

Colville Reservation Community Mobile Application

Sponsored by: Bigfoot Communications



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Problem Context

Background

- Colville Reservation spans 1.4 Million Acres in Eastern Washington
- 9,290 community members
- **Lack of centralized information and resource dissemination system**



Fig 1. Map of the Colville Reservation, [File:Colville Reservation map outline.png - Wikipedia](#)

Problem Context

- Two current communication methods
 - Formal: website and limited email
 - Informal: opinion pieces, Facebook
- Feeling of **disconnect** and **inconsistency** among community members
- Lack of **emergency notification system**
- Slow rollout of information



Fig 2. Tunk Creek Valley [Significant Washington Land Returned to the Colville Tribe | TNC \(nature.org\)](#)

Problem Context



Fig 3. KREM News Article, [Colville Tribe declares state of emergency due to wildfires | krem.com](https://www.krem.com/news/local/colville-tribe-declares-state-of-emergency-due-to-wildfires/)



Fig 4. KUOW News Article, [KUOW - Federal disaster declared for 16 Washington counties](https://www.kuow.org/news/federal-disaster-declared-for-16-washington-counties/)



Fig 5. CBS News Article, [2 people found dead, tribal officer shot on reservation in Washington - CBS News](https://www.cbsnews.com/news/2-people-found-dead-tribal-officer-shot-on-reservation-in-washington/)

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Problem Statement

Problem Statement

How might residents living in the **Colville Tribe Reservation** achieve a **sense of community and connection** with each other through a **mobile application** so that individuals feel **safe, a part of the community, and that their culture is valued.**

Solution

Colville Community Mobile Application

- Resources
- Contacts
- Alerts
- Accessible



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Research Insights

Research Insights



User Research

“(Colville Confederated Tribes) cluster of suicides has risen approximately 20 times the antional average and 5 times higher than the ratefor other Washington State American Indians”

- National Indian Health Board

“Data indicates that Native Americans have the highest rates of alcohol, marijuana, cocaine, inhalant, and hallucinogen use disorders compared to other ethnic groups.”

- American Addiction Centers



Literature Review

- Deep rooted issues in Native Americans and technology access
- Successful technologies adapts to the variable conditions of different areas

Research Insights

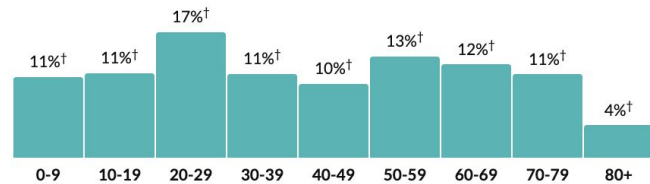
Age

41.1

Median age

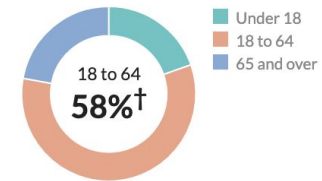
about 10 percent higher than the figure in United States: 38.5

Population by age range



Show data / Embed

Population by age category



Show data / Embed

Fig 6. Colville Reservation Census Report, [Colville Reservation - Profile data - Census Reporter](#)

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User Personas

User Personas



Fig 7. AI generated image

Elder

Name: *Sandra*

Age: *65*

Sex: *Female*

Location: *Nespelem, Okanogan County, WA*

Work: *Retired*

Pain Points:

- Visual impairments
- Not tech savvy



Fig 8. AI generated image

Community Connector

Name: *Tim*

Age: *36*

Sex: *Male*

Location: *Coulee Dam, WA*

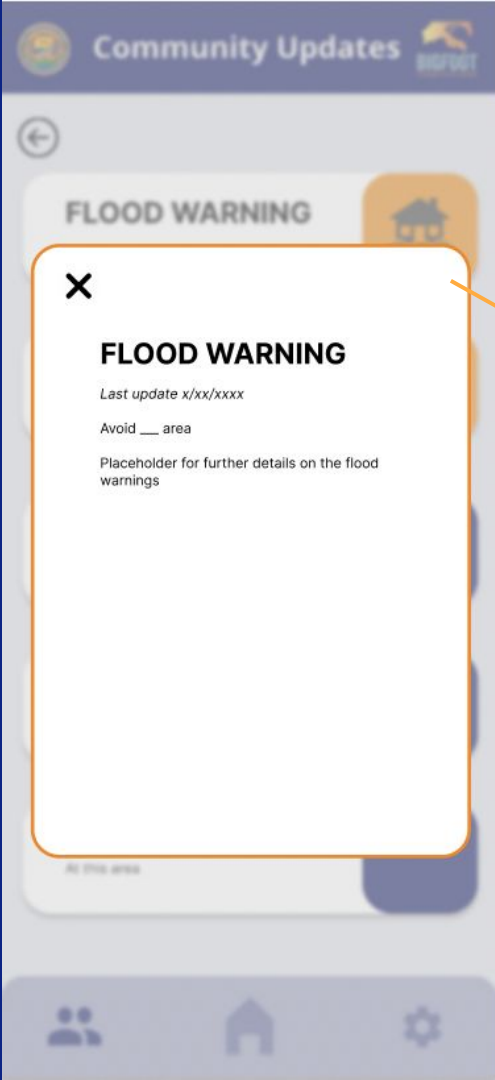
Work: *Writer*

Pain Points:

- Sharing information about local emergency resources quickly
- Reaching more community members

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Solution Approach/ Key features

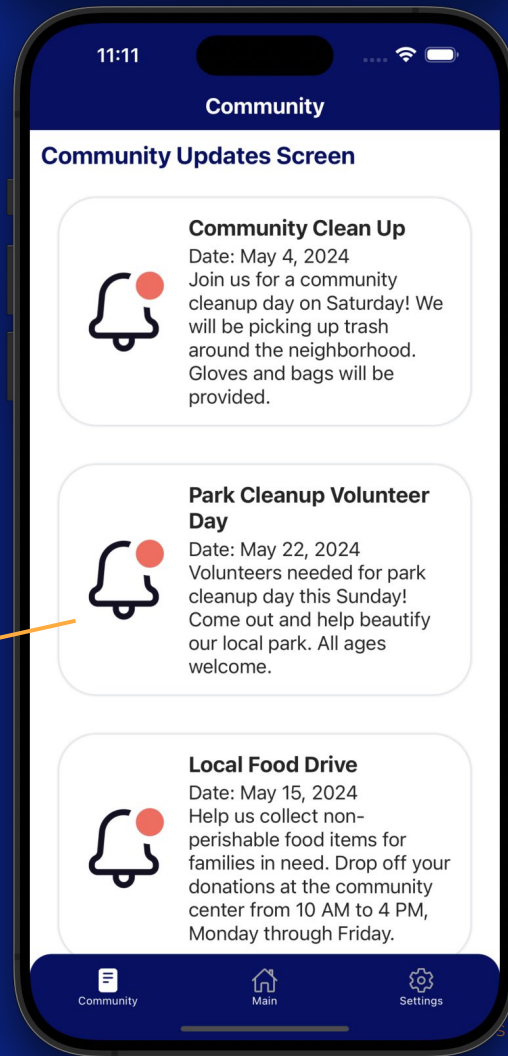


Key Feature #1

Community Updates

Emergency Alert Pop ups
Reports the details of natural disasters in close proximity

Community Updates Page
Where users can locate the history of community updates

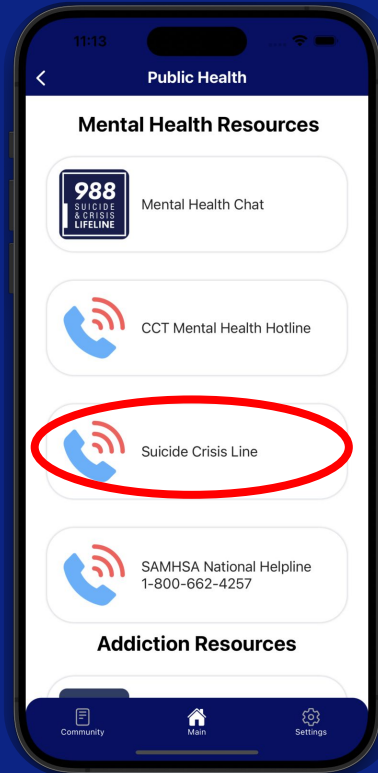


Key Feature #2

Resources

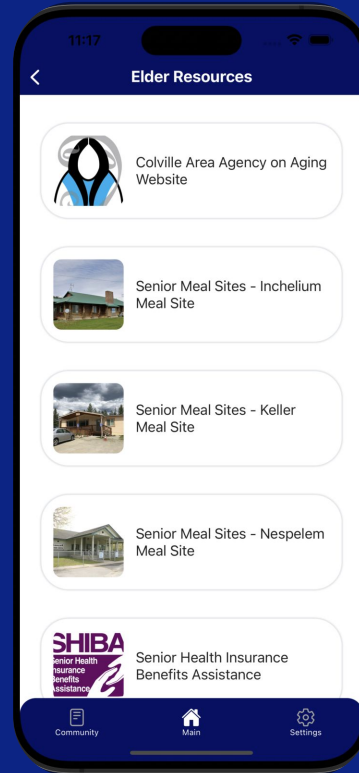
Public Health Support Page

A central destination consisting of mental health and addiction support links



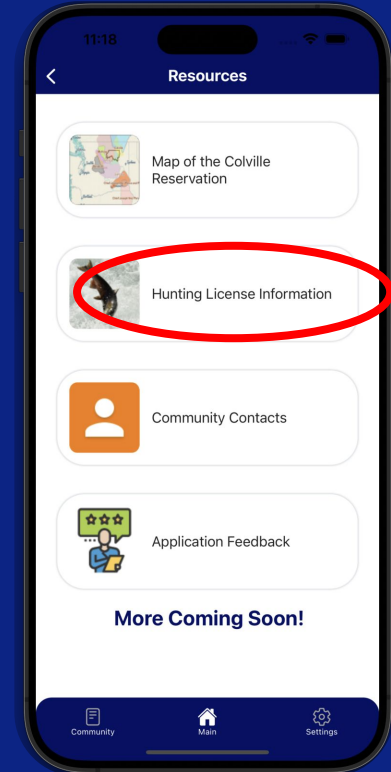
Elder Resources Page

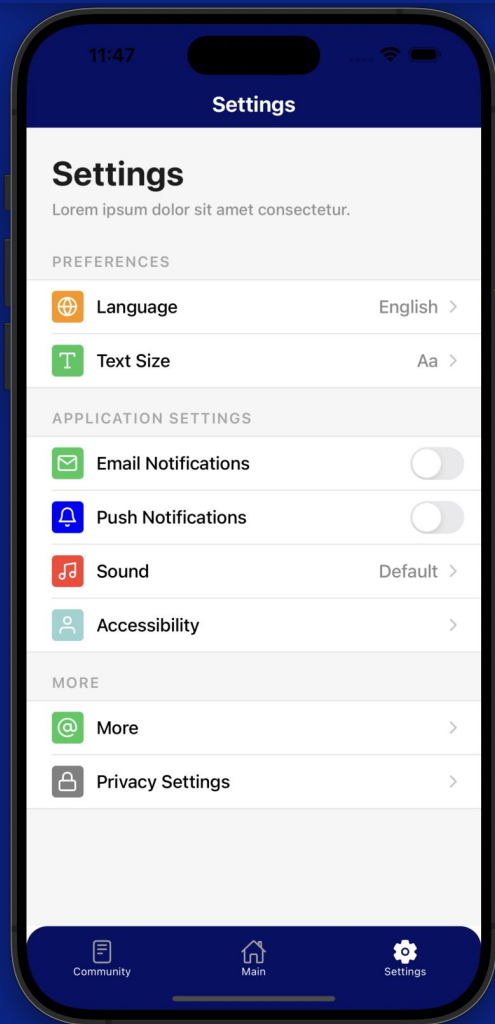
Resources to inform and support elders of the community



General Resources Page

General resources to guide visitors and further assist residents





Key Feature #3

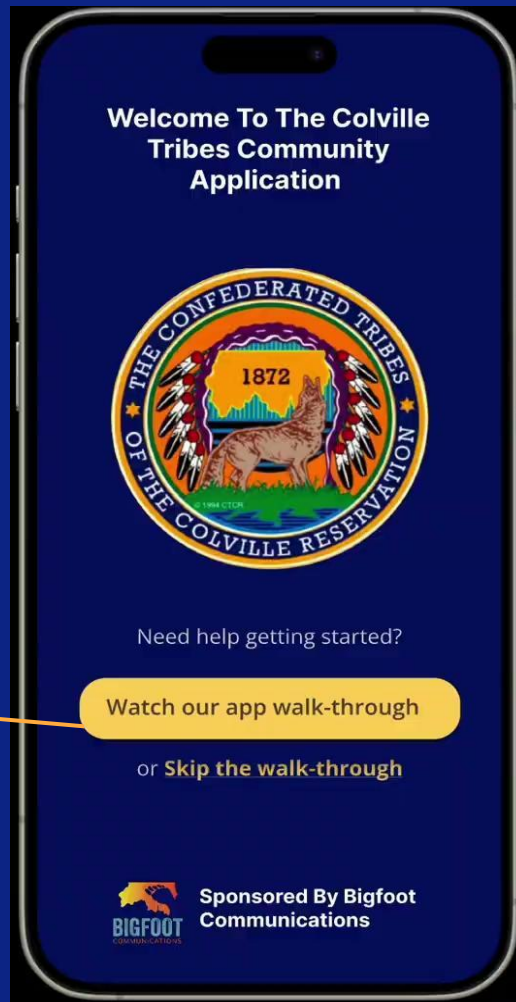
Accessibility Support

Accessibility Settings

Users can change text styles, display settings, auditory settings,

App Walk-through

An optional video that guides users in navigating different features and familiarizes them with the app's buttons



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User testing & Validation

User Testing & Validation

Concept and Assumptions Tested

How can this app be used by both tribal members and the general community in future iterations when there will be a login feature?

Insights

- Visitor stakeholders
 - Confusion in imagery used
 - Unfamiliar with some terminology (eg. elder)
 - Navigation is straightforward

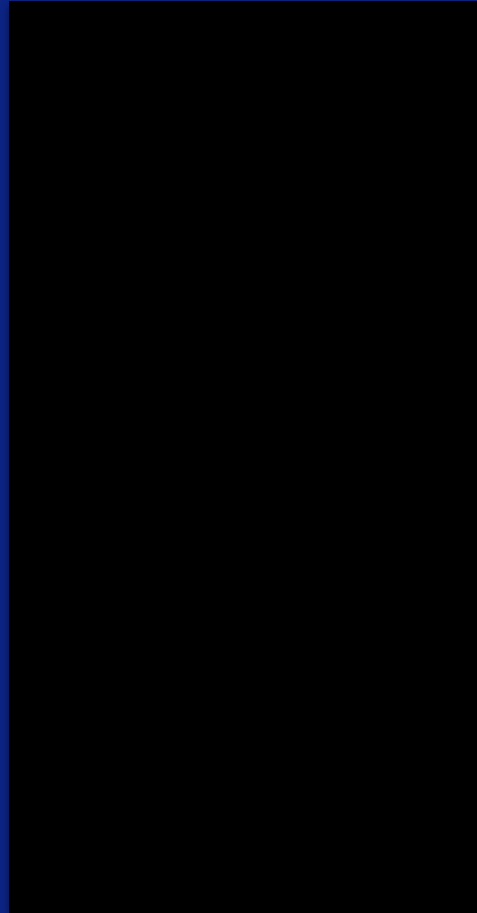
Design direction

We learned which content should be exclusive to tribal members in further iterations (eg. elder resources), but for now we have implemented descriptions within pages of confusing terminology

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Product Demo

Product Demo



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Ethical Considerations

Ethical Considerations

Cultural Considerations

- Incorporation of Tribal Emblems, images, and features
 - Avoid cultural appropriation
- Respect the cultural values of the Colville Tribe

Data Privacy and Security

- Prioritizing data protections
- Transparency for data collection, usage, and storage

Avoiding Exploitation

- Avoid exploiting the knowledge and resources of the Native population
- Ensure that the benefits of the application are equitable and accessible

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Next steps beyond Capstone

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- Hand off to our sponsor for future iterations
 - GitHub
- Push notifications
- Incorporations of Bigfoot Communications subscription services

Thank you!

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