

Agreement for Collaboration

This Agreement for Collaboration ("Agreement") is made effective as of the last date signed by the parties below ("Effective Date"), by and between the Wildfire Research ("WiRē") Center and Kenai Peninsula Borough Office of Emergency Management, Nikiski Fire Service Area; Cooper Landing Emergency Services; and Central Emergency Services, Funny River – hereinafter referred to as the "Partner." The WiRē Center and the Partner will work together to implement the WiRē approach.

Recitals

The [Wildfire Research Center](#) (WiRē Center) is a 501(c)(3) dedicated to working with wildfire practitioners seeking to create communities that are adapted to wildfire. Historically, immediate threats and wildfire response have garnered much attention and extensive resources. While these efforts remain critical, getting in front of the problem by promoting pathways to fire adaptation is of paramount importance. Fire adaptation is about living with wildfire. It's about creating safe and resilient communities that reduce wildfire risk on properties before a fire, and supporting effective response when fires threaten a community. It is also about allowing fire on the landscape when it is safe to do so.

The mission of the WiRē Center is to support evidence-based community wildfire education efforts so that communities can live with wildfire. Specifically, the WiRē Center provides personalized expertise and support to collect, interpret, and use paired parcel-level wildfire risk and social data. The WiRē Approach enables partners to effectively allocate resources and engage with residents. Leveraging lessons learned across projects, the WiRē Center pursues scientific approaches to inform conversations and decisions about wildfire adaptation.

To our knowledge, the WiRē Center is the only organization working with wildfire practitioner partners to pair wildfire risk and social data. The key elements of the WiRē approach distinguish it from other community wildfire adaptation efforts:

- Our work is based on a long-term, research-practitioner collaboration where researchers and practitioners contribute equally to the research agenda, methods, and questions. Through this iterative process the approach continues to evolve and adapt while maintaining a central focus on creating tools and information for effective science-based wildfire education programs.
- The systematic WiRē approach focuses on all private land parcels with a primary residential structure within a community. The holistic community approach is a notable departure from opportunistic wildfire education programs that focus substantial effort on a few community residents.
- The approach is premised on the underlying philosophy that wildfire practitioners are able to develop better programs if they participate in the data collection process

and share the results with their partners and communities. Local practitioners collect the data, map results, and tailor their wildfire risk education programs. WiRē provides support and tools to streamline and assure the data collection efforts conform to best scientific practices, as well as expertise to summarize and analyze the social data.

Over the last decade, we have implemented this systematic data collection across diverse communities in Colorado, Utah, Oregon, New Mexico, Washington, and Wyoming (nearly 100 communities to date) and are maintaining an ever-growing database that can provide insights into how individual and community diversity across space and time relate to wildfire adaptation. Critically, our data also fuels academic research that expands our scholarly approaches to understanding this natural resource and public safety dilemma.

For good and valuable consideration, the receipt and sufficiency of which is acknowledged, the Parties agree as follows:

1. **Title.** The title of this program is “Implementing the WiRē Approach with Kenai Peninsula Borough Office of Emergency Management, Nikiski Fire Service Area; Cooper Landing Emergency Services; and Central Emergency Services, Funny River in 2023.”
2. **Purpose.** The purpose of this Agreement is to document the cooperation between parties. The WiRē Center and the Partner will work together to implement the WiRē approach according to the Scope of Work (*Exhibit A*). While this agreement outlines the tasks and timeline for this specific project, there may be opportunities for the WiRē Center and Partner to work together on additional projects in the future.
3. **Scope of Work.** *Exhibit A* attached hereto and incorporate herein by reference details the scope of work for the various tasks associated with this Partnership Agreement. Note that some of the tasks will occur concurrently. *Exhibit C* attached hereto and incorporated herein by reference provides a detailed timeline for each of the tasks. *Exhibit D* attached hereto provides a graphic reference to the Scope of Work.

Exhibit A. WiRē and Partner Scope of Work

Project Setup

- A1. Attend planning calls. The Partner and WiRē will schedule calls as needed to sort through the technical and logistical aspects of implementing the WiRē approach. Engagement on these calls is critical to the success of this partnership.
- A2. Review the standard WiRē rapid assessment and household survey. WiRē will provide the latest rapid assessment form and household survey for the Partner to review. WiRē and the Partner will tailor the rapid assessment attributes that require community-specific inputs and ensure the associated household survey questions (section 3) are parallel to the rapid assessment attributes and categories. A key element is to make sure the Partner can clearly communicate the rapid assessment attributes to the community. WiRē will allow for modifications of the standard WiRē rapid assessment and household survey that (a) do not conflict with systematic data collection across space and time, (b) are

Exhibit A. WiRē and Partner Scope of Work

negotiated before WiRē completes item #B1. As part of this conversation, WiRē and the Partner will discuss how the Partner plans to communicate, if at all, the information back to the community.

- A3. Obtain Kenai Peninsula Borough Assessor data. The Partner will provide the most current parcel polygon data (including the ownership and address info) from the Kenai Peninsula Borough Assessor's Office. The assessor data is at the heart of the WiRē Approach because it allows for systematic data collection. The WiRē Approach uses the assessor data to mail to all residential homeowners in the study area.

- A4. Identify the study area and sub-communities. WiRē and the Partner will work together to determine how to define the study area. The WiRē Approach involves conducting a census of all residential parcels in the study area. The study area is a geographic area that can be a single polygon or series of polygons. It is defined by a combination of biophysical, sociodemographic, and wildfire risk characteristics. The Partner may also want to divide the study area into sub-communities (hereinafter referred to as WiRē communities) to compare data across WiRē communities. WiRē and the Partner will write a statement about why and how the study area and WiRē communities were selected.

The study area for this project is approximately 305 residential parcels in Cooper Landing Emergency Services; 783 residential parcels in Central Emergency Services, Funny River; and 2,267 residential parcels in the Nikiski Fire Services Area (see Exhibit B).

Cooper Landing

The community of Cooper Landing is within Chugach National Forest, which annually experiences some level of wildfire threat that continually encourages residents' awareness and the need to remove hazardous fuels within the WUI intermix. Their mitigation efforts began as a fledgling Firewise effort in 2014 among private property holdings working in collaboration with the State Division of Forestry and the Kenai Peninsula Borough. Fast forward and today the community is actively engaged in shared mitigation projects to reduce the threat of wildfire. The residents also actively provide public input on area restoration projects completed in the Chugach National Forest or the adjacent Kenai National Wildlife Refuge bordering the community's western border. Their activism and public engagement immediately brought them to the forefront as a WiRē community.

Funny River

The community of Funny River is surrounded by the Kenai National Wildlife Refuge and have created successful contributions to defensible space projects through the years. This prevention-based mindset was largely influenced by the 2014 Funny River Horse Trail Fire when evacuation measures were challenged due to the one road in and out of the community. In 2021, their interaction with the Community Wildfire Protection Plan process cultivated the importance of reducing hazardous fuels. Residents' commitment and interest to the CWPP process placed themselves in a prime timeframe to transition from planning into completing projects through the use of the WiRē core concepts.

Nikiski

The community of Nikiski is rated one of the highest, fire risk-prone communities on the Kenai Peninsula with extreme fuel loads mixed with grasslands, old growth trees, jackstraw, and the resurgence of beetle infestation that have killed stands of White and Lutz spruce trees. Combine this landscape with minimal defensible space projects, and the challenge becomes a complexity of perceptions and limited awareness. What seems like a daunting process to initiate a defensible space program at the ground level, key stakeholders are willing to build a solid foundation to create buy-in

Exhibit A. WiRē and Partner Scope of Work

and participation to complete mitigation projects that will protect the community of Nikiski. The WiRē best practices and implementation strategies will assist in creating that foundation.

- A5. Assign a unique id to each parcel in the Kenai Peninsula Borough assessor dataset (WiReID). WiRē will assign a unique id (WiReID) to each parcel in the Kenai Peninsula Borough assessor dataset, as well as an indicator variable for those parcels identified as being part of the study area in item #A4.
- A6. Create mailing list for residential parcel owners. Once the Partner has selected the study area, WiRē will create the mailing list from the Kenai Peninsula Borough assessor database for the study area. The mailing list will comprise names and addresses of parcel owners. WiRē will create rules to determine how to manage the mailing process most efficiently, such as determining how to proceed when someone owns multiple parcels.

Rapid Assessments

- B1. Create the geodatabase and rapid assessment data collection app. WiRē will provide support to the Partner to create a geodatabase in ArcGIS, based on the local Kenai Peninsula Borough parcel ownership data, and publish a data collection tool. WiRē and the Partner will test the data collection tool prior to Partner collecting rapid assessment data in the field. The Partner will need to provide data collection tablets that are GPS enabled (Apple or Android) to collect the rapid assessment data.
- B2. Tailor and send initial letter to introduce the rapid assessment and household survey to residential homeowners in the study area. WiRē will provide a template of the introductory letter that the Partner will mail to all residential parcels in the study area prior to conducting the rapid assessment and administering the household survey. The Partner will tailor this letter to make it specific to the region and the organization.

In addition to the initial letter, WiRē and Partner will collaborate to develop other community outreach tools to build awareness of the project and help make a case for why participation is important. Examples include a bulletin on OEM, FPD websites, newsletters, and Facebook.

- B3. Provide training on the RA data collection process and app. WiRē will provide in-person training to all Partner staff and/or volunteers who will conduct the rapid assessments. During this training, WiRē and the Partner will collaborate to develop an Assessment Reference Guide (ARG) for use during the rapid assessment data collection effort. WiRē will provide a generic copy of the ARG, and the Partner will provide the details to make it specific to local conditions. The Partner will participate in the training and provide GPS-enabled tablets to collect the data.

The training for volunteers, which will be more involved than trainings WiRē provides to wildfire practitioners, including both remote and in-person sessions. These trainings will also include multiple opportunities to assess inter-assessor reliability and consistency. WiRē team members have a great deal of experience in data collection training, including training people without subject matter expertise. We will also develop a pocket guide to data collection that will have a section for local information, and WiRē's Wildfire Mitigation Specialist will be available to answer questions from volunteers during data collection.

- B4. Conduct rapid assessments. The Partner will conduct the rapid risk assessment in the defined study area (see item #A4). WiRē will provide technical support and guidance throughout this process. The Partner will manage its staff and volunteers to complete the data collection.

Exhibit A. WiRē and Partner Scope of Work

Household Survey

- C1. Clean the mailing list for household survey administration. Conducting the rapid assessments before administering the household survey allows WiRē to only send household surveys to parcels that have a residential structure on them. Furthermore, the initial letter is sent out via first class mail, which allows WiRē to track “bad” addresses (i.e., addresses that are undeliverable) and remove those addresses from the household survey mailing list. WiRē will track and remove the undeliverable mail and will remove non-residential parcels from the mailing list.
- C2. Develop household survey administration procedures. WiRē and Partner will identify a print shop who will print, compile survey packets, and apply postage to the various mailings. WiRē will work with the Partner to determine who will (1) be the point of contact on the correspondence materials (name, phone number, and email), (2) sign the correspondence materials, and (3) receive the completed surveys. Based on the selected print vendor, WiRē and Partner will determine who will manage the returned and completed survey tracking spreadsheet. If completed surveys are returned to an Alaska address, Partner will need to send completed surveys back to WiRē at the end of household survey data collection.
- C3. Review and finalize household survey and correspondence materials. WiRē and the Partner will finalize all sections of the household survey (other than section 3, which we will finalize before conducting the rapid assessments. See item #A2 regarding making modifications to the rapid assessment/household survey). The Partner will provide a landscape photo representing the study area to include on the front cover of the household survey. WiRē will provide templates for the various correspondence materials, which include a cover letter for the 1st survey package, a reminder/thank you postcard, and a cover letter for the 2nd survey package. The Partner will tailor these templates to make them specific and relevant to its objectives and programs.

All data household data collection procedures will be conducted in accordance with University of Colorado Institutional Review Board's Human Subjects rules. For the purposes of this project, this means that survey cover letter will identify CU as a project partner and the back of the cover letter will enumerate study participant rights.

- C4. Administer the household survey. The administration of the household survey is funded by a National Science Foundation grant awarded by the University of Colorado to Dr. Hannah Brenkert-Smith. As the project lead on this award, Dr. Brenkert-Smith will work with the WiRē Project Manager to oversee and coordinate the household survey administration. Exhibit F details who will provide funding for the administration of the household survey. The household survey administration involves three mailings: (1) the 1st survey package, (2) a reminder/thank you postcard, and (3) the 2nd survey package. Depending on the household administration procedures developed in C2, WiRē Project Manager or Partner will track the returned and completed surveys in a spreadsheet. WiRē will produce all the mailing lists for each mailing and will determine when to send out the individual mailings.

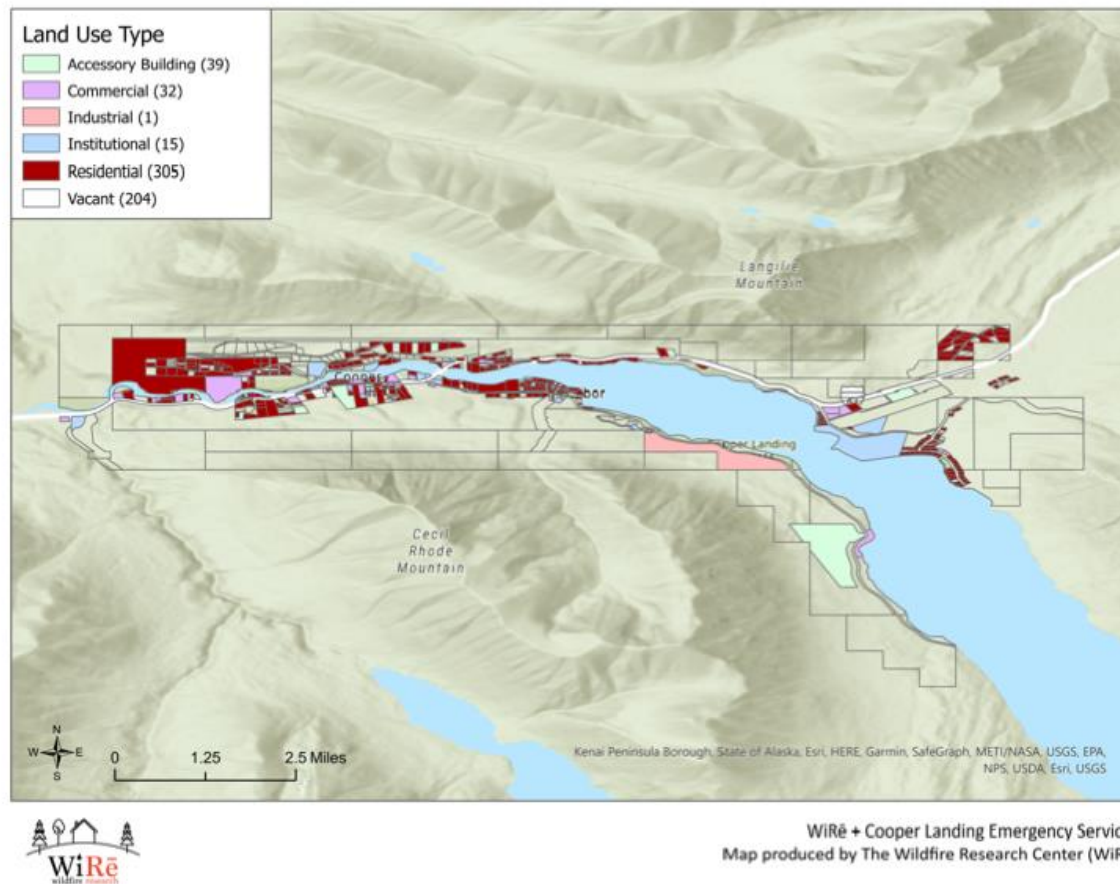
Exhibit A. WiRē and Partner Scope of Work

Data and Reporting

- D1. Process data and present preliminary results from rapid assessment. Upon completion of the rapid assessment, WiRē will prepare WiRē Products 1 through 5 (see Exhibit E) and share them with the Partner. WiRē will organize a meeting to share these results (in-person or virtual) with the Partner.
- D2. Process data and present preliminary results from rapid assessment. Upon completion of the household survey, WiRē will prepare WiRē Products 6 through 9 (see Exhibit E) and share them with the Partner. WiRē will organize a meeting to share these results (in-person or virtual) with the Partner.
- D3. Prepare outreach materials and final report. WiRē will provide a questionnaire for the Partner to complete to kick-off the production of outreach materials. This questionnaire helps the Partner identify the key findings that can translate into homeowner actions and actions the Partner can take to help homeowners. The outreach materials are coproduced in an iterative manner.

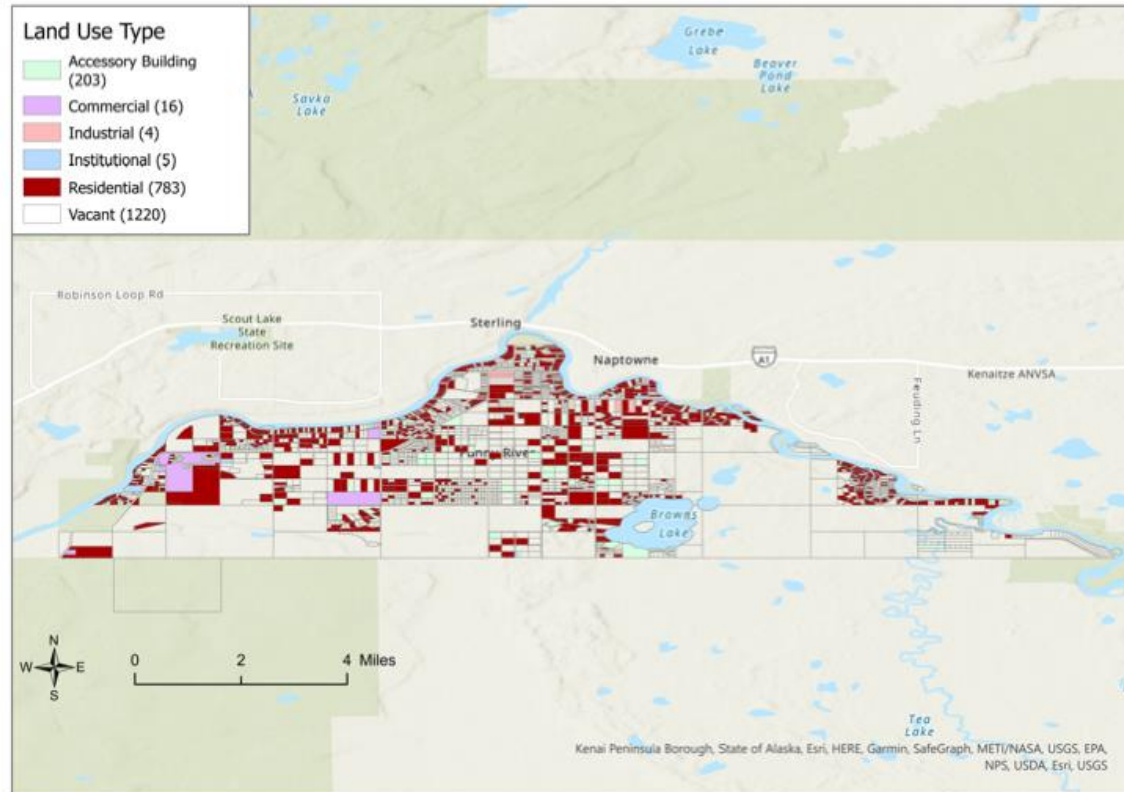
In the final report, WiRē will report the key findings based on the discussions from #D1 and #D2, as well as any additional analyses WiRē and the Partner conduct (see Exhibit E products 10 and 11).

Exhibit B. Study area selection

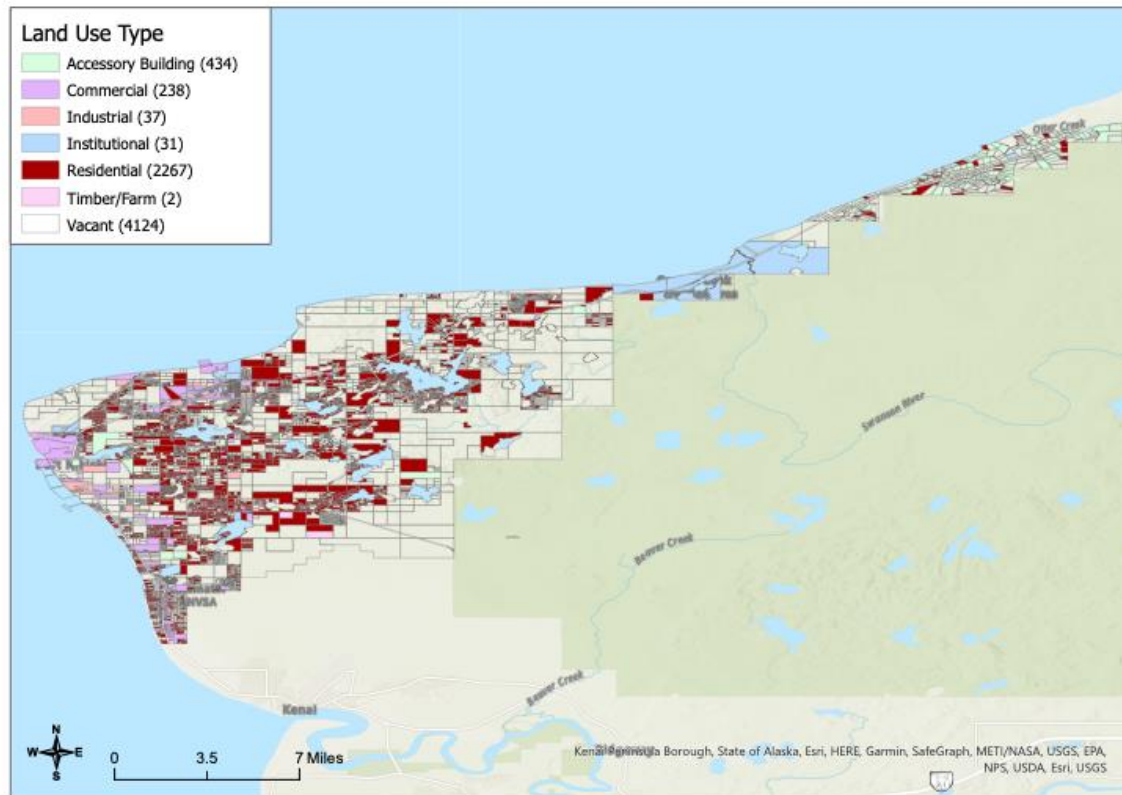


The Wildfire Research Center

WiRē



WiRē + Funny River Emergency Services
Map produced by The Wildfire Research Center (WiRē)



WiRē + Nikiski Fire Services
Map produced by The Wildfire Research Center (WiRē)

Exhibit C. Timeline for implementing the WiRē Approach with Partner													
	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12-14	Month 15-18
Project Setup													
A1. Attend planning calls													
A2. Review the standard WiRē rapid assessment and household survey													
A3. Obtain Kenai Peninsula Borough Assessor data													
A4. Identify the study area and sub-communities													
A5. Assign a unique id to each parcel in the Kenai Peninsula Borough assessor dataset (WiReID)													
A6. Create mailing list for residential parcel owners													
Rapid Assessments													
B1. Create the geodatabase and rapid assessment data collection app													
B2. Tailor and send initial letter to introduce the rapid assessment and household survey to residential homeowners in the study area.													
B3. Provide training on the RA data collection process and app													

Exhibit C. Timeline for implementing the WiRē Approach with Partner													
	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12-14	Month 15-18
B4. Conduct rapid assessments													
Household Survey													
C1. Clean the mailing list for household survey administration													
C2. Develop household survey administration procedures													
C3. Review and finalize household survey and correspondence materials													
C4. Administer the household survey													
Data and Reporting													
D1. Process data and present preliminary results from rapid assessment													
D2. Process data and present preliminary results from rapid assessment													
D3. Prepare outreach materials and final report													

Exhibit D. WiRē Process Flow

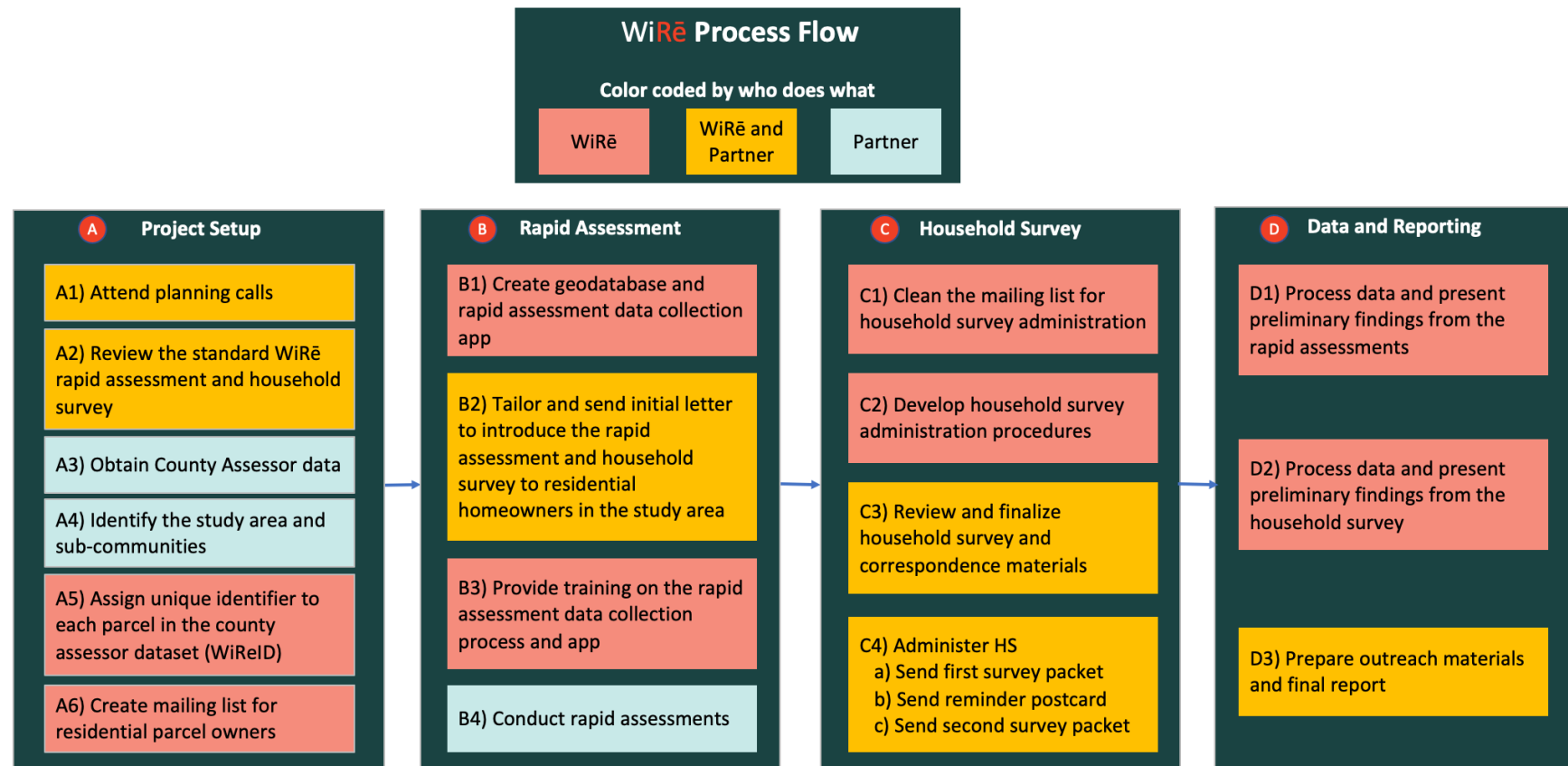
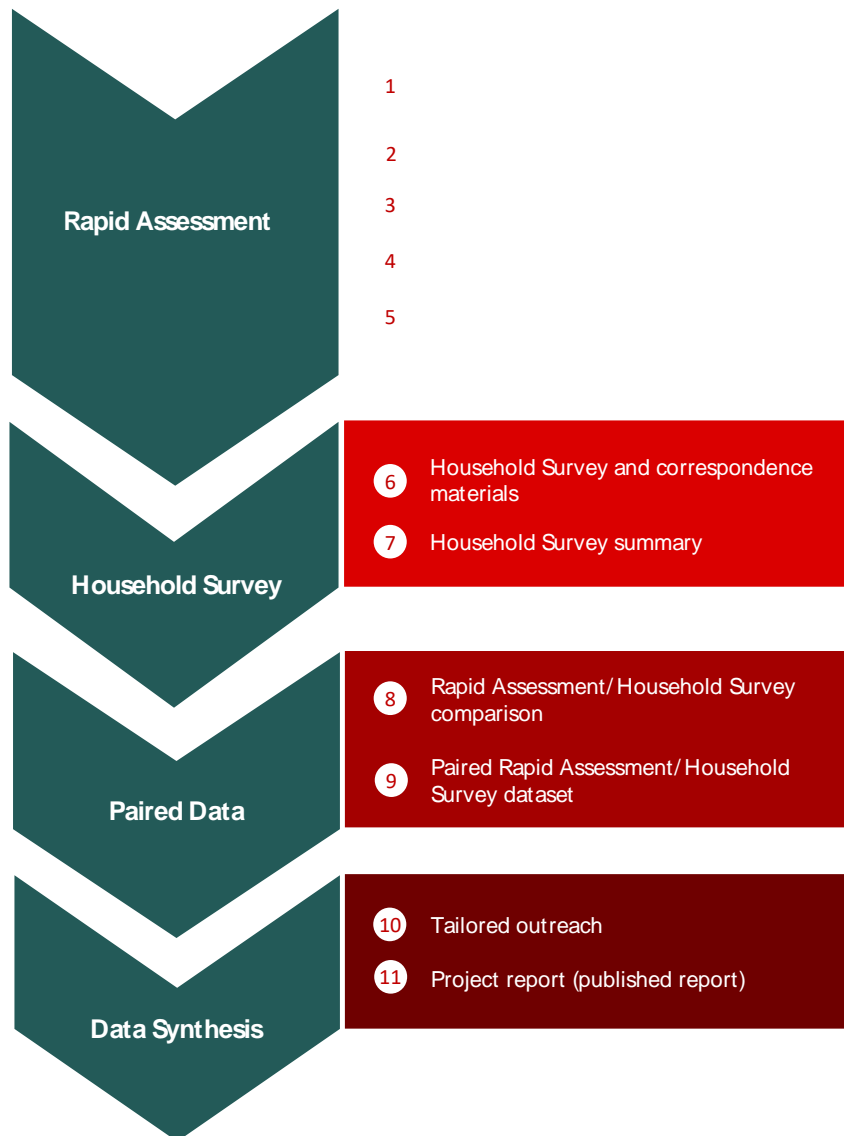


Exhibit E. WiRē Products

WiRē Products



4. **Roles and Responsibilities.**

a. WiRē Roles and Responsibilities. WiRē will assign a Project Manager, Data Manager, Wildfire Mitigation Specialist, and Social Science Researcher. In some instances, one individual may be responsible for multiple roles. Below we outline the respective roles of these individuals.

- The **Project Manager** is the point person for engaging with practitioner partners and is responsible for overseeing projects from start to finish, including project scoping and setup, implementation, and wrap up.
- The primary responsibility of the **Data Manager** is to analyze social and wildfire risk data collected by the Partner. This will involve front end data management checks to make sure (a) the rapid assessment and household survey categories and attributes align, (b) the household survey categories and attributes align with the master database of all community and partner data, and (c) each record in the Kenai Peninsula Borough assessor dataset receives a unique ID.
- The **Wildfire Mitigation Specialist** will provide practitioner-focused technical expertise and support to the Partner.
- The **Social Science Researchers** will provide research-focused technical expertise and support to the Partner.

b. Partner Roles/Responsibilities. The Partner will assign the following roles for this project.

- Primary point of contact (POC). Each of the three study areas will have a POC from the Kenai Peninsula Borough Office of Emergency Management and the local fire department. The Partner POCs are listed below.

Cooper Landing: Dan Osborn and Tim Weekley

Funny River: Roy Browning and Paul McBride

Nikiski: Bryan Ledahl and Brenda Ahlberg

The POCs will work very closely with the WiRē Project Manager throughout the project, including participating in regular calls. The POCs, with support from the WiRē Project Manager, are responsible for overseeing the implementation of the WiRē approach, which includes reviewing and approving all household survey and rapid assessment materials, coordinating with selected vendors for printing (if applicable), and tracking returned and completed household surveys.

- Additional contacts. Some partners have volunteers or other staff who need to engage in the WiRē process. We will establish these specific roles, as needed.

5. **Cost Sharing.** Exhibit F attached hereto and incorporated herein by reference provides a description of the approximate costs associated with this project and specify who is

responsible for paying for the costs. Under this agreement, there will be **no exchange of money between the Partner and WiRē Center.**

Exhibit F

	Cost incurred by WiRē	Cost incurred by Partner	Cost incurred by National Science Foundation grant	TOTAL PROJECT COST
WiRē time and travel	\$80,000	\$0	\$50,000	\$130,000
Household survey administration	\$0	\$0	\$28,000	\$28,000
Total	\$80,000	\$0	\$78,000	\$158,000

The administration of the household survey is funded by a National Science Foundation grant: *Socio-ecological considerations for sustainable Fuel treatments to Reduce wildfire Risk (SAFRR)* awarded by the University of Colorado to Dr. Hannah Brenkert-Smith. The selected print shop will invoice CU directly for the costs of administering the household survey. (see specifics of cost in Exhibit F).

Partner will provide personnel to perform a variety of tasks, including, but not limited to, participating in project meetings; conducting the rapid assessments; and reviewing, tailoring, and approving household survey correspondence materials. **The time the Partner provides to do this project is not estimated in Exhibit F.**

The Partner will track the time commitment they incur. The time commitment varies depending on the number of rapid assessments and household surveys, the household survey administration procedures, and the density of parcels. WiRē will provide a tracking document should the partner need a template.

6. **Data Use License.** In this section, the WiRē Center and Partner are sometimes herein referred to as a “Party” and collectively as the “Parties”.

a. **Ownership.** The WiRē data is owned by the Partner. The WiRē Center acknowledges to only use WiRē data pursuant to this Section 6, and that no right, title, or interest in or to any copyrights, trademarks, or other proprietary rights relating to the WiRē data is transferred or licensed from Partner to the WiRē Center.

b. **License.** The Partner shall provide to the WiRē Center a nonexclusive, transferable, perpetual, paid-up license (“License”) to use Partner’s WiRē Household Survey and Rapid Assessment data (hereinafter referred to as “WiRē data”) in accordance with the terms of this Agreement and for all other purposes which further the tax-exempt purposes of the WiRē Center, including but not limited to investigating the human dimensions of wildfire risk and presenting the results of these investigations in written publications and oral presentations.

7. **Confidentiality.** The WiRē Center acknowledges the information provided by the Partner may contain confidential information (i.e., personally identifiable information) that may be considered private or protected under the Colorado Consumer Protection Act or under Alaska law. The WiRē Center shall take appropriate measures to protect the confidentiality and security of such confidential information. The WiRē Center shall not disclose, use, or distribute any confidential information, except as expressly permitted in this Agreement or with prior written consent from the Partner. The WiRē Center may use the Partner's confidential information as needed to accomplish the Scope of Work (Exhibit A). For clarity, the WiRē Center may use aggregated, non-personally identifiable information that is not protected by Colorado Consumer Protection Act or Alaska law without seeking Partner's prior written consent.

8. **Term/Termination.** The WiRē Center and Partner may terminate this Agreement at any time by mutual written consent. This Agreement may also be terminated by either Party 1) on sixty (60) days written notice to the other Party; or 2) immediately upon a material breach of this Agreement. Upon notice of termination, the Partner may request for WiRē to return, delete, or destroy, any hard copy or digital copies of Partner confidential data from all storage media to which they might have been copied, including but not limited to hard drives, CDs, or other similar digital storage devices. Notwithstanding the foregoing, the License shall not terminate and shall be perpetual.

9. **Publications/Reports.** If the Partner desires, The WiRē Center will acknowledge the Partner as a source of information in any publications or reports that use the Partner's data in accordance with customary scientific practices. The WiRē Center shall submit to Partner for review a draft of each proposed presentation or publication performed under this Agreement. If the Partner will be a co-author or co-presenter, they shall have a review period of thirty (30) days. Partner may comment upon but may not make editorial changes to the results and conclusions set forth in the draft. The draft may be submitted for publication or presentation upon receipt of Partner's written comments or upon expiration of the review period with no comments received from Partner. Reasonable consideration shall be given to all requested edits received from Partner. The WiRē Center shall excise Partner confidential information from any publication or report identified by Partner in the draft.

10. **Hard copies of household surveys.** At the conclusion of this project, and once the datasets are finalized, paper surveys will be destroyed unless requested otherwise by the Partner. Paper surveys can be shipped to partner's address at partner's expense.

11. **Miscellaneous.**

a. **Notices.** Any notice required to be given or which shall be given under this Agreement shall be to the undersigned.

b. **Independent Entity.** For purposes of this Agreement and all research conducted hereunder, each Party shall be, and shall be deemed to be, an independent Party and not an agent or employee of the other Party. Each Party shall have exclusive control over its employees in the performance of the work. Neither

Party shall have authority to make any statements, representations, or commitments of any kind, or take any action, which shall be binding on the other Party, except as may be explicitly provided for herein or authorized in writing. Neither Party may use the name of the other in advertising or other forms of publicity without the written consent of the other.

c. Governing Law. The validity and interpretation of this Agreement are subject to interpretation under Alaska Law. Each Party agrees to be responsible for the activities, including the negligence, of their employees.

d. No Warranty. The WiRē Center and the Partner make no express or implied warranty as to the conditions of the research, merchantability or fitness for a particular purpose of the research, data, or resulting product incorporating data developed and exchanged under this Agreement.

e. Entire Agreement. This Agreement contains all of the terms of the Parties and supersedes all prior Agreements and understandings related thereto. This Agreement can be changed or amended only by a written instrument signed by the Parties. Due to the specialized nature of the work, this Agreement is non-assignable by both Parties.

f. Disputes. The signatories to this Agreement shall expend their best efforts to amicably resolve any dispute that may arise under this Agreement. Any dispute that the signatories are unable to resolve shall be submitted to the Director of the WiRē Center or his/her designee and the Director of the Partner or his/her designee for resolution.

g. Survivability. All provisions which by their terms survive termination of this Agreement shall survive the termination of this Agreement, including but not limited to Section 6-10, inclusive.

h. Counterparts/Electronic Execution. This Agreement may be executed in counterparts and digital copies, each of which shall be deemed an original and all of which shall constitute a single instrument.

[Signature page to follow]

IN WITNESS WHEREOF the undersigned have executed this Agreement to be Effective as of the Effective Date.

Sarah Colleen Donovan, President
The Wildfire Research Center
8117 Alfalfa Ct.
Niwot, CO 80503

_____ Date _____

Brenda Ahlberg, Emergency Manager
Kenai Peninsula Borough
Office of Emergency Management
253 Wilson Lane
Soldotna, AK 99669

_____ Date _____

Daniel Osborn, Fire Chief
Cooper Landing Emergency Services
38748 Snug Harbor Rd
P.O. Box 510
Cooper Landing, Alaska 99572

_____ Date _____

Roy Browning, Fire Chief
Central Emergency Services
231 S Binkley St
Soldotna, AK 99669

_____ Date _____

Trent Burnett, Chief
Nikiski Fire Department
44800 Kenai Spur Hwy
Nikiski, AK 99611

_____ Date _____