the effects of the program will benefit all residents within the Girdwood Community. Girdwood is recognized as an EPA IRA Disadvantaged Community. As noted in the project narrative, all items within the budget seek to remediate climate change related effects in the valley, most notably flooding, for disadvantaged residents.

A4 Landscape



PREVIEWSPHALE: Nov 21, 2024

Attachment H: Compliance Plan

To ensure full legal compliance with the grants terms and conditions, and ensure compliance with U.S. Federal Code, Girdwood Inc. has compiled the following compliance plan for internal funds and financial management.

Treasury

Girdwood Inc. maintains all funds held on behalf of the organization at Global Credit Union ("Global"), which is insured by NCUA. Girdwood Inc. maintains two checking accounts with Global. One checking account is for day-to-day activities conducted by the Round House Museum, the primary fundraising vehicle for Girdwood Inc. The second checking account is used to hold grants and donations intended for specific activities within the Girdwood community, in addition to paying for overhead costs at Girdwood Inc.

Disbursements of grants and donations are made by program managers to Girdwood Inc. Invoices are required to be provided. Any check to be written greater than \$500 requires two signatures. There are currently five signatories for checks: the President, Vice President, Treasurer, Secretary and Director of the Roundhouse.

Cash balances for the accounts at Global used for the receiving and disbursements for grants and donations are reconciled at least monthly by the Treasurer of Girdwood Inc. to our Quickbooks accounting ledger.

Should Girdwood Inc. receive this grant, a new and separate bank account will be established at Global Credit Union to deposit the grant to prevent commingling these grant funds with other grant funds and donations. Deposits would be made directly to this account. Disbursements based on requests by the program manager would be made from this account.

Any unusual activity requiring further attention will be raised by the Treasurer of Girdwood Inc. with the President of Girdwood Inc. and Program Manager for discussion and resolution.

Accounting

Girdwood Inc maintains all accounting using Quickbooks. Accounting records which cover activities of the Round House Museum are handled by the Director for the Round House. Accounting records which cover the activities of donations and disbursements of grants and donations are handled by the Treasurer of Girdwood Inc.

Accounting records for the Round House are maintained on a desktop version of Quickbooks which resides on a dedicated laptop belonging to Girdwood Inc.

Accounting records for Girdwood Inc exclusive of the Round House are maintained on a web-based version of Quickbooks which require dual-factor authentication to access. The President, Treasurer, and third-party tax accountant, Thomas & Thomas CPA, have access to the web-based version of Quickbooks. Accounting records are updated continuously by the Treasurer of Girdwood Inc as journal entries are required. Invoices are attached with each disbursement to provide an audit trail for review.

Financial statements are prepared annually and provided to the Board, as well as our third party-tax accountant for review. Thomas & Thomas CPA prepare Form 990 filed annually with the IRS with review by the Treasurer.

Should Girdwood Inc. receive this grant, Girdwood Inc will continue to use Quickbooks web-based software to maintain all books and records. Accounting for this grant would be maintained by the Treasurer and updated continuously for activity.

Any unusual activity requiring further attention will be raised by the Treasurer of Girdwood Inc. with the President of Girdwood Inc. and Program Manager for discussion and resolution.

Budgeting

Budgeting will be conducted by the Program Manager including the utilization of third-party vendors to conduct activities with grant funds. The Treasurer will provide all necessary information to the Program Manager to reconcile actual spending with budgeted spending to ensure that the appropriate vendors are being paid for services rendered related to the grant.

Auditor

Girdwood Inc. currently does not have a third-party audit firm conduct an annual audit. Should a grant be approved contingent upon the need for audited financial statements, Girdwood Inc would look to hire a firm to conduct the required tests to attest whether Girdwood Inc presented financials fairly in all material respects.

The following attachment is not included in the view since it is not a read-only PDF file.

Upon submission, this file will be transmitted to the Grantor without any data loss.

AttachmentD_MapFile.json

The following attachment is not included in the view since it is not a read-only PDF file.

Upon submission, this file will be transmitted to the Grantor without any data loss.

Attachment B_Partnership Agreement.pdf

Attachment E: Community Engagement and Collaborative Governance Plan

Community Engagement Plan Implementation: Girdwood Inc., in partnership with the Girdwood Board of Supervisors (GBOS) and the Girdwood Housing and Economic Committee (GHEC), will implement a multi-layered Community Engagement and Collaborative Governance Plan to ensure this project is community-driven and reflects Girdwood's collective environmental justice goals.

1. Past Community Outreach and Engagement Conducted:

- Longstanding Engagement Practices: GBOS, as Girdwood's statutory body, has
 over 50 years of experience in representing the community's interests and
 challenges. Monthly public meetings, both in-person and online, provide a
 regular platform for residents to address concerns related to environmental
 justice, infrastructure, and housing challenges. This history of open, accessible
 meetings has informed the scope and approach of the Glacier Creek Gravel
 Remediation Project, ensuring alignment with community-identified needs.
- Community-Driven Project Origin: This project was developed in response to documented concerns about the safety of Glacier Creek Bridge, increasing flood risks, and Girdwood's housing needs. Extensive community feedback sessions revealed an overwhelming need for a locally sourced gravel solution to stabilize the creek, protect critical infrastructure, and mitigate further flood risk impacts. This proactive approach leverages previous community input and positions the project as a solution to urgent environmental and social issues.

2. Methods for Engagement and Transparency:

- Transparent Communication Channels: To foster broad community involvement, Girdwood Inc. will continue utilizing established communication channels, including monthly GBOS and GHEC meetings, social media updates, and the Girdwood Community Newsletter. Transparent reporting on project progress will be provided quarterly, emphasizing key metrics such as reduced flood risk and sediment extraction improvements. These updates will also inform the community about project benefits, the mitigation of environmental risks, and progress in meeting EPA objectives.
- Community Feedback Mechanisms: A project-specific feedback form will allow residents to provide ongoing input and voice concerns or suggestions about the project. Feedback will be reviewed monthly GHEC to adjust project implementation as needed, ensuring that community input directly shapes project decisions.

3. Mitigating Barriers to Participation:

 Overcoming Logistical Challenges: As Girdwood is geographically distant from Anchorage, where many governing bodies hold meetings, Girdwood Inc. will

- conduct all project-related meetings locally to facilitate accessibility. We will provide options for remote participation.
- Inclusive Access Initiatives: To address barriers related to language, childcare, and/or transportation, project updates will be accessible across various formats, including printed materials, online updates, and recorded meeting videos to reach diverse community members.

4. Government and Stakeholder Involvement:

 Coordination with Anchorage and State Authorities: In response to the challenges of limited local governance authority, Girdwood Inc. and GBOS will maintain close collaboration with the Municipality of Anchorage, state departments, and the Alaska Department of Transportation. Regular intergovernmental coordination meetings will address permitting, planning, and regulatory needs to ensure alignment across all levels of governance.

Collaborative Governance Structure: The governance structure for this project will integrate input from Girdwood Inc., GBOS, GHEC, and community representatives, creating an inclusive and accountable framework for project implementation.

1. Roles and Responsibilities:

- Lead Applicant/CBO (Girdwood Inc.): Responsible for overall project management, reporting, and ensuring community engagement objectives are met.
- Collaborating Entities (GBOS and GHEC): GBOS will manage the local governance interface, engaging with Anchorage authorities, while GHEC will focus on integrating economic and housing benefits into the project.
- Community Residents: All meetings of the CBO and collaborating entities are publicly noticed and accessible in-person and online. All meetings of the collaborating entities are bound by the Alaska Open Meetings Act, requiring strict practices for meeting publication, quorum, accessibility, and recordings. All community members will be encouraged to attend project meetings.

2. Decision-Making and Accountability:

 Transparent Decision-Making: Decision-making will follow a structured process where Girdwood Inc. and its partners review feedback, assess regulatory needs, and make project decisions in a collaborative and transparent manner. Monthly meeting notes will be published to maintain accountability.

The Community Engagement and Collaborative Governance Plan is structured to ensure that this project remains rooted in community-driven priorities, effectively manages stakeholder relationships, and meets the grant's and EPA's objectives for environmental justice, equity, and resilience. Through transparent and inclusive engagement, the project will empower Girdwood to address our unique climate resilience challenges in a sustainable and equitable way.

Attachment F: Community Strength Plan

Maximizing Economic Benefits

The Glacier Valley Watershed Resilience Project will bring multiple economic benefits to Girdwood, providing residents and local businesses with new opportunities, cost savings, and resilience-enhancing resources.

• Business Opportunities and Local Economic Growth:

- Gravel extracted from Glacier Creek will be utilized by local contractors and construction projects, reducing the need for gravel transport from Anchorage (40 miles away). This will foster economic activity locally, supporting Girdwood's small businesses by shortening the travel distance to under three miles to access the entire Girdwood Valley, lowering operational costs, and providing a competitive advantage for local businesses.
- Additionally, extracted gravel can be sold to contractors for various infrastructure projects, such as road sanding and maintenance during the extended winter season (approximately six months each year). This initiative will reduce diesel emissions from heavy truck traffic, improve air quality, and foster a healthier environment for residents.
- To further encourage community-based business growth, the project will conduct outreach to local contractors and businesses, ensuring that disadvantaged business enterprises (DBEs) and local vendors have equitable access to these economic opportunities, in line with EPA's DBE Rule (40 CFR Part 33).

Job Creation and Skill Development:

- This project will directly create local jobs related to gravel extraction, watershed management, and infrastructure fortification. To support long-term community benefits, the project will demonstrate development in erosion control, flood management, and environmental sustainability, equipping community members with essential knowledge for Girdwood's unique environmental resilience challenges.
- Employment for project-related construction activities will meet prevailing wage rates under the Davis-Bacon Act, ensuring high-quality job standards that support fair wages, benefits, and work conditions.

Financial Savings for Local Government and Residents:

 By sourcing gravel locally, the project will significantly reduce the costs for road maintenance materials, saving the Girdwood Board of Supervisors (GBOS) substantial funds annually on gravel procurement. Currently, road maintenance requires gravel transport over a 40-mile distance, which is both costly and fuel-intensive. Local sourcing will cut transportation costs by 95%,

- providing immediate financial savings for Girdwood residents by reducing the tax burden for essential road maintenance.
- Furthermore, the gravel supply will be used to reinforce critical infrastructure, such as fish culverts, levees and bridges, reducing flood repair costs for homeowners and preventing costly damage to properties near flood-prone areas. These cost-saving measures will contribute to community resilience and improve the affordability of local infrastructure maintenance.

Displacement Avoidance

Girdwood's economic and housing landscape is particularly vulnerable to displacement pressures, which could be exacerbated by rising living costs and infrastructure upgrades. The Community Strength Plan includes targeted measures to mitigate displacement risks and ensure that Girdwood's current residents can remain and benefit from the project's economic and environmental improvements.

Mitigating Displacement Risks in Housing:

- The project directly addresses housing affordability by reducing local construction costs through locally accessible gravel and watershed management materials, which will be provided to contractors at a set rate. These cost reductions will enable more affordable development, particularly in housing.
- Gravel extracted from Glacier Creek will be used to stabilize infrastructure in flood-prone areas, including the levee near Old Girdwood at Mile 0 of the Alyeska Highway. The levee has historically eroded, and has not received the costly repairs necessary to mitigate flooding risks that threaten the housing security of residents in this area. By ensuring long-term levee stability, this project will protect the affordability and stability of housing for vulnerable residents near this critical infrastructure point.

• Environmental Justice and Community Resilience:

- Girdwood's vulnerability to flooding disproportionately affects its full-time resident population. By implementing and fortifying sustainable flood mitigation and erosion control measures, the project directly supports environmental justice by reducing climate risks for Girdwood's full-time residents in disadvantaged communities. With extracted gravel to reinforce critical infrastructure, the project will lower long-term costs and the risk of displacement from flood-related hazards.
- The proposed Climate Action and Pollution Reduction strategies will further
 mitigate displacement risks by supporting economic stability, improved air
 quality, and reduced material transportation costs. These measures align with
 the principles of Executive Order 14096 by fostering a sustainable, resilient
 community that safeguards residents against the economic impacts of
 environmental hazards.

In summary, the Community Strength Plan aligns with the goals of environmental and climate justice, ensuring that Girdwood's residents benefit economically, that local businesses thrive, and that existing residents are safeguarded against the unintended consequences of infrastructure improvements. By prioritizing long-term affordability and stability, the plan reinforces Girdwood's commitment to sustainable community resilience, enhancing both economic and environmental security for all residents.

Attachment G: Readiness Approach

To ensure the successful initiation and completion of the Glacier Valley Watershed Resilience Project within the three-year grant period, we have developed a comprehensive readiness approach addressing key considerations:

Milestone Schedule and Phased Approach

As described in the project narrative, section B.2.4 Programmatic and Managerial Capability and Resources, the following phased approach will be implemented upon the award of the grant.

Phase 1 (Months 1-12): Preliminary Planning, Permitting, and Initial Gravel Extraction

- Permitting and Assessments: Initiate applications with the Alaska Department of Environmental Conservation, Alaska Department of Natural Resources, and U.S. Army Corps of Engineers for floodplain modification and gravel extraction.
- **Data Gathering**: Install instrumentation for stream gauging, define river reach parameters, and conduct material sampling for sustainable gravel harvest design.
- **Gravel Extraction Pilot**: Extract 10,000 cubic yards of gravel to reinforce the Old Girdwood levee and California Creek flood diversion structures, reducing immediate flood risks.
- Community Engagement: Host two public meetings to discuss project plans, gather feedback, and address safety concerns.
- **Outcomes**: Establish regulatory compliance, develop a comprehensive alluvial management design, and build community support.

Phase 2 (Months 13-24): Full-Scale Gravel Extraction and Green Infrastructure Implementation

- **Engineering and Design**: Finalize an alluvial management system design with integrated salmon habitat restoration.
- **Expanded Gravel Extraction**: Extract additional material to reinforce critical infrastructure, including bridges, levees, and municipal facilities such as water and waste systems.
- **Infrastructure Deployment**: Install green infrastructure, including bioswales and permeable pathways, to enhance flood resilience and reduce runoff.
- **Outcomes**: Provide sustainable materials for public infrastructure protection, reduce air pollution, and foster local environmental stewardship.

Phase 3 (Months 25-36): Monitoring, Data Collection, and Evaluation

• Monitoring: Implement water and air quality monitoring systems to measure reductions in particulate pollution and diesel emissions.

- **Final Evaluations**: Conduct an evaluation of the project's flood mitigation effectiveness and community resilience improvements using quantitative and qualitative metrics.
- **Public Engagement**: Share project outcomes, lessons learned, and recommendations in a community meeting.
- **Outcomes**: Demonstrate measurable air quality improvements, increased flood resilience, and enhanced public health.

Government Approvals

Initial steps as outlined in the milestone schedule include obtaining necessary permits for sediment extraction from the Glacier Creek. We anticipate that the project may require some or all of the permits and approvals listed. As noted in the milestone schedule and the project budget, we have accounted for the necessary time and expense to obtain necessary permits and approvals.

- Alaska Department of Natural Resources (AKDNR): While all gravel removal is
 intended to be accessed from Municipal-owned lands, a Material Sales Contract will
 be necessary for the extraction of gravel from state streams. This contract outlines the
 terms and conditions for material extraction and ensures compliance with Alaska
 state regulations.
- Alaska Department of Environmental Conservation (ADEC): A Multi-Sector General Permit (MSGP) for Stormwater Discharges is required to manage stormwater runoff during extraction activities, protecting water quality.
- U.S. Army Corps of Engineers: A Section 404 Permit is needed if the project involves discharging dredged or fill material into waters of the United States, including wetlands. While discharge is not intended to occur, we have factored this in as a potential necessity for completion of the grant.
- Municipality of Anchorage (MOA): Local land use permits and approvals from the MOA Heritage Land Bank are necessary, as the project site on Glacier Creek is managed by this entity.

We have allocated a portion of the project budget for research, environmental impact studies, and the preparation of necessary documentation to expedite the permitting process. We will engage with the relevant agencies immediately upon award to secure these approvals promptly.

Federal Requirements for Construction Projects

- Davis-Bacon and Related Acts Compliance: We will incorporate clauses in all
 construction contracts mandating adherence to prevailing wage requirements as
 stipulated by the Davis-Bacon Act. Contractors will be required to submit certified
 payrolls to ensure compliance.
- Build America, Buy America (BABA) Compliance: We will develop a compliance plan to meet BABA requirements, ensuring that all iron, steel, manufactured products, and

construction materials used in the project are produced in the United States. This plan will include:

- Identifying and sourcing materials from domestic manufacturers.
- Including BABA compliance clauses in procurement documents.
- Training procurement and project management staff on BABA requirements.

Alignment with Existing Plans

The project aligns with the Turnagain Arm Comprehensive Plan, particularly in areas related to watershed management and environmental protection. The plan emphasizes the importance of maintaining natural hydrological systems and mitigating flood risks, objectives that are central to our project.

Key Personnel and Organizational Capacity

The project will be managed by Kyle Kelley, the Girdwood Town Manager, who brings decades of experience coordinating with the Municipality of Anchorage (MOA), Girdwood Inc., and the Girdwood Housing and Economic Committee (GHEC). His extensive knowledge of community resources and ability to manage complex projects ensures effective oversight of grant implementation. Additionally:

- Girdwood Inc. has a proven record of managing infrastructure projects and grant funding.
- The MOA provides oversight and federal grant management support, ensuring compliance with reporting, financial, and regulatory requirements.
- The Girdwood Board of Supervisors (GBOS) has demonstrated capability through its successful management of the FEMA-supported Typhoon Oscar disaster recovery project in 1995, which involved removing 40,000 cubic yards of gravel to mitigate flood impacts and restore critical infrastructure (Appendix B).

Site Control

The project site is owned and managed by the Municipality of Anchorage Heritage Land Bank (HLB). Girdwood Inc and the Girdwood Board of Supervisors maintain a positive and impactful relationship with the Municipal land bank. We will collaborate with HLB to secure the necessary access agreements or leases, ensuring legal access to the site for project activities. Initial discussions with HLB regarding this project have been positive, and we anticipate formalizing agreements promptly upon grant award.

Operations and Maintenance

We will develop a comprehensive Operations and Maintenance (O&M) Plan to ensure the sustainability of the project's infrastructure investments. This plan will include:

- Routine Maintenance Procedures: Establishing schedules and protocols for regular inspections and maintenance of flood mitigation structures.
- **Funding Mechanisms:** Identifying funding sources, such as Girdwood Service Area budgets or special assessments, to cover ongoing O&M costs.
- **Responsibility Assignments:** Defining roles and responsibilities for O&M activities among municipal departments and stakeholders.

By addressing these readiness considerations, we are committed to initiating project activities within 120 days of award and completing the project within the designated three-year period.