Sustainable Design Case Study: Winthrop Public Library

Bottem R., Murray A., Salcedo E.
Sponsored by Friends of the Winthrop Library, Craig Seasholes
UEPP 471 Sustainability Planning Studio
August 10, 2022
# Table of Contents

★ Executive Summary 3
★ Introduction 5
★ Methodology 8
★ Educational Material 12
  ○ Problem Statement
  ○ Results
  ○ Recommendations
  ○ Monitoring and Evaluation
★ Completion of Sustainable Design 19
  ○ Problem Statement
  ○ Results
  ○ Recommendations
  ○ Monitoring and Evaluation
★ Budget 24
★ United Nations Sustainable Development Goals 27
★ Conclusion 30
★ Resources 32
★ Appendices 35
Executive Summary
Executive Summary

Problem Statement
As global temperatures continue to rise, areas like the Methow Valley are affected by natural hazards, specifically wildfires. As the frequencies of these natural hazard events increase, governments, organizations, and individuals are adapting to try to emit less carbon and create less of a harmful impact on the environment. The Winthrop Public Library was designed with the intent to mitigate the way infrastructure is developed through providing an energy efficient building that adapts to natural hazard events by providing clean air to the public and a weatherized space that prevents smoke from entering the building. Now that the building has been constructed, the next step is to communicate these design features to the public. The Winthrop Public Library is a structure that has the opportunity to supply both public awareness of natural hazard events and maximize the new library space for programs, events, and potential an emergency shelter. Informing the public of these features is a crucial step in capitalizing on this sustainable public building.

Description of Project
The Winthrop Public Library was completed through collaborative efforts between the Friends of The Winthrop Library (FOWL), Town of Winthrop, North Central Washington Libraries (NCWL), Clean Air Methow, other local organizations, and community members who invested in the construction of a clean-air, weatherized public building. In this report, our project group has formed recommendations through stakeholder interviews and polling data we have gathered. Our recommendations have also been informed through research on similar library developments. Our project team has included recommendations on educational material that could be used to inform the community on the sustainable design features in the library, transportation alternatives throughout Winthrop, weatherized buildings, HVAC systems, and solar panel productivity. We have also provided recommendations for the Town of Winthrop, Friends of The Winthrop Library, and Clean Air Methow to work collaboratively to construct a Smoke-Action Readiness Plan and to discuss the possibility of utilizing the Winthrop Library as an emergency shelter.

Summary of Recommendations
Our project group recommends: educational material be provided for the community, in the form of displays, maps, photographs, and other means so that community members may transfer their learning to home or work environments or increase the public’s sustainability literacy; to continue developing a strong partnership between the Town of Winthrop, FOWL, Clean Air Methow, NCWL, and the Okanogan County Emergency Planning Department to ensure effective communication between all parties so that remaining projects are completed and all stakeholders’ needs are well represented; to support Clean Air Methow in developing a Smoke-action Readiness Plan for the Winthrop Library to implement and eventually utilize the Winthrop Public Library as an emergency shelter; to engage and build relationships with the Confederated Tribes of the Colville Reservation and their library system to offer the Winthrop Public Library and community room as a space for educational programs, cultural events, meetings, or other uses that would support the Tribes’ interest; and to place a focus on continuing to source grant opportunities, locate funding for remaining projects, work cohesively with the Town of Winthrop, place a priority on community needs, and work with Clean Air Methow to provide a smoke shelter for Methow Valley community members.
Introduction
Our primary goal is to provide the library with adequate tools to convey to the community the sustainability incorporated into the design of the new building. A well-developed and comprehensive display of educational material that involves information on research into the project’s planning and development, and formatting the material in a way that can be presented to library visitors was the project group’s focused deliverable. Additionally, we intend to supply helpful material based on interviews and resources that can be used to support stakeholders listed above in the Executive Summary, to develop and implement a Smoke-Action Readiness plan and potentially use the library as an emergency shelter during wildfires.

Statement of Need
The Winthrop Public Library is a public facility intended to give everyone of all ages in the community a space to learn, form relationships, and build a network of connections. The library has sustainable features such as the heating, ventilation, and air conditioning (HVAC) system, weatherized building, TranGO bus stop, bicycle racks, and designs that will further the sustainability of the building like the EV charging station, firewise garden, and solar panels. This library project is intended to support stakeholders such as the Town of Winthrop, FOWL, and NCWL by providing educational material that conveys these designs to the library’s visitors. Because there are residents within the Methow Valley who are vulnerable to wildfires, specifically the elderly and those living in poverty, we believe the library could be utilized as an emergency shelter for those nearby who do not have a weatherized home that can ensure the tightness to maintain a clean air space. In addition to the educational material we provide, we wanted to voice our support of Clean Air Methow and provide information that we’ve gathered that may be useful in the process of developing a Smoke-Action Readiness Plan.

The United Nations has developed a list of seventeen Sustainable Development Goals (SDGs) that all involved countries have identified as crucial improvements that must be targeted globally to enhance the lives of all people, everywhere. These goals mean to improve public health, education, environmental preservation, reduce inequalities, and eliminate pollutants through sustainable and resilient means (THE 17 GOALS | Sustainable Development, n.d.). Many of these global goals can be applied to the Winthrop Public Library project. Completing sustainable infrastructure in the Methow Valley sets a standard and can influence other local developments to meet SDGs and assist the global effort in accomplishing these goals. Additionally, targeting sustainable infrastructure makes the Methow Valley more competitive when applying for grant opportunities.

Background Research
We conducted our initial research with the support of our sponsor, Craig Seasholes, and our professor, Joshua Porter. Additional materials we evaluated were provided through interviews of
individuals who relate to either sustainability in libraries or smoke-safe shelters. Groups who are working to apply aspects of sustainability and resiliency to the Methow Valley are groups like the Town of Winthrop, Friends Of the Winthrop Library, Resilient Methow, Clean Air Methow, the Confederated Tribes of the Colville Reservation, Methow Conservancy and more.

Our project sponsor, Craig, suggested that we evaluate other libraries that have developed sustainable infrastructure and the methods other libraries used to complete their projects. One library we evaluated was the Mechanicville Public Library, which installed a Level 2 dual-port EV charging station (Schuman, 2022). This library proved to us that other libraries have been locations to provide EV infrastructure. Additionally, the library planned to charge EV owners the electrical rate being paid to power the chargers (Schuman, 2022). Another library of interest to our group was the Timberland Olympia Library, located in Washington State. This library installed 33 solar panels on the roof of the public building and through collaborative efforts with involved stakeholders, groups were able to find a way to budget for the project and find the funding through evaluating the return on investment and state incentives (Rumsey, 2018).

Upon researching other libraries who have practiced sustainability through infrastructure designs, decarbonized facilities, and environmentally conscious planning, we were directed by our sponsor, Craig, to communicate with Rebekkah Smith Aldrich. We held an online meeting with Rebekkah, who is the executive director for the Mid-Hudson Library System in New York. Rebekkah shared that numerous libraries have been used as emergency shelters, have installed EV charging stations and solar panels, and applied the framework of the “triple bottom line”, which is a concept that encompasses three categories of sustainable values, identified as “environmentally sound, economically feasible, and socially equitable” (Smith Aldrich et al., 2022).

From first-hand experience, our library project group was fortunate enough to witness the return of 328 acres of land to the Confederated Tribes of the Colville Reservation (Palmer, 2022). The Methow Conservancy purchased the land and transferred the ownership to the Colville Tribes, exemplifying the community’s passion to be a more equitable and inclusive society. Events like these focused our attention towards equitable practices and recalling upon this experience assisted in thinking of methods to invite sovereign nations to be part of educational programs and events hosted at the Winthrop Public Library.

Numerous examples of sustainability have been supplied to our group and have shown us that providing educational material through displays and programming in the new Winthrop Public Library is a key method to educate the public about the many uses of the library and the significance these sustainability features can play in other buildings. The lack of knowledge about sustainable designs expresses the need for diverse types of learning opportunities where community members can be involved and better understand how to best utilize the resources provided by the Winthrop Public Library and perhaps apply similar designs if individuals have access to resources. Because of the need to think more sustainably in developing infrastructure, methods of transportation, energy sources, and other aspects of daily life, supplying visitors with educational information, being inviting and inclusive with local Indigenous groups, collaborating with all involved parties to complete remaining projects, and potentially utilizing the library as an emergency shelter will go a long way to support resilience in the Methow Valley.
Methodology
Research Needs
Because so many individuals and organizations were involved in the creation of the library, we knew that our research needed to be gathered through many stakeholder interviews to evaluate the needs of the Methow community. Based on research from stakeholder interviews and polling data, we identified:

- Ways of communicating the library’s sustainable designs through educational material
- Methods of transportation least utilized by library visitors
- Emergency shelter requirements and needs
- How to strengthen relationships with the Confederated Tribes of the Colville Reservation through programs and events

Interviewing Purpose
The stakeholders interviewed include local architects, the town planner, solar experts, Methow Conservancy, and Clean Air Methow. The write-up includes their understanding of the coming process, and will serve as a procedural/timeline. These interviews are helpful in gauging a better understanding for the community's resources, needs, and interests that can assist us in understanding how to best convey sustainability in the library.

Interviewing Procedure
After identifying a stakeholder, we reached out via email providing schedule availability and the library as a central meeting place. Interview requests included offering a virtual meeting to accommodate stakeholders far from Winthrop or with limited availability. Preparation included background research on the individual and their work, composing a list of questions in a Q&A table format. These tables served as our note taking location during the interviews.

Introductions included a thorough summary of our project and intentions followed typically by a broad “community engagement in the library” oriented question, to the effect of “How have you engaged with the new public library? How could you see the library’s engagement being improved?” The specific questions varied greatly as they depended on the expertise of each stakeholder and the flow of conversation. These often required note taking outside of the table which was organized after the interview. Typically all three group members were present for the interviews, with one note-taker, and two interviewers, one following the specific questions on a laptop and following the clock to respect the stakeholders time, and the other interviewer engaging in more conversational questioning, to encourage expansion on some points in conversation.

Interviewer 1: “Could you explain _________?”

Stakeholder: “________________.”

Interviewer 2: “That’s an interesting point you made, before we move on, could you explain that in a bit more detail?”

This Questioner, Note-Taker, and Conversationalist structure felt really natural in our group dynamic, with each of us swapping roles interchangeably. It was never explicitly stated who would fill each role. The interview was concluded with an open question giving space for any
Polling Purpose

For the first week of August we conducted a poll, open to participatory response in the foyer of the Winthrop Public Library; a simple polling option to sample information from library-goers. The purpose of the poll is to assess how visitors are traveling to the library and collect information on the number of car/bike/transit/pedestrian library users. This was helpful for understanding the most important information that needs to be conveyed in the library. If fewer people are utilizing the TranGo service, we can place a focus on providing a permanent TranGo map inside the library. If few visitors are walking to the library, we can provide a permanent map of the local trail systems that convey Winthrop’s connectivity.

This method was straightforward and efficient, as well as interactive as people will be able to tally their method of transportation to the library. This poll method also provides an easy way to ensure visitors are aware of the multiple methods of transportation that they could use to arrive at the library. Rather than stopping each individual that comes into the library, an interactive whiteboard allows people to provide answers in a fun and easy way. An in-person poll assesses the potential for the EV chargers, and sparks conversation around transit to and from the library. This polling method underwent a trial run in the library entrance beginning August 2nd, 2022 and ending August 8th, 2022. We describe the polling methods and results in the Educational Material: Sustainable Design section and the Completion of Sustainable Designs: Next Steps section. This polling method may be applied in the future to engage additional topics using the same procedure.

Polling Procedure

1. A $10.00 white board was purchased that is small enough to fit on a stand in the library, but big enough to be noticed by visitors.
2. We arrived at the Library on Tuesday, August 2nd, 2022 before the Library opened at 11:00 am to ensure that everyone coming into the library for the next week would be able to see the whiteboard on their way in.
3. Using a black expo marker, we set the poll question as “How did you arrive..."
at the Library today?”. We used 4 specific methods of transportation for people to be able to quickly tally as they walk in: Car, Bike, Walk, Bus, and other.

4. For library visitors to be able to respond to the question, we provided three different colored expo markers off to the side of the question.

5. We included one tally mark for the car we traveled to the library in. We placed this tally mark to show how we expect library visitors to continue marking the poll over the next five days.

6. We then placed the whiteboard on a stand provided by library staff.

7. To ensure the whiteboard would not fall off the stand, we used blue painter’s tape to secure the board on the stand.

8. With assistance from library staff, we located a well-seen and traveled location to place the whiteboard and set up the whiteboard by 11:15 am.

9. The whiteboard was set up for five consecutive days, available for library visitors to mark off during hours the library is open. Library hours are listed in the Research section above.

10. We collected data from the poll on Saturday, August 6, 2022, approximately ten minutes before the library closed.

Library Hours:
- Monday — Closed
- Tuesday — 11-7pm
- Wednesday — 11-7 pm
- Thursday — 10-6 pm
- Friday — 10-6 pm
- Saturday — 10-4 pm
- Sunday — Closed
Educational Material
With a building as complex as the Winthrop Public Library, both the Town of Winthrop and FOWL are seeking to share the details of its sustainability-focused design with the community to create more sustainably designed developments and maximize on the weatherized library shelter. Below are some of the highlights we’ve researched, presented in a format that could be produced as educational material. Deepening the community's understanding of the library ensures all who visit the library can learn about how to incorporate the library’s design features into their own lives, specifically on subjects like energy efficiency, alternative transportation options, water conservation (through integrating firewise vegetation), and more designs that the library displays.

Results
Below are the recorded primary observations we made while investigating the elements of the library's design. The information collected has been summarized for this report, with full results posted in the appendix, including Q&A tables and polling data.

Interviews
Ree West is the lead librarian at the Winthrop Public Library and works for North Central Washington Libraries (NCWL) and Wendy Sims is a board member on the Friends of the Winthrop Library (FOWL). Both expressed enthusiasm around the visitor engagement opportunities. Some foundational ideas were formed in this early meeting, this is where ideas around physical installations of education material originated (Sims W. et al., personal communication, 2022). Wendy and Ree provided further contacts for valuable stakeholder conversations to move forward with. Wendy recommended we reach out to Curtis Edwards for solar pV installation, and Margo Peterson-Aspholm to learn about the design process the responsible.

Rebekkah provided perspective on the libraries around the nation. The context Winthrop’s new library is within puts it in a profoundly unique position, as the only library Rebekkah knows of in the nation with goals around wildfire, smoke readiness, and emergency preparedness. The libraries Rebekkah has assisted are mostly on the East Coast, which are posed with different natural hazards such as hurricanes and floods, making the libraries on the East Coast alternative types of emergency shelters. The potential work to develop a smoke readiness plan for the Winthrop Library was an exciting prospect. Rebekkah was impressed by the extent to which FOWL was able to incorporate sustainable design in the library.

Margo Peterson-Aspholm is the lead architect who worked on the library. In conversation with Margo, we learned about the sustainability goals in the design phase. Design teams established a plan to build to LEED silver specifications, but due to a number of shortcomings in the process, the project failed to meet the required threshold (Peterson-Aspholm M., personal communication, 2022). This was disappointing for the FOWL board, but it’s recognized the goals were helpful in the design process. While the certification would be phenomenal, the building exists as it is, efficient and sustainable. Margo and the designers are incredibly proud of the results and for good reason. We were able to sort features in a hierarchy of sustainable contributions based on Margos...
feedback. This allowed the identification of the features most desirable for production of educational material (Peterson-Aspholm M., personal communication, 2022). The report in its current state is refined thanks to Margo’s understanding of the key pieces in the building.

In our meeting with Mayor Sally Ranzau, we learned a bit more about the current wildfire preparedness measures, mainly about the Red Barn, which is the current smoke shelter in Winthrop. The mayor emphasized that the Town has limited staff and resources, so they may not always have the bandwidth to make the library a top priority (Ranzau S., personal communication, 2022). She hopes that FOWL will continue their enthusiastic involvement in the project and that there can be a collaboration between the Town and FOWL on the completion of the remaining elements of the library.

Polling
Conducting a poll is a key tool in the assessment and justification for the implementation of the EV chargers, TranGO bus stops and route, Winthrop Trail network, and all other transportation methods in our recommendations. Seeking to learn more about how the community uses the library, we developed an in-person poll to learn directly from the patrons.

![Total Poll Responses](image)

Data
As an educational resource, the poll served as a point of engagement for all participants. Visitors had a moment to consider their personal impact. When planning a return visit to the library, if visitors felt conflicted when acknowledging their use of a car and had the option to ride a bike, they might take different action the second time. Additionally, head librarian Ree West enthusiastically participated in the entire week-long polling process, and plans to experiment with different questions to evoke community engagement.
Recommendations
We suggest that stakeholders such as FOWL and North Central Washington Libraries (NCWL) work collaboratively to provide educational material that showcases the sustainable designs in the Winthrop Library and additionally spread sustainable designs to other libraries and buildings throughout Washington State. In addition, libraries employed by NCWL could invest in electrifying NCWL fleets and utilize charging stations at NCWL locations. The following research can be produced in the library in an effort to communicate these sustainable designs to the public in an easily understood, informative way. The educational material suggested includes interactive displays, webpages, plaques, maps, social media posts, or other techniques.

Plaques
To showcase how the library is sustainable, we suggest stakeholders provide a plaque/display using the paragraph sections below. Plaques can communicate to library visitors the unseen library design features inside and around the building (Sims W. et al., personal communication, 2022). We believe the features that would be best understood through plaque designs are the Clean Air Building (HVAC and weatherization) and the electric vehicle charging station. The HVAC system is completely undetectable to library visitors, and as explained to us through stakeholder interviews, the public does not know that the building is weatherized. Informing library visitors on these features of the library could prompt individuals to weatherize other buildings in the community, their homes, or utilize the library space as a clean air shelter. This information could be effectively communicated to the public through a plaque/display and simultaneously be displayed online. To communicate to the public the importance of providing more EV charging stations, another educational plaque close to the EV charging station would be informative to the public. It is important to use a plaque/display that explains this need so that library visitors understand the purpose of the library installing an EV charging station. Below are examples of plaque descriptions that could be used to effectively express the sustainability related to the Clean Air Building and EV charging stations. Additionally, we located other plaque designs hanging in the library that have already been engraved and installed and included photographs of these plaques below. As these plaques are already in use, we believe similar design patterns would appear structured and themed.

**Plaque: Clean Air Building**
To have clean air indoors, a building must be tightly sealed and have a source of filtered ventilation. The new Winthrop Library has been designed such that the air inside remains as clean as possible, even during times of heavy wildfire smoke. This was achieved with the installation of a state-of-the-art heat pump HVAC system that cools, heats, and filters the air inside the building. In addition, the new windows, doors, and insulation provide a
tight building envelope, keeping the clean air inside, where visitors of the library can implement weatherization aspects into their own homes.

**Plaque: Electric Vehicle Charging Station**
A Level 2 charging station emits 240V of electricity to an electric vehicle (EV). A 240V electric vehicle charging station provides between 10 to 20 miles of range per hour of charge, meaning that the time it can take to fully charge an EV can be from 4 to 10 hours. Because an EV runs off an electric motor rather than an internal combustion engine (ICE), like gas-powered vehicles, an EV does not actively contribute to greenhouse gas emissions. Additionally, the electricity utilized by EVs at this station will be powered by Okanogan County Electric Co-op (OCEC), where around 80% of their electricity is generated from hydroelectric power. Because the connector provided at Level 2 charging stations can be used by all models of EVs, it is possible for any EV to charge at this station. The Methow Valley Climate Action Plan identified the transportation sector as the section emitting 92% of greenhouse gas emissions, making it the largest emitter in the Methow Valley (Methow Valley Climate Action Plan, 2021). Providing more EV infrastructure can support EV owners and work towards decreasing emissions.

**Maps**
To express in a visual manner, the features that are not as well known about the library, we believe one way to inform visitors about transportation features at the library would be through maps of the transit and trail network throughout the town of Winthrop. We have identified library wall locations where we believe maps would be easily seen. On these wall areas our group photoshopped a map from Okanogan transit and Methow Trails websites. Maps similar to the ones shown would be a fantastic way to increase TranGO ridership and Methow Valley trails utilization.
The polling data expressed, that there were not many visitors arriving at the library using the TranGO bus stop. To maximize the use of the new library bus stop, we recommend a map of all TranGO bus stops throughout Winthrop. In addition to this map, it would be effective to highlight the location of the library bus stop on the map so that library visitors know they can arrive at the library without needing to drive. Informing the public about other, accessible transportation options like the library bus stop can cause visitors to recognize the ease and convenience of using local transit to arrive at locations where other bus stops are positioned.

TranGO Map Source: https://okanogantransit.com/services/

From the polling data, fewer visitors were arriving at the library by walking or biking. Due to this, a visual representation of the Winthrop Trails would be effective in suggesting the public walk or bike to the library. If more people know the close proximity of trails near the library or near their residence, they will likely utilize the trails more. Methow Trails has maps of the trail system printed, so getting in touch with this organization and requesting a map would be a good way to get one for the library. Additionally, there are paper maps of the trail system that can be available in the library for visitors to take.

Methow Trails Map Source: https://www.methowtrails.org/summer-maps

Interactive Solar Generation Information
Included in the budget for the solar panels could be a public-facing interactive generation display that could show information about the electrical demand the library is pulling from the grid, and how much of the demand is being met by the solar generation at any given moment (Edwards C., personal communication, 2022). These interactive displays can be incredibly intuitive ways to demonstrate the value of solar when visitors can participate and interact with the system. Web-based generation information has been around for years. Making the solar generation information accessible through an online portal would also give a valuable educational resource to the community. Additionally, including grid/shore power demand of the library could provide a useful piece of community education, showing the cost of the public utility to the town of Winthrop.

Events and Programs
This project group recommends stakeholders involved in the Winthrop Library engage and build relations with the Confederated Tribes of the Colville Reservation and their existing library network and educational programs. It would be an excellent opportunity to invite Tribal members to utilize the library, truly capitalizing on the community room in the library. The Tribes could provide the Winthrop Library with educational programming, events, or other uses that would support the Tribes’ interests. We suggest that this invitation be extended by stakeholders like FOWL and NCW Libraries to the Tribes without requesting any cost to rent the community room. This would maximize the community room’s use by providing programs and events that would educate the community while building relationships and simultaneously making the Winthrop Library a welcoming, inclusive space. Sponsor, Craig Seasholes has voiced that the Methow Valley Interpretive Center has been invited to employ an information cove area near the entrance of the library during September-October and we suggest offering the Methow Valley Interpretive Center opportunities to utilize the community room for programming and events as well.
Another program we believe would be a productive use of the library’s space would be an after-school program for K-12 students. Providing a welcoming environment available to young people where they can learn and bond with their peers. Most parents work during the day while their kids are at school and likely have to pay for daycare services, nannying services, or have to restructure their work hours to reflect their children’s school schedule. We believe providing a program where students can come to the library would assist parents in finding ways to save money and complete their work day. The Southern Community rooms provide significant space for potential tutoring and homework help, checking out new books, and participating in community groups. Given close coordination between the school district and the library staff, volunteer programs could operate initially at a limited capacity, and grow from simple events. The timeline for these events relies on the capacity of the volunteers and staff, if events can be coordinated and supported, there are no barriers to after-school program growth.

Monitoring and Evaluation
Educational material for the website can be put up fairly quickly since it will not have the same printing costs and wait times as plaques or maps. Assessing the efficacy of educational material can be measured via page hits on the website with material posted. A timeline can be established for the creation and display of plaques and maps in the library. Since plaques for the firewise garden are already a project that the Methow Conservancy is working on, their process can be used as an example for the cost and timeline of plaque production. Maps of the TranGO route and the trail system should be easier to obtain than the plaques, so their timeline can be more accelerated - re-evaluating whether they have gotten put in and how challenging it would be to get them could happen in a month. FOWL board members will work with the Town of Winthrop and North Central Washington Libraries to ensure educational materials are provided to the public so they can better understand the sustainable functions in the library. The locations of these educational materials can be decided upon by stakeholders. The interactive solar generation display cannot be put in until the solar panels are installed at the library and will most likely be a part of the solar installation process. Therefore, the timeline for this is fairly long. Since the display is a part of the solar, it will take about a year to take the necessary steps to get it installed. Stakeholders should reevaluate the state of this project, whether it has been completed, and how much more work needs to be done on it a year from now. Events and programs have already been started, and the expansion of these programs should be started as soon as possible. Reaching out to the necessary parties to set up future events can help get things going quickly.

The success of these education materials is challenging to quantify since the end result is more understanding and spreading awareness of the library and sustainability in the community. By using the poll established in this project, the library could get a sense of the community’s level of knowledge about these topics and gauge how this knowledge changes as new educational materials are added. For example, the transportation poll conducted for this report could be conducted again after maps of the TranGO route and trail system are placed in the library, and the results from before and after the installation of these maps could be compared to see if there has been an increase in the number of people walking, biking, or taking the bus to the library.
Completion of Sustainable Design
Problem Statement
A variety of factors limited which sustainable design features could be finished during the initial construction of the library. As a result, there are a few aspects of the library that still need some work to be completed - mainly solar panels, EV chargers, emergency planning, and firewise landscaping. FOWL, the Town of Winthrop, and several other stakeholders will need to collaborate in order to get these elements in place. The following section outlines the current state of the sustainable design elements – complete and incomplete – included in original plans and provides recommendations for how to proceed with these elements, as well as which stakeholders should be involved in each element. These incomplete elements remain in consideration for further investment.

Results

Interviews
Curtis Edwards is the Solar project partner, and a former board member at Okanogan County Electric Cooperative. The interview with Curtis placed the solar project on a realistic timeline. Grants will expect some history of energy demand, given the building has only been open since June, the anticipated energy consumption is only an estimate (Edwards C., personal communication, 2022). Additionally, the grant applications are submitted yearly and are reviewed once a year. The path forward for solar on top of the library is simple. The roof has enough area for about 70 kilowatts of generation on a full sun day which could power well over a thousand standard LED light bulbs. The will be used to offset the expectedly large demand on the grid. This is facilitated by the preparations made by the architects when specifying the roof design. Estimated costs are around $250,000. The surest path forward will be applying to State grants. These programs require a one-third match. The installation will supply the library primarily, and excess would be distributed back to the grid for net metering. To understand if the electrical needs of the library are met from solar generation, an annual evaluation of the average kW used to power the library will be required to determine whether or not the energy produced by the solar panels will be enough to meet the library’s electricity needs (Edwards C., personal communication, 2022).

Maurice Goodall is the emergency planner for Okanogan County. After conversing with Maurice, we anticipate that inserting the Winthrop Public Library into developing or preexisting emergency plans is essential to ensure there is access to more emergency shelters in a time of greatest need. Upon learning about the library it will need to develop its own operation for emergency functioning. The shelters utilized by the county are independently operated but the respective building/site managers.

Liz Walker of Clean Air Methow recently organized a workgroup focused on planning for wildfire smoke in Okanogan County. The intent of the group is to bring together stakeholders from a variety of health, equity, and emergency management organizations in the county in regular meetings to create more communication between stakeholders during wildfire season and present more unified messaging to the public about how to respond to wildfires and smoke. The group is currently working on updating emergency plans at all levels to include plans for dealing with wildfire smoke. Attending one of the workgroup’s meetings gave us a good idea of what the current smoke readiness planning efforts are and how the library could potentially fit into these efforts.
**Recommendations (Paths Forward)**

As there are multiple stakeholders involved in the remaining projects for the Winthrop Library, it is our recommendation that all stakeholders involved create a strong method of collaboration and communication. We advise that the FOWL board designate one member of the board to correspond with the Town of Winthrop to create a strong form of communication between these two stakeholders. Moving forward with this technique would be a constructive method of communication and ensure a professional atmosphere when collaborating. The remaining project designs that need collaboration between stakeholders are the solar panels, the EV charging station, the TranGO bus stop, and the Firewise garden. To add, we understand that Clean Air Methow is working towards developing and implementing a Smoke-Action Readiness Plan. Regarding designating more weatherized, emergency shelters in Winthrop, the path forward would be for the Town of Winthrop to unite forces with Clean Air Methow to maximize the use of the Winthrop Library as a clean air shelter during wildfire smoke.

**Solar Panels**

We recommend that the Town of Winthrop receives assistance from members of FOWL who have expertise on grant writing. We see two pathways to completing the rooftop solar panels, one is that stakeholders access funding through fundraising events and donations and the second is that the Town applies for a grant in one year from now when the solar grant applications are available. Currently, there is still a significant amount of funding needed to complete and install the solar panels on the library roof so before the solar project can be purchased, funding needs to be accessed. Because the Town now owns the building, grants need to be submitted by the Town and to expedite the process, FOWL can lend a supportive hand in this grant writing process. Critically, the effective output of the solar installation will be proportional to the measured demand in the following year. Depending on how the building's efficient design performs this fall, winter, and spring, the solar array might have a different impact on the energy bills paid by the Town of Winthrop. There is potential the building could be entirely powered during the summer on full-sun days. The year-long energy demand profile will provide significance to future grant applications as the applicant working on behalf of the Town or FOWL can make predictions around potential outcomes more accurately.

**EV Charging Station**

We recommend that the Town of Winthrop continues working toward the installation of an EV charging station. Currently, there have been Town Council meetings regarding the Level 2 charging station being implemented at the library and staff members of the Town are arranging options where the Town Council can make a decision on what route they believe would be the best option for a charging station. The multiple options posed to the Town Council will determine the timeline for the charging station to be installed. As this is currently in the Town’s interest and on their agenda to implement a charging station, it would greatly
benefit all parties for a designated FOWL board member to work with the Town to create a timeline that reflects how Town Council meetings are scheduled and FOWL board meetings are scheduled. This method would function to work around when Winthrop Town Council decisions are made and serve to communicate updated information to the FOWL board during board meetings. For a helpful visual aid on what Level 2 charging stations look like, shown on this page are the different Level 2 charging stations currently equipped in Winthrop.

**Firewise Garden**
Moving forward on the firewise garden project, we suggest a meeting between stakeholders such as FOWL, Town of Winthrop, the Methow Conservancy, and any other parties involved in the outdoor library. This will prove helpful in moving toward the installation of the fire resistant native plants. As there does not seem to be a specific timeline that this development is set to be complete, it would be constructive to ensure the designated FOWL board member forms healthy communication with the town of Winthrop and Methow Conservancy. Because the Town of Winthrop will be maintaining the landscape and the Methow Conservancy will be providing QR codes to be attached to plaque descriptions around the firewise garden, forming an overall understanding of all stakeholders’ needs and the steps required to plant the fire resistant garden is key in completing the outdoor library project. As the firewise gardening does not have the funding needed to finish, we suggest that fundraising events could take place at the library or a well-traveled location in the Methow Valley to reach the targeted budget.

**Emergency Shelter**
Since the wildfire smoke workgroup is an existing entity focused on updating emergency preparedness plans in relation to becoming smoke ready communities, getting the library on their radar as a potential smoke shelter would be beneficial. If they’re open to it, someone from the library could join a workgroup meeting to talk about the advantages of using the library as a smoke shelter and gather information about what the workgroup would need from the library to include it in plans. Potentially having a representative from the library as a part of the wildfire smoke workgroup would be helpful for clear and direct communication between this potential shelter and the organizations creating smoke readiness plans for the community (Goodall M., personal communication, 2022). Since this group includes a variety of stakeholders aiming to create unified plans, they would most likely have valuable insights on how the library could be used in emergency planning, and they would be able to include the library in various levels of emergency plan if they were made aware that the library is now an available resource (Goodall M., personal communication, 2022).

**Monitoring and Evaluation**
Solar panel installation will take time because of the information needed for grant writing and the fundraising that will be required to start the project. Checking in on this project a year from now to see what progress has been made and reevaluating the path forward will allow for recalibration if necessary. Success for this aspect will be measured by its completion. An
additional measure of success will be a reduction in energy costs - energy bills from before and after solar panel installation can be compared to see how much impact the solar panels have.

Since EV chargers already have some momentum with the Winthrop Town Council, their implementation will most likely be faster than that of the solar panels. Their success will be measured by the completion of the project. Success could also be measured by collecting data on how many people are using the chargers and how much daily use the chargers get. Additionally, the whiteboard poll could be utilized; adding a category for EV on the transportation poll or creating a new poll related to using the chargers could gather information about how much the chargers are used and boost community awareness of the EV chargers at the library.

The firewise garden does not have a set timeline, but its success will also be measured by its completion. Since the garden is designed to have native drought tolerant plants, measuring the water usage for the garden could be another way to evaluate success. There is no prior non-firewise garden to compare it to, so it could be compared to a nearby landscaped area of a similar size containing non-firewise vegetation.

Setting up the library as an emergency shelter is dependent on the schedules of the various parties involved (Ranzau S., personal communication, 2022). Getting it fully prepared to be a smoke shelter before next fire season would be ideal. The completion of an emergency plan for the library and the addition of the library to larger scale emergency plans such as the Smoke Action Readiness Plan would be the best markers of success in this area. Regular check-ins on the library’s emergency plan can help keep it useful and up to date (Goodall M., personal communication, 2022). Additionally, if the library gets used as an emergency shelter, there will be an opportunity to reflect and reevaluate the plan based on what did and did not work in an emergency.
Budget
The budgeting for the educational material and next projects for the Winthrop Library is not yet completely determined/allocated as extensive research into funding, costs, and grant opportunities was limited by lack of time and expertise. Because there seem to be many unknowns about how funding will be gathered, we wanted to provide a general overview of what should be accounted for in the budget and an approximation of what the cost of each item might round out to.

- Elements to budget:
  - Educational Material
    - Displays (website/plaque/etc.): Can be anywhere from $0 to $100 depending on the method of publishing the academic information
    - Maps: Winthrop Trail network maps be provided by Methow Trails for no charge; TranGO may be able to provide the library with a complementary map in return for marketing the bus routes
  - Solar Panels
    - Will cost about $250,000 for materials and installation
    - After the Town of Winthrop has owned the library for one year, the opportunity to apply for a significant grant will be available
  - EV charging station
    - Dependent on the company chosen
      - Rivian: No fee required to install, maintain, service, or power the station according to the latest contract agreement
        - Charging station would be owned and operated by Rivian
      - ChargePoint: $2,400 for an annual subscription (for five years) with the company to maintain, update, and manage the station
        - Or $11,000 to purchase a charging station outright
      - ClipperCreek: Price can range from $565 to $2,250 depending on the charging station model
        - Company does not provide service or repair crews to fix damages or maintain the station
    - RFP: Request for proposal would give an individual or organization the opportunity to purchase and provide an EV charging station at the library
  - Firewise Garden
    - No estimate on pricing of fire resistant plants have been provided
    - Following installation, maintenance will be required to keep up the landscaping
      - Maintenance will be paid at minimum wage ($14.49) or higher (landscaping maintenance designated by the Town of Winthrop)
  - Emergency shelter
    - Emergency shelter will need food, water, a backup generator
    - Food costs will depend on the capacity the Winthrop Library can support during an emergency
      - Can estimate food per day sheltered to be approximately $35/person
    - A backup generator can cost between $5,500-$13,000 (Cost to Install a Generator, n.d.)
The bulk of the funding for these projects will likely come from state grants or incentives that significantly reduce costs of materials and installation. Another source of funding would be through fundraising and donations from members of the community. It is clear that there is no available funding through the Town of Winthrop as much of the current projects are focused around solving the housing crisis in the Methow Valley. All stakeholders are invested in seeing the remaining projects complete and will likely need to collaborate and look at what other publicly owned buildings have accomplished in the past. It is clear that grants available for solar projects will reopen in the coming year and the Town will be able to apply to them after owning the building for one year. The EV charging station costs will depend on the EV charging station that the Town Council votes on and can be installed and has the potential to be installed as soon as the end of the summer. The firewise garden needs to be funded through fundraising events, grants, donations, or rebates before being able to plant the fire resistant vegetation. Educational material can be provided at the discretion of stakeholders. To ensure that all safety measures are taken to provide an emergency shelter to the community, the Smoke-Action Readiness Plan needs to be completed and meetings and discussions with Liz Walker at Clean Air Methow are absolutely necessary to prepare the library as a ready to use emergency shelter.
United Nations
Sustainable Development Goals
Sustainable Development Goals

The Sustainable Development Goals (SDGs) are defined as “an urgent call for action by all countries - developed and developing - in a global partnership” (THE 17 GOALS | Sustainable Development, n.d.). These goals are identified as such: No Poverty; Zero Hunger; Good Health and Well-being; Quality Education; Gender Equality; Clean Water and Sanitation; Affordable and Clean Energy; Decent Work and Economic Growth; Industry, Innovation, and Infrastructure; Reduced Inequalities; Sustainable Cities and Communities; Responsible Consumption and Production; Climate Action; Life Below Water; Life on Land; Peace, Justice, and Strong Institutions; and Partnerships for the Goals (THE 17 GOALS | Sustainable Development, n.d.). This project group has been exposed to community members in the Methow Valley working to meet and accomplish all seventeen of these SDGs. Our group believes that the five SDGs the Winthrop Library has met or is working towards meeting are goal three, eleven, twelve, fifteen, and seventeen. Respectively, these goals are Good Health and Well-Being, Sustainable Cities and Communities, Responsible Consumption and Production, Life on Land, and Partnerships for the Goals. The goal, “Good Health and Well-Being” is defined as supporting health and well-being for all humans; “Sustainable Cities and Communities” means creating sustainable and resilient communities while ensuring safe and inclusive settlements, towns, and cities; the goal “Responsible Consumption and Production” means to develop “sustainable consumption and production patterns”; “Life on Land” is defined as preserving and restoring ecosystems and forests while ending land degradation, biodiversity loss, and desertification; and “Partnerships for the Goals” equates to creating alliances between governments, private entities, and community members to accomplish all seventeen goals.

Providing the community with a smoke-safe zone increases access to clean air in a place where seasonal wildfires pose major health risks to the local community, many of whom wouldn't otherwise have access to clean air.

The Town of Winthrop can utilize this building to provide a safe, smoke-proof shelter during emergency hazard events. Designs in the building reflect resilience and sustainability meeting the 11th UN goal. There are opportunities to make the library more inclusive and recommendations in this report will provide more methods of being equitable.
The aspiration of FOWL to design a cutting-edge & innovative library, supported by the community, has manifested as an sustainably constructed and responsible building that leaves little to be desired in the way of production-consumption management. The process was intensely regulated by the FOWL board and other stakeholders. Accessibility to clean energy and efficient community consumption are critical first steps in deep decarbonization. Deep decarbonization requires systemic changes that are felt by the entire local population. The roots of this process will be in the community centers, and shared spaces that serve as places of learning.

Seasonal wildfires are increasing in size and frequency. As the regional climate exhibits symptoms of a global trend, the local population finds themselves living with yearly adverse air quality and summer temperatures above historical averages. Providing energy-efficient infrastructure benefits the environment and can avoid producing emissions and the firewise garden educates the public about landscaping with native plants.

Collaborative efforts between FOWL, Town of Winthrop, and NCWL as well as numerous community members involved are at the heart of this project's rapid success. FOWL was established and funded by the community, and that collaborative partnership persisted and spread to reach those who could support the project. A shared vision of the ideal library for the Winthrop community and a resource for the Methow community
Conclusion
The Winthrop Public Library has a variety of sustainable design elements that the community does not yet have much awareness of and a few sustainability elements that still need to be completed. Some of the existing sustainable design features are the high quality and efficient HVAC system, weatherized design, wooden shades for passive cooling, and central walkable location. The library also provides resources to the community as a cooling center and clean air refuge, and has a stop on the bus route. The infrastructure is already in place to start the incomplete elements, which include solar panels, EV charging stations, a firewise garden, and a plan for using the library as an emergency shelter.

We interviewed several stakeholders and conducted a poll to gather information about the features of the library, how the knowledge of these features can be conveyed to the community, and the next steps needed for the incomplete elements.

For educational material, our main takeaways were that the building’s weatherization is its biggest asset to the community and that having multiple modes of communication is the best way to ensure that people are being reached. Our recommendations for educational material include informational pages on the library website, plaques in and around the library, maps of the bus route and trail system, and educational programming at the library. In completing these recommendations, the library would have multiple avenues of communication about the library’s functionality as a resource to the community, and community members would be more informed and feel more welcome in the new building.

Our recommendations for the incomplete elements provide the next steps for working towards the completion of these projects. Installation of solar panels is a fairly long process due to the need to apply to a grant for the necessary funds. Installation of EV chargers should go faster because the Town Council is already looking into getting EV chargers in Winthrop. The firewise garden does not have a set timeline but the plans for it have been made. The library’s status as an emergency shelter will depend on the creation of a library emergency plan and contact with the organizations making larger scale emergency plans. For all of these elements, the most important aspect is collaboration between stakeholders. There are a lot of organizations involved with the building, including FOWL, the Town of Winthrop, and North Central Washington Libraries. In order for things to get done at the library, there must be clear and open communication between all involved parties.

Sustainability encompasses not only environmental protection, but also equity and care for the community in the present and into the future. The new Winthrop library is an asset to the residents of Winthrop, and its usefulness and sustainability will only increase as its remaining elements are completed. Letting people know that this resource is here for them to use is just as important as creating the resource in the first place, and we hope that this report provides helpful information for both finishing the remaining elements of the library and educating the community. Thank you to all who engaged in conversation about making the library a more sustainable resource for the Town of Winthrop.
Resources & Appendices
Resources


Goodall M., personal communication, August 3, 2022.


Ranzau S., personal communication, August 9, 2022.


Smith Aldrich R., personal communication, July 29, 2022


Appendices

Abbreviations
EV: Electric Vehicle
FOWL: Friends of the Winthrop Library
HVAC: Heating Ventilation and Air Conditioning
NCWL: North Central Washington Libraries

Full Poll Data

<table>
<thead>
<tr>
<th>Date</th>
<th>Bike</th>
<th>Car</th>
<th>TranGO</th>
<th>Walk</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuesday</td>
<td>8/2</td>
<td>4</td>
<td>41</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Wednesday</td>
<td>8/3</td>
<td>7</td>
<td>22</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Thursday</td>
<td>8/4</td>
<td>5</td>
<td>30</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Friday</td>
<td>8/5</td>
<td>1</td>
<td>9</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Saturday</td>
<td>8/6</td>
<td>4</td>
<td>46</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>TOTAL</td>
<td>21</td>
<td>148</td>
<td>6</td>
<td>18</td>
<td>3</td>
</tr>
</tbody>
</table>

Full Stakeholder Interview Notes
Ree West and Wendy Sims

What does FOWL and the library hope to see in the library in the future?
For the library project to be fully complete. Need more funding to complete projects like solar and firewise landscaping. Need about $75,000 to fund. Could access grants could be through EBSCO. $250,000 state grant program requires a 30% match.

What features/designs of the library do you find the most important or the most sustainable?
FOWL wanted to ensure they met the LEED certification requirements (not LEED certified). The HVAC system provides clean air. In the event of a wildfire, the library is weatherized. Drainage swales will be embedded in the outdoor area. Swales will
<table>
<thead>
<tr>
<th>What type of educational material do you believe would be effective at conveying the sustainable designs in the library?</th>
<th>Plaques could explain the design features of the building and focus on how these features model sustainability goals. Visual displays would be effective. A display that conveys how the building can be used to provide a smoke shelter in the event of wildfires. Info on fire-resistant plants that will go outside the library. The display could market that: money can be saved on water with a fire-resistant garden/plant that you only need to water 2 times a month. Potentially a map display of all the trails in the area would incentivize walking/biking.</th>
</tr>
</thead>
<tbody>
<tr>
<td>What forms of community outreach do you believe to be the most effective or communicative?</td>
<td>Newsletters could be effective - most people in Winthrop read the newspaper daily. School district newsletter to reach students and parents. Make TranGo schedule known and available so the library bus stop is seen.</td>
</tr>
<tr>
<td>How do you see the library being more helpful/useful to the community?</td>
<td>Library could provide an afterschool program for kids. Program could focus on tutoring.</td>
</tr>
<tr>
<td>How do you see the EV charging station being directly useful to community members or staff of the library?</td>
<td>NCW Libraries could purchase electric vans and electrify fleets throughout the region. An EV could be plugged in at the library charging station.</td>
</tr>
<tr>
<td>Who do you suggest we reach out to, to find out more information about the library?</td>
<td>Contact for the solar project is Ellen Lamamen or Curtis Edwards. The architect, Margo Aspholm, would be helpful as Johnston &amp; Associate’s and Margo’s firm worked on the library building. Will need to contact someone about emergency plans and smoke shelters (Maurice Goodall).</td>
</tr>
</tbody>
</table>

**Curtis Edwards**

<p>| How does providing solar panels for the library model sustainability? | Renewable energy source that will go toward providing clean energy to Okanogan County Electric Co-op. An inspiring model of sustainability that other buildings in Winthrop |</p>
<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>What do you believe the Town of Winthrop should place the most focus on?</td>
<td>Completing the solar and the EV charging station. Finding and securing funds to complete projects.</td>
</tr>
<tr>
<td>What are the pieces of the library you think are the most important to convey to the public?</td>
<td>Solar, EVs, the firewise garden, the air filtration system, and others. Solar is an important piece that can educate many on the power of solar. That the library can be a place that provides clean air and power.</td>
</tr>
<tr>
<td>What educational material do you believe would be the most effective in conveying the importance of the solar on the library?</td>
<td>Most effective would be a display with real time generation to show how much energy has been produced in the last month. A system that showcases the production of the solar panels. Kids will have a better visual understanding. Relate kWh to LED lightbulbs. Explaining what is visible on the outside and what’s behind the scenes.</td>
</tr>
<tr>
<td>How do you feel about the proposed projects? If anything, what would you adjust?</td>
<td>Funding would be the last step that needs to get done. Assessing the energy output (only can be done after the panels are up and running) of the solar is key in conveying the solar energy production. Initially thought the solar would provide net-zero energy for the library.</td>
</tr>
<tr>
<td>Do you expect there are people in the Methow community who won’t utilize the library? How do you think our work can engage with them outside of the library?</td>
<td>Possibly, but many will likely stop by at least once and see what the library offers. Provide material that can be easily seen/heard by the community. Communicate with the community better about programs and events at the library.</td>
</tr>
<tr>
<td>What designs of the building do you think best model sustainability?</td>
<td>Hard to pick just one aspect- solar is special and will be a visible model. Display with real time generation - how much energy has been produced in the last month. A lot of unknown with price/electric output right now - will know more when the panels are installed.</td>
</tr>
<tr>
<td>What are the long-term goals for the solar building?</td>
<td>Might give people the idea that they could put solar on their roof.</td>
</tr>
</tbody>
</table>
What do you believe is the ideal path forward in the library?

Getting the project completed and using the area as a space that benefits the public in safety, education, assistance, and other ways.

How have you engaged with the sustainable design of the library on a simple scale, within the library?

Worked on some of the grant work, working with FOWL on the solar, assisting Ellen in finding ways to get the project completed.

How do you think the rest of the funding for the solar project will get secured?

Securing funds can come from grants or donations.

What is an issue occurring or a roadblock currently being dealt with?

Finding/securing the money to complete projects. Need about $100K for solar project.

Is there anything else that you want us to know about the library? About sustainable practices?

There will be days of the year where the library will be running off the sun. More affordable electric bills.

Who else do you think would be key in speaking with about modeling sustainability?

Should speak with Margo at the architect firm and Ellen who has worked on multiple solar projects.

Rebekkah Smith Aldrich

What are the most common sustainable design features that you see in libraries?

Sustainable design should focus more on an environmental mindset than completing a checklist. Carbon footprint reduction. Looking at the sources of carbon and reducing impact.
- Building envelope
- Glazing
- Sealing
- Visible choices the public implement
- Low flow toilets and water availability
- Air quality
- Air access (operable windows)

What educational material do you believe would be most effective in conveying the sustainable design of the library to the public?

Word of mouth, signage, networking with partners and the Town, social media

Are you aware of any libraries that cater to emergency preparedness in the community?

A solid established system for communication with the public and an ability to quickly recover and return to service are the most important considerations for a library trying to
<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is there anything else you think we should be aware of?</td>
<td>Social equity is an important component in environmental adaptation and climate change response. Match up the messaging with the aspirations of the community - what we do, and why we do it.</td>
</tr>
<tr>
<td>Maurice Goodall</td>
<td></td>
</tr>
<tr>
<td>How does Okanogan County certify buildings as smoke-ready or emergency prepared?</td>
<td>Comprehensive plan - How to plan for dynamic natural hazards (wildfires). Operations are day to day. All situations are assessed as they come. Places/Resources for response (services available) are considered as the emergency is evolving. Will the shelter be utilized?</td>
</tr>
</tbody>
</table>
| What is the best way to communicate smoke-proof or weatherized buildings that can be used to shelter members of the community during wildfires? | Don’t assume awareness, confirm with everyone they know. Knowledge to the public must be meaningful:  
  - Webpage (Not on FaceBook)  
  - Notification via text based on location  
  - Letting people know there is a shelter  
  - Reposting information can snowball  
  Road signs (Sandwich boards), create the trap line, along major arterials and high traffic areas. Picture map of the fire location and information for the public. Facebook groups aren't often reaching the people locally |
| What methods of community outreach have you found the most effective at reaching members within the county? | Community building. Scared populations have networks. Meeting and communicating. Creating familiarity with the surroundings and escape routes. Leadership and “hyper” about pushing out info. |
| How do you identify shelters where people can evacuate to? How could the Town of Winthrop go about creating smoke-safe shelters such as the Library? | Needs for building info - Maurice asks questions:  
  - How do we bring people in  
  - How do we protect our facility |
<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>How do we make people aware Expectations of a shelter?</td>
<td>- Providing for someone who has just run out of the house: Security, Access, Parking, Food, and Water</td>
</tr>
<tr>
<td></td>
<td>- A variety of need levels</td>
</tr>
<tr>
<td></td>
<td>- Communication around the establishment of the shelter</td>
</tr>
<tr>
<td></td>
<td>- Record keeping around participants</td>
</tr>
<tr>
<td></td>
<td>- Contact the red cross so they know they can use the library as a shelter</td>
</tr>
<tr>
<td></td>
<td>- Pet Friendly shelter?</td>
</tr>
<tr>
<td>What is the protocol for community evacuations at the county level for when wildfires occur within the county?</td>
<td>Collaboration/Collection of the 3 commissioners, and 13 mayors. All plans under one office.</td>
</tr>
<tr>
<td>How does the county go about finding/funding smoke-proof or weatherized shelters in the county?</td>
<td>Multihazard mitigation, probability analysis, mitigation of specific problems, emergency plans, etc.</td>
</tr>
<tr>
<td>What are the methods of assisting disabled, elderly, and others unable to transport themselves to smoke-safe shelters?</td>
<td>Knowing where the people in need are located (database), while allowing independence</td>
</tr>
<tr>
<td>As an emergency planner, what types of tasks do you perform for the county to ensure emergency preparedness?</td>
<td>Outsource the operations of the shelters. Refer the community to the outside-operated shelters. Shelters provided at Level 3: 1 there is a fire, 2 they get ready to leave, 3 evacuation of the people</td>
</tr>
<tr>
<td>What are the groups that should be involved in planning for emergencies?</td>
<td>Creating the network/hub for the community between operations and communication.</td>
</tr>
<tr>
<td></td>
<td>- NCWL</td>
</tr>
<tr>
<td></td>
<td>- Town of Winthrop</td>
</tr>
<tr>
<td></td>
<td>- Red Cross provinces leadership and operation</td>
</tr>
<tr>
<td></td>
<td>- OC Emergency Management</td>
</tr>
<tr>
<td></td>
<td>- Possibly school district</td>
</tr>
<tr>
<td></td>
<td>- First responders, Aero Methow, Fire Districts,</td>
</tr>
<tr>
<td></td>
<td>- Liz Walker, Chief Wodrow, Methow Emergency Plan</td>
</tr>
<tr>
<td>Is there anyone who you think would be helpful to talk to?</td>
<td>Contacting the Red Cross, all evacuation plans/needs are informed.</td>
</tr>
<tr>
<td><strong>Is there anything else you think we should know going forward? Anything you think would be key in including within our report?</strong></td>
<td><strong>Who is the Point Of Contact? Someone needs to be in charge of emergency shelter. More complex than welcoming people in.</strong></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
</tbody>
</table>

**Margo Peterson-Aspholm**

<table>
<thead>
<tr>
<th><strong>What role did you play during the construction of the Winthrop Library? What specific responsibilities were you tasked with?</strong></th>
<th><strong>Margo partnered with Johnston associates for the library design. Her company is in charge of construction administrative processes. She’s been working with FOWL, who was fundraising as they were building.</strong></th>
</tr>
</thead>
</table>

| **What would you say are some key design features in the library that contributed to sustainability?** | **- Ceiling fans prevent stratification of the air**  
- Mechanical system is very efficient (heat pump)  
- Library has HRV & VRF  
  - Heat Recovery Ventilation  
- HVAC is top of the line and no compromise on this system. It is very durable and the most energy efficient item on the list.  
- Insolation on walls and roof were improved  
- Aperable windows  
- Wooden shades outside the building help to filter sunlight coming in and prevent heat.  
- LED lights: daylight harvesting (automatic) and efficient  
- Low flow plumbing fixtures (use less water)  
- Slat detail in conference room helps to improve the acoustics (one of Margo's favorite features)  
- Firewise garden (drought resistant) modeling firewise landscaping |
|---|---|

<table>
<thead>
<tr>
<th><strong>How were decisions regarding designs/construction of the library made? Did design plans need approval?</strong></th>
<th><strong>The HVAC system was a priority. No cutting or budgeting on this circulation system. FOWL was fundraising as building was being constructed, they were real time value engineering. Originally planning to do thermal bridging and had to eliminate some plans ($8,000-9,000 increase in cost).</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Question</td>
<td>Answer</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>What steps would be needed to complete LEED certification?</td>
<td>Having a public interface for the solar if wanting the LEED certification.</td>
</tr>
<tr>
<td>What educational material do you think would be the most effective at conveying the sustainable</td>
<td>Libraries are a part of liveable, sustainable communities. Libraries are public, everyone is welcome. When people care and love a building it goes beyond just the building itself. A good example is the community center in Twisp.</td>
</tr>
<tr>
<td>designs of the Winthrop Library?</td>
<td></td>
</tr>
<tr>
<td>Do you think the community (who haven’t worked on the project) knows about the sustainable</td>
<td>Has only heard positive feedback from the community (but was also on the design team)</td>
</tr>
<tr>
<td>designs/clean air system at the library?</td>
<td></td>
</tr>
<tr>
<td>Is there anyone else who you would recommend we reach out and speak with?</td>
<td>Harris Clark (tasked w/ taking on LEED metric)</td>
</tr>
<tr>
<td>Is there anything else you think would be helpful for us to know when conducting our report?</td>
<td>Submittals</td>
</tr>
</tbody>
</table>

**Mayor Sally Ranzau**

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>In your experience, what method of community outreach works the best to reach the majority of the</td>
<td>The best method is through Methow Valley News and Town Council Meetings. Winthrop is a small town, there aren’t large news networks or significant social media presence. Many people have computers, so a website could be effective.</td>
</tr>
<tr>
<td>community?</td>
<td></td>
</tr>
<tr>
<td>What benefits do you see the new library providing to the community?</td>
<td>The old library was 1,000 square feet and only open part time. The new building is over 7,000 square feet and is close to the school and the senior center. It will be a valuable resource for the residents of Winthrop.</td>
</tr>
<tr>
<td>How much of the community do you think knows about the sustainable features in the library?</td>
<td>Community generally doesn’t know about the sustainable features. Some community members voiced that an expensive library is unnecessary, but overall, the Town is excited to have a new library space.</td>
</tr>
<tr>
<td>Specifically about the HVAC and weatherized designs of the building?</td>
<td></td>
</tr>
<tr>
<td>Do you expect collaboration between the Town of Winthrop and FOWL as the library’s</td>
<td>The Town has limited resources, so having FOWL continue to be involved in the library.</td>
</tr>
<tr>
<td>Question</td>
<td>Answer</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>primary focus shifts away from construction?</td>
<td>would be very helpful. FOWL’s main goal was to fundraise and get the library built, and their help would still be greatly appreciated for completion of the firewise garden and solar panels on the roof. Clear communication between the Town and FOWL key. NCWL operates the building, the community rooms are reservable by people in the town. Firewise landscaping has not been funded yet. Solar grant application: have to own the building for a year and have electric bills. Best option is through the Dept of Commerce, retrofit grant for putting solar on public buildings, need to own the building for a year, applications open every other year. Town wants solar panels, increasing sustainability is a long term goal.</td>
</tr>
<tr>
<td>Do you think the Town of Winthrop will utilize the Winthrop Public library as an emergency shelter in the future?</td>
<td>Yes, the town would use another smoke shelter. Since the library is ~7300 square feet, there is space available to shelter the community from smoke.</td>
</tr>
<tr>
<td>What emergency (weatherized) shelters in Winthrop have been utilized the most in past years during natural hazard events (specifically wildfires)?</td>
<td>The Red Barn was utilized last year and has capacity for around 300 people. The Town has worked with the Red Barn to provide a shelter and improve the ventilation system. Red Barn has a $30,000 HVAC system owned by the town and managed by a town employee (barn manager). Methow Valley plan is in progress (led by Liz Walker), needs of Methow are different from needs of Okanogan. Last year’s fires created daily meetings at the barn.</td>
</tr>
<tr>
<td>Is there anything that you think would be essential to note in our report? Anything you think we should know before completing our interview?</td>
<td>Town is willing to work with anyone interested in completing the remaining library projects. Town does not have the resources to dedicate someone to complete or finance projects. Construction of the building was done with sustainability in mind.</td>
</tr>
<tr>
<td>Is there anyone you think would be essential to speak with that might be helpful in answering questions about the new Winthrop Library project?</td>
<td>Barn manager - info on running a shelter; Liz Walker; Sun Mountain Lodge - biggest employer in the valley, very involved in fires and emergency planning; Fire district 6</td>
</tr>
</tbody>
</table>