

**Registration Summary**

**RKMF Expedition Grant (GROUP APPLICATION)**  
2014/2015



**Ritt Kellogg Memorial Fund  
Registration**

Registration No. X49N-F2HCD  
Submitted Jan 4, 2015 11:21pm

**Registration**

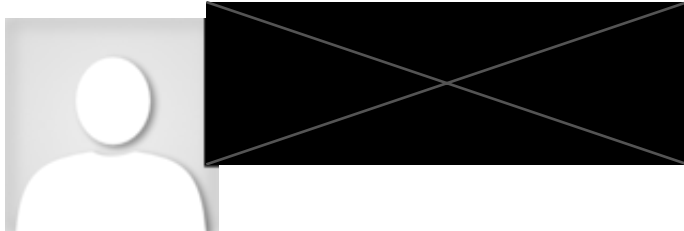
Oct 30, 2014-  
Aug 31

Ritt Kellogg Memorial Fund  
**RKMF Expedition Grant GROUP APPLICATION**

This is the group application for a RKMF Expedition Grant. If you have received approval, you may fill out this application as a group. In this application you will be asked to provide important details concerning your expedition.



**Participant**



**I. Expedition Summary**

**Expedition Name**

Pushing Our Boundaries

**Objectives**

We want to go on this expedition in order to increase our understanding of our connection to nature, our awareness of ourselves as individuals through that connection, and to gain a greater appreciation for canoeing as a timeless mode of transportation. By canoeing we can carry enough supplies for an extended stay in the backcountry without needing a resupply; therefore isolating

ourselves from the outside world and modern day conveniences. Come summer we will have completed our freshmen year of college, an introductory year into a completely new chapter of our lives. We feel that this isolated trip into the backcountry of northern Minnesota will allow us to take time to reflect on the influential and formative experiences that have occurred in the past year. Both of us agree that time in nature, away from the constant connectedness of everyday society, allows us to think introspectively and truly reflect. Not only would we like the incredibly experience of a seventeen day canoe trip in isolated backcountry, but we want the opportunity to separate ourselves from society and take time to consider where we are in our lives. We think reflection is an important way to look forward, and an extremely necessary component of living consciously. This canoe trip gives us the opportunity for an unforgettable adventure, as well as, ample time isolated in nature where we can truly think and reflect.

**Location**

The location of our proposed expedition is The Boundary Waters Canoe Area Wilderness, located in northern Minnesota. Our route through the Boundary Waters generally follows the Border Route, which will take us through a series of lakes and rivers along the US/Canadian border.

**Departure Date**

Jun 2, 2015 12:00am

**Return Date**

Jun 26, 2015 12:00am

**Days in the Field**

17

**Wilderness Character**

Once we are dropped off by the outfitter we will be completely immersed in the wilderness. Ritt believed in the power of the wilderness and the need to help preserve that inherent power. By choosing to travel by canoe we feel we are embodying Ritt's spirit of traveling in the outdoors. We are able to fully immerse ourselves in the backcountry for an extended period of time without needing a resupply, and therefore sever any connection to the outside world. Additionally, not only is traveling by canoe an ancient tradition, but it leaves an extremely minimal impact compared to other outdoor activities. Due to the fact that the BWCA sees such a large amount of traffic in the summer months it is of the utmost importance that we do the best we can not to create any additional impact. If we see any other expeditions on our trip we will make sure to camp far away from them in order to give both groups the sanctity of the wilderness.

We've chosen the Border Route in the northern Boundary Waters as our route of travel not only for its remoteness, but also for its well known historic background. In the 18th and 19th century, French traders known as "voyageurs" used the Border Route to transport and facilitate the trade of beaver pelts. While we paddle our own canoe, we will think of how people have been paddling the same exact waters for hundreds of years. The simple act of paddling along the border route connects us to the past in a particular way. It is interesting to think of how the great wilderness of the Boundary Waters may have affected the voyageurs before us. Although we will not be carrying beaver pelts or any items of trade we feel that the historical roots of the boundary waters adds another layer of interest and connection to our trip. By traveling via canoe through these historic waters we wish to fully immerse ourselves within nature, and experience a majestic wilderness that people have been paddling and sharing for hundreds of years.

## II. Participant Qualifications

### Participants' Graduation Date

Isaac Rubinstein:

Expected Graduation: Spring 2018.

Leo Turpan:

Expected Graduation: Spring 2018.

### Medical Certifications

- Isaac Rubinstein:

Expected Graduation: Spring 2018.

WFR Exp. Date: August 17, 2016

- Leo Turpan:

Expected Graduation: Spring 2018.

Enrolled WFR course: Wilderness Medical Institute at CC, Jan 5-14 2015.

### Does your group have adequate experience?

Yes

### Training Plan

To improve our technical skills involving canoeing, fishing and camping we will engage in skills acquisition and restoration throughout the months prior to the trip. We will bring a canoe to the kayak roll sessions that occur every monday night in the CC pool in order to practice canoe strokes and rescue techniques. Isaac will take a Swiftwater Rescue course in late April. In the spring we will spend a day fishing on a lake with the equipment we plan to use during the expedition. Finally, we will take a day trip during the end of the school year to solidify our confidence paddling a canoe. We will review WFR protocol and quiz each other to make sure we have retained the knowledge we learned. Additionally, we will thoroughly review our Medkit and make sure that we are adequately proficient using any equipment necessary.

## III. Expedition Logistics, Gear and Food

### Travel Plan

Directly following school we will both fly to Seattle and stay at Isaac's house, making any final preparations before we leave for the journey. We will be driving Isaac's car from Seattle to Ely, Minnesota where our canoe outfitter is located.

We will leave Seattle on June 2nd and start heading east towards Minnesota. For the majority of

our ride we will be traveling along I-90 and I-94. Our first day will take us along I-90 for 477 miles, an estimated 7 hour drive, to Missoula Montana, where we will camp at the Missoula KOA-tent campsite. The second day we will continue driving along I-90 for another 489 miles, also an estimated 7 hour drive, until we reach Miles City Montana where we will spend the night at Miles City KOA-tent. The next day we will transition onto I-94 and drive for 466 miles, once again another 7 hour drive, and we will end up in Fargo North Dakota where we will spend the night at Red River Valley campground. On the fourth and final day of driving we will take a collection of smaller highways heading north covering a total of 275 miles, an estimated 5 hour drive, finally arriving in Ely Minnesota. The outfitter we will be renting canoes from is located on Farm Lake, just seven miles outside Ely. After stopping to pick up any last minute items for the trip in Ely, if need be, we will continue onto our outfitters post where they have a cheap cabin for guests to stay the night.

The next day, June 6th we will set out on our journey, the outfitter supplying us with all our needed rental equipment (canoe, paddles, lifejackets, and portage packs). We will take a paid shuttle to our drop-off point with all our equipment, gear, and food ready to set out on an epic 17 day canoe trip through the isolated backcountry of the Boundary Waters along the Border Route.

Our exit point for the trip will be Farm Lake, where our outfitters are located, and therefore we won't require any return shuttle service. We will spend the night at the outfitter's cabin. In the morning we will start on our four day drive back to Seattle in which we will take the same route as we did to reach Minnesota.

### **Expedition Itinerary**

The attached map displays our 17 day route through the Boundary Waters. The route is drawn in blue, emergency exit routes are drawn in green, and the campsites are marked by blue triangles. As can be seen, there are different emergency exit routes to be taken, if needed, depending on where we are in our journey. Additionally, we have mapped out earlier exit points along our route in case we get delayed by weather and run out of enough food to complete the entire journey. However, every exit point is managed by the Forest Service and connects to a road; therefore, we can contact our canoe outfitter via satellite phone and set up a shuttle to have us be picked up and driven back to the outfitters headquarters anywhere along the route. Finally, we have marked some scenic and historical sites that we may or may not choose to stop at along the way depending on timing.

We will be dropped of by our outfitters on June 6th with all of our equipment, and we will put in and start our adventure at Little Indian Sioux River North, entry point #14. Ideally, 17 days and around 200 miles later we will arrive at our exit point Farm Lake, entry/exit point #31, where our outfitter is located.

There are an abundance of campsites along every lakeside and river of the Boundary Waters. Campsites in the BWCA cannot be reserved and are run on a first come first serve basis. Therefore, it is possible for certain spots to be occupied by other canoers prior to our own arrival, in which case we would simply have to go to the next closest campsite. However, we don't anticipate this to be much of a problem considering our more remote route, and the fact that there are almost always multiple campsites along each lake.

In the advent of a non life threatening emergency we have mapped out all emergency exits depending on where we are in our trip. Each evacuation point listed below is one of numerous "entry" points for the BWCA. Each entry point connects to a road and is managed by the Forest Service. We have mapped out the closest entry points by day in reference to our route. Therefore,

in any non life threatening emergency if we need to evacuate and abandon the trip we will immediately know which exit point we are closest to. We can then call our outfitter, inform them of our situation, and plan to have them meet us with a shuttle at the exit point for when we arrive. In the advent of a life threatening emergency we will call in a seaplane to have us evacuated.

#### Evacuation Points:

| Days  | Evac Point (BWCA entry point number)          |
|-------|---|
| 1-2   | Little Sioux River North (14)                 |
| 3-4   | Moose River (16)                              |
| 5-6   | Mudro Lake (23)                               |
| 7     | Fall Lake (24)                                |
| 8-10  | Moose Lake                                    |
| 11-12 | Snowbank Lake (27)                            |
| 13-15 | Kawishiwi Lake (37)                           |
| 16-17 | North Kawishiwi River (30) or Gabro Lake (33) |

#### Route:

Day 1: Dropped off by our outfitter at Little Indian Sioux River North. We paddle north up the river into Upper and Lower Pauness Lake. We then head east into Shell Lake, and continue to Heritage Lake where we will camp for the first night.

Day 2: We continue paddling north until we hit South Lake and then we head east until Bear Track Lake, our camp for the night.

Day 3: We start day three with a small portage from Bear Track Lake to Thumb Lake. We then continue northeast to Pocket Lake, where we will turn south until we reach our destination for the night, Oyster Lake.

Day 4: We start the day with our longest portage yet from Oyster Lake to Lake Agness. After reaching Lake Agness we continue north to our camp on an unnamed island. The reason we chose to travel as far north as we are on this day is to see some ancient pictographs on one of the islands we'll pass (marked on the map).

Day 5: We head back southeast through Iron Lake and onto our campsite in Sunday Bay. In order to reach Sunday Bay from Iron Lake we will have to portage the canoe as Iron Lake ends in a waterfall. There is another ancient pictograph site along the way, just before we should reach our camp on the shores of Sunday Bay.

Day 6: We continue east to our next campsite on Wednesday Bay.

Day 7: We head south from Wednesday Bay, making sure to avoid two separate sets of waterfalls before turning east into Basswood Lake where we will camp for the night.

Day 8: We will travel northeast and then south through Basswood Lake to Wind Lake.

Day 9: From the southeast end of Wind Lake we will portage to Moose Lake and then head northeast to Melon Lake.

Day 10: From Melon Lake we will continue paddling northeast, hugging the US/Canadian border, until we reach our campsite on Cherry Lake.

Day 11: We have a shorter paddling day today as we head south, but a long portage from Fish Lake to Jasper Lake. We'll continue southeast after Jasper Lake and make camp at the southern end of Ogishkemunice Lake.

Day 12: From Ogishkemunice Lake we move southwest onto Kekekobic Lake where we may opt for a short hike to Kekekabic lookout. Afterwards, we head south to our campsite on Fraser Lake.

Day 13: We will head east from Fraser Lake through a series of small lakes and portages until we reach our campsite on Pan Lake.

Day 14: From Pan Lake we will head south and then north up into Adams Lake and eventually Boulder Lake. On the map it appears to be an unnecessary detour, but Boulder Lake was highly recommended by our outfitters.

Day 15: After departing from the scenic Boulder Lake we continue south to Alice Lake. If we have time, on our way to Alice Lake we can make a short detour south to see more pictographs and/or an ancient native american burial site.

Day 16: From Alice Lake we make our way west to either Fire Lake or Lake 3 depending on how we are feeling and weather conditions. If we have the time and energy to reach Lake 3 it will make for a shorter final paddle on day 17.

Day 17: From either Fire Lake or Lake 3 we continue heading west until we reach our final destination of Farm Lake where our outfitters are located.

### Maps/Topos/Charts

[Boundary Waters Route.pdf](#) (1.2MB)

Uploaded Jan 4 by Leo Turpan

### Re-Ration Plans

No. By choosing to travel by canoe we are able to pack enough food for the entirety of the trip, and therefore become temporarily independent from the outside world, sustaining our existence solely in the backcountry.

### Food Storage

Black Bears populate the Boundary Waters. The danger of bears getting into our food is our primary concern. To remove food and any other items that may attract wildlife, each night we will construct bear hangs by bundling ALL food products into dry bags and hoisting them up high off the ground, at least 10 feet, preferably 15. During the day, for the most part we will be paddling on the water. During times on land our noticeable presence will deter the native animals from encroaching. We will also carry a bear flare for emergencies, such as a bear in our food or a bear close enough to us to endanger us. This flare can also be used in medical emergencies because it allows us to signal our location to someone in the surrounding area.

### Food List

As can be seen below, we will not be taking any form of meat on our expedition. As Leo is already a vegetarian and Isaac has gone through vegetarian spurts, we have decided that the only meat we

will eat during our expedition will come from the fish we catch, if we even catch any. However, we will be prepared to meet our daily caloric need without the consumption of any meat. We feel that meat is not a necessary component in one's diet as everyone seems to think.

Under Ritt's vision we want to do our best to preserve the wild, while also being able to experience its raw beauty. The meat industry is one of the main, if not the main, contributor to greenhouse gas pollution. Therefore, we feel that a key part of our expedition is the absence of meat in our planned diet. It will not only provide another thought-provoking layer to our expedition, but it aligns directly with Ritt's vision to experience the backcountry while doing your best to preserve it.

Caloric Need: 2 people at 2,500 calories a day for 25 days = 125,000 calories.

| Food Rations:          |              |               |                |                 |                |
|------------------------|--------------|---------------|----------------|-----------------|----------------|
| ITEM                   | USD Price/lb | Quantity (lb) | USD Price/item | calories per lb | total calories |
| Breakfast              |              |               |                |                 |                |
| Granola                | 4.99         | 8             | 39.92          | 1,856           | 14,848         |
| Bagels                 | 4.79         | 4             | 19.16          | 1,168           | 4,672          |
| Pancake mix            | 3.5          | 1             | 3.5            | 880             | 880            |
| Lunch                  |              |               |                |                 |                |
| Cashews                | 8            | 2             | 16             | 2,512           | 5,024          |
| Trail Mix              | 6.8          | 4             | 27.2           | 2,400           | 9,600          |
| Peanuts                | 4.99         | 2             | 9.98           | 2,720           | 5,440          |
| almonds                | 2.5          | 1             | 2.5            | 2,624           | 2,624          |
| Raisins                | 3.52         | 2             | 7.04           | 1,344           | 2,688          |
| Dried apricots         | 6.75         | 2             | 13.5           | 1,088           | 2,176          |
| Tortillas              | 3.49         | 2             | 6.98           | 1408            | 2,816          |
| Dinner                 |              |               |                |                 |                |
| Pinto bean flakes      | 6.74         | 3             | 20.22          | 560             | 1,680          |
| Dehydrated black beans | 6.5          | 3             | 19.5           | 1,888           | 5,664          |
| Penne Pasta            | 2.55         | 5             | 12.75          | 1,600           | 8,000          |
| Quinoa                 | 4.96         | 4             | 19.84          | 2,400           | 9,600          |
| Brown Rice             | 2.62         | 4             | 10.48          | 1,664           | 6,656          |
| Dried Hummus           | 5.24         | 2             | 10.48          | 800             | 1,600          |
| pesto                  | 5.94         | 0.5           | 2.97           | 2,416           | 1,208          |
| Tortillas              | 3.49         | 2             | 6.98           | 1,408           | 2,816          |
| Dried Veggies          | 7.82         | 3             | 23.46          | 1,680           | 5,040          |
| Cheese/Fats            |              |               |                |                 |                |
| Cheddar                | 7.98         | 2             | 15.96          | 1,828           | 3,656          |
| Mozzarella             | 7.98         | 2             | 15.96          | 1,376           | 2,752          |
| Cream cheese           | 3.89         | 2             | 7.78           | 1,583           | 3,166          |
| Butter                 | 3.64         | 2             | 7.28           | 3,248           | 6,496          |

|                             |                      |   |       |       |       |
|-----------------------------|----------------------|---|-------|-------|-------|
| Peanut butter               | 4.22                 | 3 | 12.66 | 2,672 | 8,016 |
| Granola bars                | 5.82                 | 2 | 11.64 | 2,026 | 4,053 |
| Hot cocoa                   | 3.92                 | 1 | 3.92  | 1,792 | 1,792 |
| Tea                         | 9.6                  | 1 | 9.6   | 2     | 2     |
| Powdered milk               | 3.68                 | 1 | 3.68  | 648   | 648   |
| Fresh Items                 |                      |   |       |       |       |
| Carrots                     | 2.39                 | 2 | 4.78  | 186   | 372   |
| Onions                      | 1.29                 | 3 | 3.87  | 191   | 573   |
| Garlic                      | 1.5                  | 2 | 3     | 676   | 1,352 |
| Peppers                     | 2.99                 | 3 | 8.97  | 91    | 273   |
| Apples                      | 1.59                 | 4 | 6.36  | 240   | 960   |
| Oranges                     | 1.49                 | 3 | 4.47  | 208   | 624   |
| Cucumber                    | 1.49                 | 3 | 4.47  | 68    | 204   |
| Zucchini                    | 1.89                 | 3 | 5.67  | 73    | 219   |
| Total (lb) and (\$)         | 93.5lbs<br>\$402.53  |   |       |       |       |
| Per Person (lb) and (\$)    | 46.75lbs<br>\$201.26 |   |       |       |       |
| lb per person per day       | 1.87lbs              |   |       |       |       |
| \$ per person per day       | \$8                  |   |       |       |       |
| Calories per person per day | 2,564                |   |       |       |       |

### Equipment List

#### First Aid Kit:

#### Wound Care/Burn/Blister-

3 Dressing, Gauze, Sterile, 4'' X 4'', Pkg./2

3 Dressing, Gauze, Sterile, 2'' X 2'', Pkg./2

2 Dressing, Non-Adherent, Sterile, 3'' X 4''

2 Bandage, Conforming Gauze, Non-Sterile, 3''

6 Bandage, Adhesive, Fabric, 1'' X 3''

4 Bandage, Adhesive, Fabric, Knuckle

1 Tape, 1'' X 10 Yards

2 Cotton Tip Applicator, Pkg./2

1 Syringe, Irrigation, 10 cc, 18 Gauge Tip

1 Catheter, 18 Gauge, Plastic Tip

1 Wound Closure Strips, 1/4'' X 4'', Pkg./10

1 Povidone Iodine, 3/4 oz.



2 Moleskin, Pre-cut and Shaped, 14 pcs.

6 Antiseptic Towelette

4 Triple Antibiotic Ointment, 1/32 oz

2 Skin-Tac Tropical Adhesive

#### Bleeding/CPR-

1 Gloves, Nitrile (Pair), One Hand Wipe

1 Trauma Pad, 5'' X 9''

1 CPR Breathing Barrier

#### Fracture/Sprain-

1 Bandage, Elastic with Velcro Closure, 3''

4 Bandage, Triangular

3 Safety Pins

#### Medications-

4 Ibuprofen (200 mg), Pkg./2

3 Acetaminophen (500mg), Pkg./2

4 Antihistamine (Diphenhydramine 25 mg)

4 Diamode (Loperamide HCL 2mg), Pkg./1

1 Aspirin (325 mg), Pkg./2

2 After Bite Sting and Itch Relief Wipe

12 doses of domeboro

#### Instruments-

1 EMT Shears, 4''

1 Splinter Picker/Tick Remover Forceps

1 Duct Tape, 2'' X 5 Yards

1 Pencil

1 Patient Assessment Form

3 Thermometer, Disposable, (96°F to 104.8°F)

1 marine flare

Medical history information for each member of the group

### **Equipment List:**

#### Group Gear

1 kevlar canoe

2 paddles

2 lifejackets

3 portage packs

1 sat phone

1 first aid kit

1 fire starting set up

2 lighters

Backup matches

Striker (<http://www.rei.com/product/762946/light-my-fire-swedish-firesteel-mini>)

Cotton balls dipped in vaseline in case of wet wood

1 pot

1 pan

1 backup alcohol stove (uses any pharmacy style alcohol to burn)

1 spatula

1 pot grip

Sierra Designs 2 person tent with rainfly

1 6x6 tarp

Compass

Maps and copies of maps

Large quantities of sunscreen

Biodegradable soap

Sponge

Hand sanitizer

MSR Autoflow Microfilter; Aquamira and a steripen as backup

## Personal Gear:

## Isaac-

Chacos  
Replaceable Tennis Shoes  
Rain Boots  
6 pairs of socks (wool or synthetic)  
1 knife/leatherman  
1 headlamp  
1 watch  
1 sun hat  
1 beanie  
1 balaclava/synthetic scarf  
1 bandana  
1 rain jacket  
1 fleece  
1 softshell top  
1 polyester top  
1 top long underwear  
1 bottom long underwear  
1 pair of work pants  
1 pair of shorts  
1 pair of fleece pants  
1 pair of rain pants  
toothbrush and toothpaste

## Leo-

Crocs  
Rugged tennis shoes  
6 pairs of socks  
Long underwear tops and bottoms  
Shorts  
Swimsuit

Hiking Pants  
Goretex rain Pants  
Goretex rain jacket  
2 shirts  
Lightweight synthetic fleece  
Heavyweight fleece jacket  
Sun hat  
Beanie  
Bandanna  
headlamp  
knife  
toiletries  
eating utensils and mug  
quickdry towel  
Fishing equipment

**Leave No Trace**

Yes. We both have a great deal of experience adhering to and helping teach the principles of LNT. We both helped lead backcountry trips in high school where we would be responsible for teaching younger students the principles of LNT. As well, we both strictly adhere to LNT protocol on personal trips, as we wish to leave the wilderness even cleaner than when we arrived.

**Plan for Minimizing Impacts**

Due to the fact that the water we will travel on will also supply many of our needs, we understand that we must do our best to respect and take care of it. We are also aware of the fact that the BWCA sees a great deal of traffic during the summer, and therefore it is extremely important that we make sure to do the best job we can in order to preserve the experience of the wilderness for all others. Although we will be sure to review the specific aspects of LNT regarding our trip prior to our departure, both of us have extensive experience in the practice of LNT principles.

*Plan ahead and prepare-*

Through the process of writing this grant we have researched the BWCA extensively in order to ensure that we leave the least possible trace while moving through the area's waterways. Through our planning we have created the specific steps necessary to make sure that we are self sufficient and safe.

*Travel and camp on durable surfaces-*

Due to the nature of our trip, we will inherently leave an extremely minimal impact on land

compared to backpacking or hiking trips. The only time we're realistically planning on being on land is for camping and portaging. As we move through the Boundary Waters it is required by the Forest Service that we only camp in designated campsites, which most likely eliminates the possibility of camping on non-durable surfaces. While portaging from one lake to another we will stay on the designated trails so as not to disrupt the natural foliage.

#### *Dispose of waste properly-*

We will make sure to pack out any food waste and trash. All human waste will be buried 6-8" deep, at least 200 feet from camp and any water sources.

#### *Leave what you find-*

As we will be moving through historic lands and passageways we will be sure to leave any historical finds untouched and on the ground. Leo's interest in nature photography will allow us to keep the memory of the trip while still preserving the wild.

#### *Minimize campfire impacts-*

Fires are allowed in the BWCA, however, as we are only allowed to camp in designated campsites and have fires in designated fire pits we will leave a minimal impact. We will make sure not to build any fires if there are no pre-made fire pits, unless of course in the advent of an emergency.

#### *Respect wildlife-*

We will make sure to cook and store any food away from camp so as not to attract black bears to our sleeping area. Additionally, each night we will construct a bear hang and hang all our food 15 feet in the air so as not to allow bears into our food supply. We do plan on fishing, but will obtain licenses beforehand and adhere to all rules and regulations. Overall, we will respect all wildlife and do our best to not infringe on their habitat.

#### *Be considerate of other visitors-*

The BWCA sees a huge amount of visitors during the summer months so we will surely cross paths with other canoers. When we do so, we hope to share some stories and laughs. Other than that we will respect all other traveler's desire to experience the wilderness.

### **Cultural Concerns**

Yes. The Boundary Waters are historically significant because they have a rich Native American History along with European and early American imprints due to the fur trade. There may be ruins or historical sites that we encounter, as well as other people that take reverence in those sites. We will respect the area as one would a church in the social world.

## **IV. Risk Management**

### **Hazard Mitigation Plan**

Duties would have to be redistributed during an emergency. Because there are only two people in

our group, the need to stay healthy to avoid burdening one's companion is paramount. Our dependence on one another could not be overstated, and we take this responsibility seriously. However, if something does happen, we will follow WFR protocols and assess the scene, use ABCDE checks head to toe, and check vitals. The advantage of traveling with only one person which you know well is that you can get a very detailed and thorough medical history before the trip. Our understanding of each other's histories will make us effective in understanding each other's possible ailments. In the event of an emergency, hopefully the compromised member will still be able to help in the reading of maps and decision making. The fully-abled person will take much of the physical duties while monitoring the health/vitals of the compromised partner.

In the result of hypothermia, which can occur because of extended time spent in the water, the stripping of wet and application of dry, warm clothes is necessary. Changing the environment in which the affected person is in is crucial. A hypo wrap could be in order, but we would most optimally prevent this by being in-tune with our partner's signs/symptoms. Inability to speak, ataxia and slowed motor skills are indicative of hypothermia, one of our biggest threats.

Being in and around water constantly makes the risk of infection very high. We are packing many bandages, an irrigation syringe and antibiotic ointment because of this. There is a common practice of ignoring small cuts or other issues in males of our age. In the wilderness these small things can balloon into the need to evacuate. This is why the primary management of small cuts is essential to a successful trip.

Being in the sun all day will make our need to hydrate and fuel ourselves even more important. We will carry our water filter and water bottles consciously close to increase hydration. Attention to symptoms of exhaustion can prevent malnutrition or dehydration from taking hold. Our caloric budget will be high for this trip, which explains the extensive food list. Taking multiple breaks on the water will allow us to hydrate and fuel up.

Lightning, especially on a water-based trip is especially dangerous. If the sky looks like its going to produce lightning, or if we hear thunder we will immediately find a place to dock, and surround ourselves with higher objects, like trees. If we cannot find a covered area, we will take the lightning position about 30 feet apart.

Wind on the larger lakes presents an immediate danger. It can make it difficult to steer, potentially steering us off course. Excessive wind will make the probability of a capsizing increase as well. Staying away from the center of large lakes will help protect us from wind, but we must decide whether to get on the water at all on windy days. If there are whitecaps across the whole lake, we will not go out. If we can stick close to the shore to avoid whitecaps we will do that. Our physically challenging schedule necessitates that we move every day, but if environmental conditions are such that it would be folly to get out on the water, we will use reason.

Trenchfoot is an extremely necessary concern when canoeing in the Boundary Waters. Daily canoeing and portaging will keep our feet wet for long periods of time. As well, this can keep them very cold if left unattended. To combat these possible conditions we will consistently be checking our feet for any signs of infection or trenchfoot. Additionally, we will commit our durable tennis shoes to daily wear and wet conditions, making sure to have a dry alternative every night at camp, and the same goes for our socks. In the evening we will be using an antifungal/drying powder specifically designed to battle trenchfoot as extra precaution.

## **Evacuation Plan**

In the Boundary Waters we will be miles away from any civilization. In the case of an extreme emergency we would use our SAT phone to call any of the numbers listed below depending on our location. They will be marked on the maps we buy. If there was an injury, illness or complication that was life threatening our immediate course of action would be to use our SAT phone to call any of the numbers below. Most likely they would send a float plane in to evacuate us. In all probability this will not occur. What we are more likely to deal with is the possibility of a non-life threatening injury that necessitates evacuation because it stops one of us from participating in canoeing. This would be something like an advanced infection, burn, broken bone, or serious case of trenchfoot. In this scenario we would locate ourselves on our map and deduce which evacuation point would be easiest/quickest/safest to get to. Before making our way out we would use our SAT phone to call our canoe outfitter and inform them of the situation, so they can have a shuttle ready to pick us up as soon as we arrive.

Each evacuation point listed below is one of numerous “entry” points for the BWCA. Each entry point connects to a road and is managed by the Forest Service. We have mapped out the closest entry points by day in reference to our route; therefore, in any emergency if we need to evacuate and abandon the trip we will immediately know which exit point we are closest to. We can then call our outfitter, inform them of our situation, and plan to have them meet us with a shuttle at the exit point for when we arrive.

#### Evacuation Points:

| Days  | Evac Point (BWCA entry point number)          |
|-------|---|
| 1-2   | Little Sioux River North (14)                 |
| 3-4   | Moose River (16)                              |
| 5-6   | Mudro Lake (23)                               |
| 7     | Fall Lake (24)                                |
| 8-10  | Moose Lake                                    |
| 11-12 | Snowbank Lake (27)                            |
| 13-15 | Kawishiwi Lake (37)                           |
| 16-17 | North Kawishiwi River (30) or Gabro Lake (33) |

#### Special Preparedness

Leo had ACL reconstruction surgery last year. If the position of his knee becomes too restricted in the canoe he may be unable to portage heavy loads. To prevent this from happening we will make sure that his position in the canoe does not impair his mobility. As well, come the time of the trip it will be more than a year post surgery and full recovery only takes nine months so there really shouldn't be any issue.

#### Emergency Resources

Ely-Bloomenson Community Hospital  
 328 West Conan Street  
 Ely, Minnesota 55731

218-365-3271

Boundary Waters Outfitters (our canoe outfitters)

629 Kawishiwi Trail

Ely, Minnesota 55731

(218) 365-3466

Forest Supervisor's Office

8901 Grand Avenue Place

Duluth, MN 55808

(218) 626-4300

[www.fs.usda.gov/superior](http://www.fs.usda.gov/superior)

Gunflint Ranger Station

2020 W. Highway 61

Grand Marais, MN 55604

(218) 387-1750

Kawishiwi Ranger Station

1393 Hwy 169

Ely, MN 55731

(218) 365-7600

(218) 365-7561 (5/1–9/30)

La Croix Ranger Station

320 N. Hwy 53

Cook, MN 55723

(218) 666-0020

Laurentian Ranger Station

318 Forestry Road

Aurora, MN 55705



(218) 229-8800

Tofte Ranger Station

Box 2159

Tofte, MN 55615

(218) 663-8060

### **Emergency Communication**

We will be carrying an Iridium 9575 satellite phone. The main reason we have chosen to rent this specific type of SAT phone is because it is waterproof and comes recommended as the most rugged.

“The Iridium 9575 Extreme is the newest Iridium satellite phone. It features a waterproof design, and is the only iridium phone that offers a built-in GPS, position reporting and a one button SOS feature. The Iridium 9575 is rubberized around the edges, making it the most rugged of the Iridium models”

([http://www.globalcomsatphone.com/satellite/phone\\_rentals\\_iridium.html](http://www.globalcomsatphone.com/satellite/phone_rentals_iridium.html))

## **V. Budget**

### **BUDGET**

Transportation:

Drop-off shuttle- \$65

Gas- \$425.24 at \$2.50 per gallon at 20 mpg for 3,402 total miles of driving

Food and Fuel:

Food- \$402.53

Maps and Books:

Fisher E and F series- \$6.90 each, total \$13.80

National Geographic Boundary Waters Map Pack- \$16.55

Communication Device Rental:

Iridium 9575 Extreme- \$233

Permits/Fees:

Boundary Waters Entry Permit- \$20

Camping Fee- \$16 each, \$32 total

Fishing License- \$50

Two nights at outfitters bunk- \$15 per night per person, total \$60

Road trip campsites- \$74 each way, \$148 total

Gear Rentals:

Kevlar Canoe- \$39 per day, total \$663

3 Portage Packs- each \$4.50 per day, total \$230

### **Transportation**

\$490.24

**Food and Fuel**

\$402.53

**Maps and Books**

\$30.35

**Communication Device Rental**

\$233

**Permits/Fees**

\$310

**Gear Rentals**

\$893

**Total Funding Request**

\$2359.12

**Cost Minimization Measures**

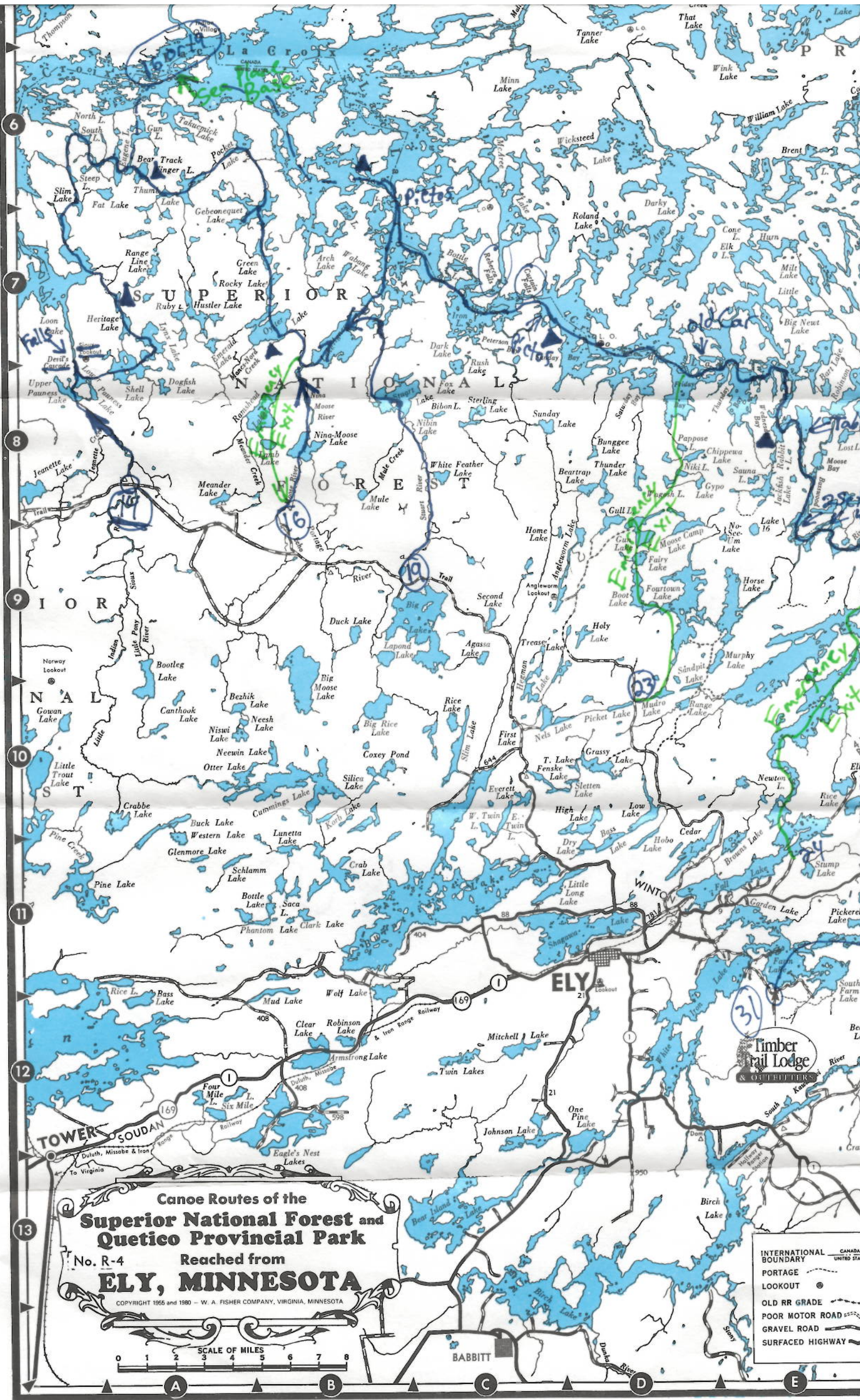
We have assessed all aspects of our trip in order to reduce the overall cost as much as possible. First, we have chosen to drive Isaac's car from Seattle up to Minnesota rather than fly there. We've estimated the cost of gas for driving one way to be around \$215, as oppose to flying where each one way ticket would cost upwards of \$300.

In terms of food, we will be purchasing all of our items at bulk food stores before reaching Ely. Additionally we will not be purchasing any meat for our trip, which is often the most expensive commodity. We will not be buying any white gas or other fuel for cooking. Because we have access to firepits on our route we will collect firewood and eliminate the need to buy any fuel to cook with.

We have chosen to have our exit point for the trip at Farm Lake, where our canoe outfitter is located, and therefore we will not be in the need of a shuttle at the end of the expedition.

The only part of our trip where we have chosen a more expensive option is in choosing to rent a kevlar canoe rather than an aluminum one (\$39 a day vs. \$22). However, we feel that this choice is rightly justified considering the amount of miles we would like to cover in 17 days. We are choosing to cover 200 miles. While the aluminum canoe is a cheaper option, it is also slower, clunkier, and much louder than a kevlar canoe. The kevlar canoe will allow us to travel at a faster pace without disrupting the wilderness and wildlife around us. Paddling and trying to fish out of an aluminum canoe can produce quite a bit of noise, and we would like to do our best to respect the wilderness and wildlife around us, as well as, other travelers that may be trying to experience it. Additionally, we just feel it would be a lot harder to appreciate the quiet and pristine wilderness we will be entering when we are clunking around in a loud metal canoe.





**Canoe Routes of the Superior National Forest and Quetico Provincial Park**

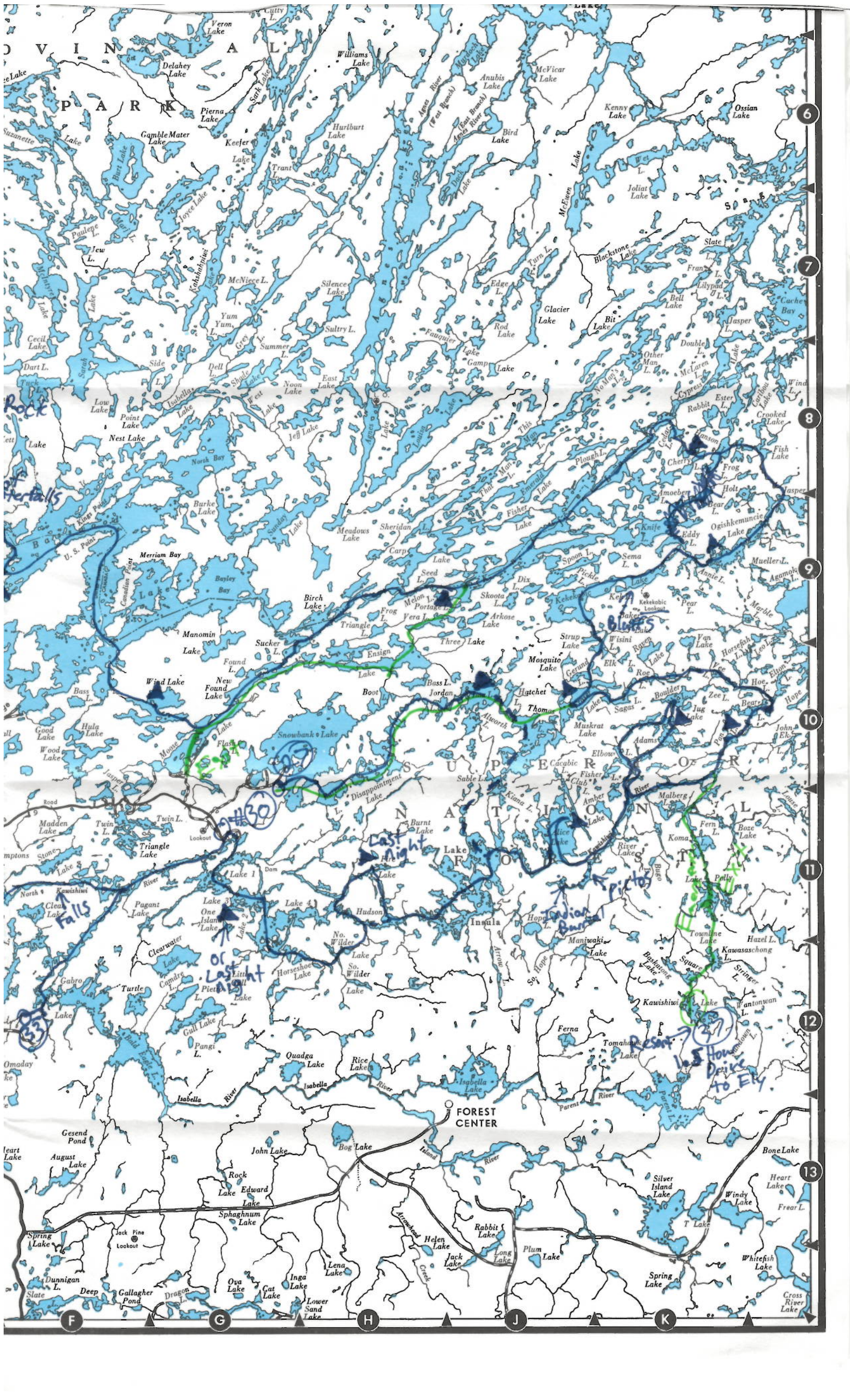
No. R-4 Reached from **ELY, MINNESOTA**

Copyright 1955 and 1980 - W. A. FISHER COMPANY, VIRGINIA, MINNESOTA



- INTERNATIONAL BOUNDARY
- PORTAGE
- LOOKOUT
- OLD RR GRADE
- POOR MOTOR ROAD
- GRAVEL ROAD
- SURFACED HIGHWAY





D V I N A L

P A R K

Veron Lake, Williams Lake, Anubis Lake, McVicar Lake, Kenny Lake, Ossian Lake

Delaney Lake, Pierna Lake, Hurlburt Lake, Bird Lake, Blackstone Lake, Joliat Lake

Gamble Mater Lake, Keefer Lake, Silence Lake, Edge L., Turn L., Bell Lake, Lilypad L., Cache Bay

McNiece L., Yum Yum L., Sultry L., Rod Lake, Glacier Lake, Bit Lake, Fran L., Jasper L.

Paulege L., Jew L., Kookaburra L., Fauquier Lake, Gamp Lake, Double L., McLaren L., Wind L.

Cecil Lake, Side L., Dell L., Noon Lake, East Lake, No Man L., Cypress L., Ester L., Crooked Lake

Dart L., Low Lake, Point Lake, Isabella Lake, Jeff Lake, This L., Plough L., Rabbit L., Frog L., Holt L.

Nest Lake, North Bay, Burke Lake, Meadows Lake, Sheridan Lake, Carp Lake, Spoon L., Sema L., Amoeber L., Ojishkemuncie Lake

Merriam Bay, Bayley Bay, Birch Lake, Melon L., Portage L., Arkose Lake, Three Lake, Strup Lake, Wisini L., Van Lake

Manomin Lake, Sucker L., Frog L., Vera L., Skoota L., Mosquito Lake, Gerund L., Elk L., Roe L., Horsefish Lake

Wind Lake, New Found Lake, Boot Lake, Bass L., Jordan Lake, Hatchet L., Thom L., Sagas L., Boulder L., Zee L., Bear L.

Good Lake, Hula Lake, Moose Lake, Snowbank L., Disappointment Lake, Sable L., Elbow L., Adams L., Muskrat Lake

U.S. Point, Canadian Point, Manomin Lake, Found L., Lake, Bass L., Jordan Lake, Hatchet L., Thom L., Sagas L., Boulder L.

Madden Lake, Twin L., Triangle Lake, Lookout Lake, Burnt Lake, Lake F, Sable L., Kiana L., Amber Lake, River Lake

North v, Kawishwi Lake, Clearwater Lake, Lake 1, Lake 2, Lake 3, Lake 4, Hudson Lake, No. Wilder Lake, So. Wilder Lake

Gabro Lake, Turtle Lake, Camdra L., Little Lake, Horseshoe Lake, Gull Lake, Pangl L., Insula Lake, Hope L., Maniwaki Lake

Omaday Lake, Clearwater Lake, Lake 1, Lake 2, Lake 3, Lake 4, Hudson Lake, No. Wilder Lake, So. Wilder Lake, Insula Lake

Gesond Pond, August Lake, John Lake, Bog Lake, Island River, Ferna Lake, Tomahawk Lake, Maniwaki Lake, Hazel L.

Spring Lake, Jack Pine Lookout, Rock Lake, Edward Lake, Sphagnum Lake, Rice Lake, Isabella Lake, Inisbella Lake, Parent River

Forest Center, John Lake, Bog Lake, Island River, Ferna Lake, Tomahawk Lake, Maniwaki Lake, Hazel L., Kawaschong Lake

Heart Lake, August Lake, John Lake, Bog Lake, Island River, Ferna Lake, Tomahawk Lake, Maniwaki Lake, Hazel L.

Spring Lake, Jack Pine Lookout, Rock Lake, Edward Lake, Sphagnum Lake, Rice Lake, Isabella Lake, Inisbella Lake, Parent River

Dunnigan L., Deep Lake, Gallagher Lake, Dragon L., Ova Lake, Cat Lake, Inga Lake, Lena Lake, Helen Lake, Rabbit Lake

Spring Lake, Jack Pine Lookout, Rock Lake, Edward Lake, Sphagnum Lake, Rice Lake, Isabella Lake, Inisbella Lake, Parent River

Lower Sand Lake, Inga Lake, Cat Lake, Lena Lake, Helen Lake, Rabbit Lake, Long Lake, Plum Lake, Spring Lake, Whitefish Lake

Lower Sand Lake, Inga Lake, Cat Lake, Lena Lake, Helen Lake, Rabbit Lake, Long Lake, Plum Lake, Spring Lake, Whitefish Lake

6

7

8

9

10

11

12

13

F

C

H

J

K

30

33

37

Last Night

Picta

How to Drive to ERY

FOREST CENTER

Rock

Ferfalls

Falls

Or Last Night

UPPER

LOWER

How to Drive to ERY