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 where 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?

<u>Infrastructure Questions</u>

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?

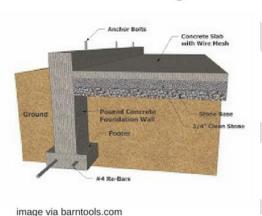
Pilings



Post and Pad



Shallow Footings



Slab on Grade

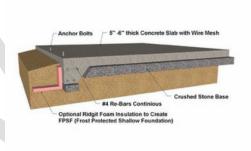


image via earthquakeproof.weebly.com

- 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 \rightarrow 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 \rightarrow 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 \rightarrow 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?

