

Alaska Permafrost Interviews - Question Guide

Italicized text is intended to be read to the interview participants. Questions are bullet pointed, with specific probes or follow up questions further bulleted. Additional instructions are bracketed ([]).

Thank you for agreeing to participate in this interview. I'm going to ask you some questions about permafrost, but first I'd like to know a little more about you. Can you tell me your name and where we are right now?

- Do you mind telling me how old you are?
- What city or village were you born in?
- How long have you lived in [name of village the interview is taking place in]?
- Do you participate in subsistence activities?
 - if yes: Probe → hunting, fishing, berry picking, other?
 - i. if yes: Probe → How long have you been participating in these subsistence activities?
- Have you participated in scientific research in your community previously?

Now I would like to talk about permafrost.

- Can you tell me what permafrost is?
- Is there permafrost in this [name of village you are in] village?
- What about outside the village?
- Have you noticed any changes in permafrost either in the village or outside the village?

Infrastructure Questions

I'd like to learn a little bit more about the buildings in your village

- Have you experienced any impacts to your home that may be related to permafrost thaw?
 - examples: leaning, sinking, jacking
- What type of foundation does your home have? [show example photos, next page]
- When was your home built?
 - If the respondent reports impact → Probe: Do you remember the timing of this impact? (season, years ago, etc.)
 - Can you tell me about anything that you have done to address these impacts?
 - i. If the respondent reports making repairs → Probes:
 1. Were you able to receive any financial assistance to make these repairs?
 2. Can you tell me more about the financial assistance? example: where did it come from? did you have to apply for it? where can I learn more about this program?

A cross-sectional diagram of a foundation wall. The wall is labeled 'Poured Concrete Foundation Wall'. At the base, it sits on a 'Footers' which are '3/4" Clean Stone'. Above the footers is a 'Stone Base'. The wall is reinforced with '#4 Re-Bars' (shown as horizontal lines) and 'Anchor Bolts' (shown as vertical lines). The top of the wall is labeled 'Concrete Slab with Wire Mesh'. The surrounding area is labeled 'Ground'.

Anchor Bolts

5" - 6" thick Concrete Slab with Wire Mesh

#4 Re-Bar Continuous

Crushed Stone Base

Optional Rigid Foam Insulation to Create FPSF (Frost Protected Shallow Foundation)

- Are you aware of other houses experiencing any impacts that may be related to permafrost thaw?
[Provide examples if needed: leaning, sinking, jacking, detaching from foundation, etc.]
- Do other houses and buildings have the same type of foundation as your house?
- Are other houses and buildings around the same age as your house?
- Does the store, school, or any other community building appear to have any problems related to permafrost?
 - If yes →Probe: How has the community addressed these impacts?
- Is there a certain region of houses within your community where houses or other buildings are impacted?

[Ask participant to identify locations on the map]

- Is there a certain time of year or a specific year that these buildings were impacted?
- Have any houses or other buildings been relocated due to these impacts?
 - If yes→Probe: Can you show me the previous location and new location of these buildings?
[Use map to locate]
 - Probe: Why were the buildings moved to that location?
 - i. What landscape features or characteristics made that location seem safer?
 - ii. Was any geophysical work done to assess the conditions there?

The next questions are about the environmental conditions around your house.

- Does your home experience high snow drifts or ponding?
[Show pictures]
 - If the respondent indicates they experience ponding→Probe: What season does this typically occur? Does ponding happen every year or just some years? Is ponding becoming more or less frequent?
- Have you noticed high snow drifts or ponding at other homes or buildings in the village?
 - If yes→Probe: Can you show me where those homes/buildings are located? [use map]
 - Has there been a noticeable change in high snow drifts or ponding through time?

Ponding



**PONDING DUE TO THAW
SETTLEMENT**

Snow Drifting



Now I would like to talk about impacts to roads (this could be asphalt roads, gravel or dirt roads, or atv trails)

- Can you tell me about the roads in your community?
 - Probe: How many roads are there?
 - Probe: What material are the roads?
- Are there ATV trails in or around the village?
- Are they maintained in any way?
- Have you observed any problems with the roads that might be related to permafrost?
[Examples: sinkholes, cracks, uneven surfaces, ponding, or flooding (pictures below)]
 - If the respondent reports problems with the roads → Probe: Can you show me the location of roads that have experienced problems?
 - Tell me about the timing of ponding/flooding (seasonal, specific year, frequency)
 - Probe: How has the community addressed these problems?
 - If the respondent reports that repairs have been made → Probe:
 - i. Who was responsible for the repairs?
 - ii. Do you know who I could talk to, to learn more about this?

Differential Settlement



Shoulder Sloughing



Ponding



- Does your community have boardwalks?
- Have you observed any problems with boardwalks that might be related to permafrost?
 - If the respondent reports problems with boardwalks → Probe: Can you show me the location of the boardwalks that have experienced [described] problems?
 - Probe: How has the community addressed these problems?
 - If the respondent reports that repairs have been made → Probe:
 - i. Who was responsible for the repairs?
 - ii. Do you know who I could talk to, to learn more about this?

Now I'd like to ask you a few questions about other infrastructure in the community

- Are you aware of any problems with the sewage lagoon related flooding, or slumping land, fencing, etc.?
- Are you aware of any problems with the landfill related flooding, or slumping land, fencing, etc.?
- Do you know of any problems with your airport or landing strip that may be due to permafrost?
[refer back to road pictures]
- Does the community have any telephone or utility poles?
 - If yes → Probe: Are any of these leaning?
- How do you/the community/others address these impacts?

Now I'd like to discuss any changes that you may have observed on the land

Landscape Change Questions

- Have you noticed any changes in the landscape that might be due to permafrost thaw?
[Examples: slumping, sinkholes, or thermokarst – show photos]
- Can you estimate size? Timing?
- Can you share the general location?
[Use map]
- Have you noticed anything about the general elevation or height of the landscape?
[Examples: Does it seem like its sinking? Raising? Unchanged?]
- Can you share the general location?
[Use map]
- Have you noticed places that have gotten wetter or drier?
- Have you noticed any changes in any lakes near your community?
 - Probe: What changes have you noticed?
[Examples: Draining, Getting bigger]
 - Probe: Over what period of time have these changes taken place?
[Examples: 5, 10, 20 years or more]
 - Can you show me the general location of these lakes?
[Use map]
- Have you noticed any changes in vegetation on the landscape?
 - Probe: What changes have you noticed?
 - Over what period of time have these changes taken place?
[Examples: 5 years? 10 years? 20 years? More?]
 - Can you show me the general location where you have observed these changes?
[Use map]
- Have you noticed any differences in snow on the landscape?
 - Probe: What changes have you noticed?
 - Over what period of time have these changes taken place?
[Examples: 5 years? 10 years? 20 years? More?]
- Does your community experience flooding?
 - Probe: What time of year does flooding usually occur?
 - Have you observed a change in how often it floods?
[Example: Is it flooding more often? Less often?]
 - Over what period of time has this change in flooding occurred?
[Example: 5 years? 10 years? 20 years? More?]
 - Can you show me the general location where flooding occurs?
[Use map]
- Have you observed erosion?
 - Probe: Have you observed a change in the severity or frequency of erosion?
 - Over what period of time have these changes taken place? (5, 10, 20, + years)?
 - Can you show me the general location where erosion occurs?
[Use map]

That is all the questions that I have for you. Is there anything else that you would like to tell me about permafrost or any other concerns you have about your community?

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