

Winter Eagle Watching on the Skagit River



Introduction

On Sunday January 7, 2007, I floated the Skagit River from Marblemount to Rockport. I floated the Skagit with my wife, Masako, our daughters, Eleanor and Emi, Andrew Larson, and three of Andrew's friends; Joe Green, Julia Brown, and Michelle. We floated the river in a professional, 8-person inflatable raft. This paper describes the observations from one trip on that single day, plus additional investigation of on-line information available from agencies and organizations related to Skagit River recreation and management.

Recreation Opportunities and Amenities

The recreational opportunities and amenities are nicely combined in this excursion. The recreational activity is floating the Skagit River. The principal winter

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amenity (in addition to the amenity of the river itself) is the presence of a large number of bald eagles (*Haliaeetus leucocephalus*). The bald eagles congregate from all over the Pacific Northwest because of the comparatively benign climate and the concentrated food source provided by returning salmon. The season for viewing the eagles peaks in early January (Skagit Bald Eagle Interpretive Center 2007). The over-wintering eagle population was high in 2007 (Mapes 2007), and visitation was presumably higher because of the increased chances of observing eagles. Our party observed approximately 75 eagles; mostly roosting in trees, but with some on gravel bars feeding and some flying low or soaring above the adjacent uplands. The day was clear and cold: this tends to cause the eagles to stop feeding on the gravel bars earlier. Our party was broadly engaged with the experience, so counting every eagle wasn't the *sine non qua* of the trip.

The Skagit River is also known for its fine recreational fisheries. All five Pacific Northwest species of salmon are present (Chinook salmon (*Oncorhynchus tshawytscha*), Coho salmon (*Oncorhynchus kisutch*), sockeye salmon (*Oncorhynchus nerka*), pink salmon (*Oncorhynchus gorbuscha*), and chum salmon (*Oncorhynchus keta*)). Bald eagles on the Skagit River feed principally on the chum salmon. Steelhead trout are also plentiful and popular with fishermen. Although both sea-run rainbow trout (*Oncorhynchus gairdneri*) and sea-run cutthroat trout (*Oncorhynchus clarki*) are present, fishermen were landing the rainbow steelhead on January 7. For those visitors without boat access, eagles can be viewed from turnouts on Highway 20. Fishing can also be done from the shore, but the depth and temperature of the water imply that few will have the fortitude for this activity in January.

The river is relatively wide, which provides considerable space for different user groups. Generally, the human-powered boaters constitute a user group, although the kayakers and rafters have slightly differing approaches to the trip. The kayakers tend to move faster (i.e. passing the slower rafts and canoes). They also tend to be more individualistic in their approach to the recreation. Other users are traveling as a group, perhaps moderating their behavior when compared to the kayakers. The people using motorized boats have the potential to conflict with the not-motorized users. Powered

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boats are faster, and have the potential to be noisy. However, on this day, the powered boats were being used by fishermen. Therefore, they too were moving slowly and quietly. If power boat users were engaged in boating alone, instead of fishing, the potential for resource conflict would be greater. All the boaters had the potential to conflict with the fishermen, either from proximity or noise. However, boaters were giving fishermen wide berth. Overall, resource users were very considerate of others' experiences on this particular day. If overall usage had been higher, it might not be possible for users to avoid interfering with other groups. There are no capacity restrictions for private parties in place on the Skagit River.

Bird watching is also possible from the shore, either along the river, or at the large turnout on US20. Bird watching from the shore is sufficiently separated from the river that this user group does not interfere with the recreationalists on the water.

The Setting

The Skagit River is located north of Seattle (Fig. 1). It drains the northern portion of the Cascade Mountains in the United States. Although whitewater kayakers use the higher elevation portion of the Skagit and its tributaries, recreational rafters and bird watchers customarily use the flat water section of the river between Marblemount and Rockport (Fig. 2). The river in winter flows at about 10,000 to 30,000 cubic feet per second (cfs), at the Mt. Vernon gauging station. During our float, the river was at about 10,000 cfs, translating into a relatively quick flow and a depth of 50 cm to 2 m. The water is relatively clear, and the bottom can be seen in most places. One ought to be able to see the large fish in the water, but none of our party caught a glimpse of one. The river parallels Washington State Route 20, the North Cascades Highway. Often the river is within 100 m of the road, so the potential exists that the wilderness scenery can be negatively impacted by the presence of the developed corridor. However, whether by design or chance, Highway 20 is well buffered from the river by trees. The entire Skagit valley appears to have been clearcut logged in the early 20th century – vegetation is still predominantly riparian hardwoods (predominantly *Alnus rubra* and *Populus trichocarpa*)

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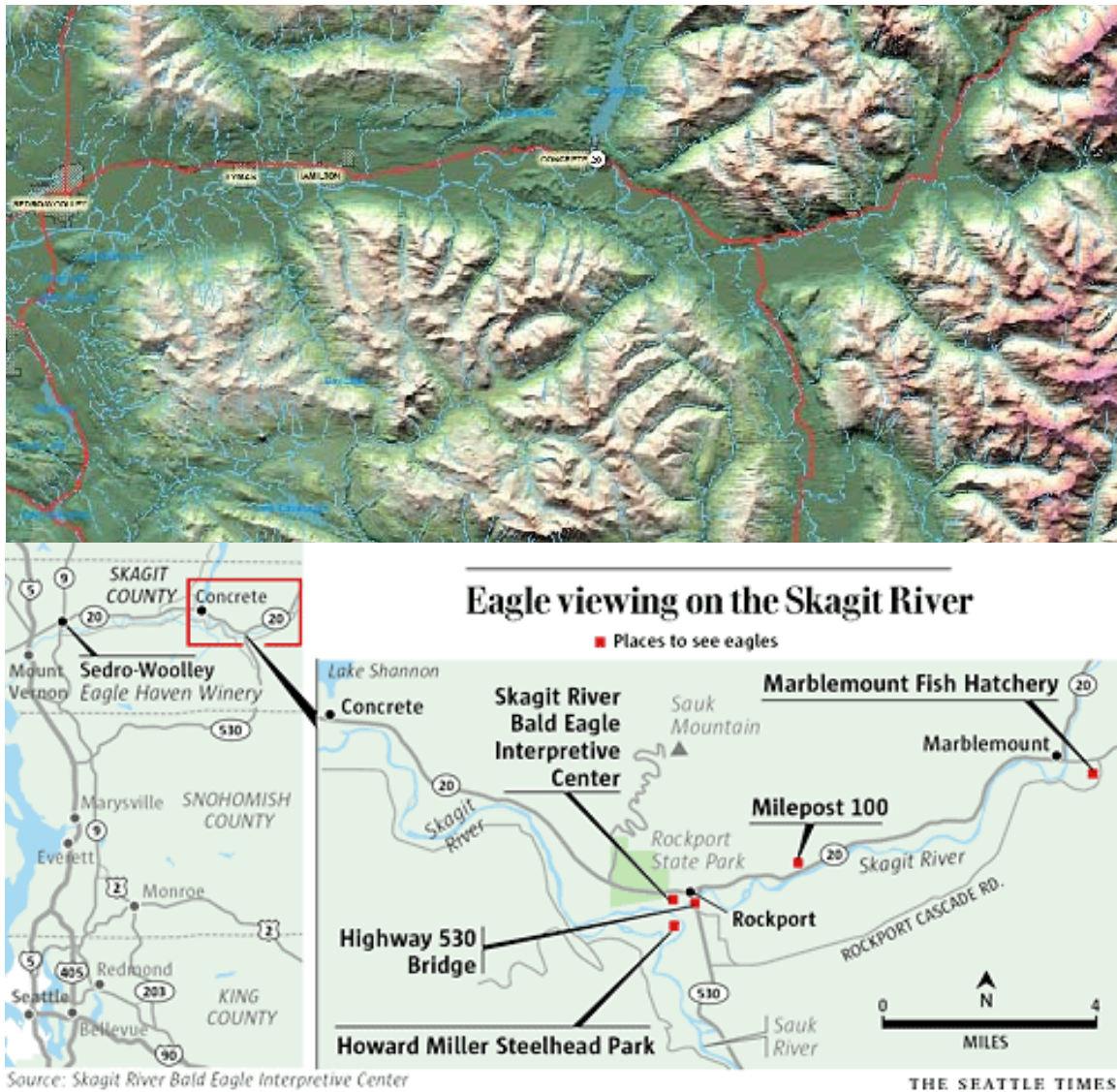


Figure 1. Maps of the Skagit River. **Top:** shaded topographic map of the Skagit River, with Highway 20 shown (Skagit County GIS). **Bottom left:** highway map showing access from the Seattle metropolitan area. **Bottom right:** map of the float from Marblemount to Rockport. The USFS put-in site is immediately to the right of Marblemount. The take-out site at Howard Miller Steelhead Park is immediately to the left of the Highway 530 bridge. Milepost 100 is the location of a large rest area on Highway 20 where eagles can be seen from the shore (Seattle Times).

with remnant conifers (predominantly *Pseudotsuga menziesii*). The hardwood component will soon be entering decline, implying that vegetation will shift towards a higher proportion of coniferous species in the first half of the 21st century. The recreational site is approximately 90 minutes drive from the Seattle metropolitan area,

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providing ready access for urban recreationalists. Since the primary winter recreation involves boats (with their attendant capital expense), the proximity to a high income metropolitan area makes this a popular destination. The primary developed amenities are parking areas and boat ramps at the put-it and take-out spots. The put-in site is owned and administered by the USFS. It features a parking lot with areas appropriate for passenger vehicles and for vehicles towing trailers – an important consideration for a boating site. The put-in site features portable toilets. Although not very luxurious, these facilities are important to the preservation of the resource (and probably to preservation of good relations with the neighbors). The land used for the USFS boat launch is flat, probably alluvial, and waste would quickly find its way into the Skagit. The USFS boat ramp is sufficient for any reasonable boat and trailer size. Most of the people using this ramp are launching inflatable rafts, canoes, kayaks, or drift boats. Therefore, launching is by hand and the boat ramp serves as a convenience rather than a necessity. There is no fee to launch boats or to park.

The take-out site is owned and managed by Skagit County Parks, although there are (NB. summer) facilities that are leased to concessionaires (a campground and snack-bar – neither of which were open on January 7th). This site is significantly more developed, with permanent toilet facilities, manicured grass, and well placed picnic tables. The boat ramp is wider and more robustly constructed. It is likely that all power boat launches would be from this ramp. There is no charge for parking or the boat ramp. This facility, the Howard Miller Steelhead Park, is close to (but not within friendly walking distance) of the Skagit Bald Eagle Interpretive Center. While it would be desirable to link the interpretive center with the major recreational location, people either need to drive between the two or endure a short but unattractive road walk.

The Visitors

The primary users of the site are recreational boaters, followed by recreational fishermen, followed by people observing birds from the shore. In keeping with the winter weather (the daily high on 1/7/2007 was below freezing), the visitors are active

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outdoor-oriented recreationalists. Visitor demographics were gained from observation as opposed to interviews, and represent only those visitors present on Sunday, January 7, 2007.

Almost all visitors appeared to be from outside the local community. Visitors arrived in private vehicles with all of their equipment and food, or they made a rendezvous with professional guides at the boat ramps at Marblemount and Rockport. Visitors appeared to be in their 20s to 50s, with very few children present. The lack of children on the river was puzzling, as the activity would appear to be quite age-appropriate. Further, it would seem that introducing children to winter recreation would encourage them to enjoy a greater variety of wildland recreation in the future. Lack of early introduction to a variety of wildland recreation would appear to potentially increase the deleterious effects of a citified life (Louv 2006).

Visitors were generally in small groups or guided groups. I observed two guided raft trips, each of two boats with approximately 10 people per boat. The few individuals present were engaged in fishing from the shore or bird watching from the shore. A large group of kayakers (apparently a club) put-in about 30 minutes after our party. Visitors appeared to be about 60% male, 40% female, but everyone fishing appeared to be male. Visitors were almost exclusively caucasian (my wife (Japanese) and children (Eurasian) appeared to be the only non-caucasians), significantly different from the ethnic makeup of the greater Seattle metropolitan area. Apparent socio-economic status was generally moderate to high. The capital expense of boats, vehicles and trailers (for those owning them) or for trips (for those on guided parties) would seem to preclude these recreational activities for those without at least some disposable income. Guided raft trips cost about \$75 per person, and guided fishing trips cost about \$250 - \$350 per day.

Visitation appeared to be exclusively day use. Lodging is not well developed in the area, which is only 90 minute's drive from Seattle. Local campgrounds are open in the summer which would change the usage profile. The preferred areas for visitation are those with more eagles: these areas are near the take-out point. However, the preceding miles are just as enjoyable for the float experience.

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Visitors use a variety of watercraft (rafts, kayaks, canoes, drift boats and jet boats). Given the different navigational requirements for these watercraft, the potential would exist for goal interference. However, on this day, each type of boater was considerate of the preferences of the others. Further, the boaters were all paying due consideration to the space required by the people fishing from shore. People desiring to watch eagles from the shore do so near the turnout at milepost 100 of Highway 20.

An additional small but significant group of users are the docents supporting the Skagit Bald Eagle Interpretive Center. These people provide information to visitors and also perform most of the daily bird counts.

Organizations and Agencies

The principal coordinating agency for these recreational opportunities is the USDA Forest Service, which is tasked with implementing the Skagit River Wild and Scenic Act. Although the Wild and Scenic Rivers Act was passed by Congress in 1968, it was only in 1978 that the 158.5 miles of the Skagit, Sauk, Suiattle, and Cascade Rivers were added to the Wild and Scenic River System. The ownership of the Skagit River system is 44% USFS, 6% other government agency (principally the Washington State Department of Transportation and Department of Natural Resources), Seattle City Light, and 50% private ownership. Most of the government owned land is in the higher elevation reaches of the river, and the lower elevation portions (where this recreational opportunity takes place) are in private ownership. Private ownership along the river is primarily small parcels (Fig. 2, Skagit County GIS 2007). However, in recent years The Nature Conservancy has been purchasing land that is favored by over-wintering eagles. This land is concentrated on the southern bank of the Skagit River near Rockport.

Although the USFS is the lead agency for the Skagit Wild and Scenic River System, they have little statutory authority over land use on the parcels abutting this float from Marblemount to Rockport. While I did not speak with USFS managers, their situation is probably similar to the experience Tim Stone described in managing the Pacific Crest Trail (Stone 2007). On the Skagit, some private land owners were clearly

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cooperating to preserve the natural views of the river. Some land owners were not. A small minority of land owners appeared to be of very low socioeconomic status with very long tenure on their property. Over time, it may be likely for their parcels to be sold to an organization such as the Nature Conservancy – purchase of only a few visually unappealing properties could improve the recreational experience and presumably the undisturbed habitat that the eagles require.

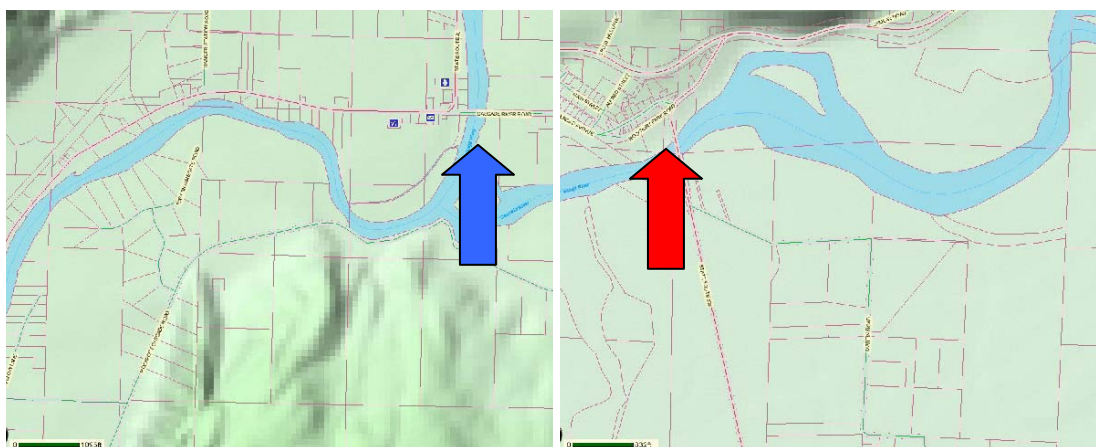


Figure 2. Parcel ownership maps for the put-in site near Marblemount (left, blue arrow) and the take out site near Rockport (right, red arrow). It is important to note the large number of parcels abutting the river. Almost all of these parcels are in private ownership. The USFS has no direct statutory authority regarding use of these parcels except in relation to river flow and the condition of the immediate river bank. Parcel maps from Skagit County on-line GIS.

Neither the USFS, Skagit County Parks or The Nature Conservancy actively police the area (no personnel were observed at the put-in or take-out). As the USFS is primarily engaged in the provision of dispersed recreational opportunities, and has limited budget, the lack of direct presence is consistent with their situation. Although I did not observe any patrolling at the Howard Miller Steelhead Park, its relative convenience to the highways and good upkeep suggest that county police and maintenance staff visit periodically.

There is some potential for recreationalists to disturb the eagles while they are feeding. However, all parties appeared to be adhering to the recommendation (posted on the USFS web site) to begin floats after 10:00AM. No one was observed in any behavior

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that could be considered detrimental to the resource. Both the put-in and take-out places were clean and free from litter.

Assessment

As a restorative experience, eagle watching on the Skagit River is outstanding. Because of the free flowing nature of the Skagit and the cooperation of the agencies and (most) private landowners, the visitor receives a quality wilderness experience. This is in spite of the fact that Route 20 is seldom more than 100 m from the northern bank of the river, and that many residences (some in need of considerable maintenance) are located within 50 m of the southern bank. The view shed of the river appears to be managed on the north, and the proclivity of the Skagit for flooding probably reduces construction on the southern bank. The resulting screened effect of private houses corresponds to



Figure 3. Pictures demonstrating the restorative experience of floating the Skagit. Stopping along the way to cook lunch is an opportunity only available to those traveling with their own boats. The commercial float trips do not stop, presumably because of the additional time and because of the licensing requirements of food service.

preferred vistas (Kearney *et al.* in preparation). Visually, observing eagles from a raft provides many examples of quiet fascination (*sensu* Kaplan and Kaplan 1989, Kaplan *et al.* 1998). The complex and changing vegetation from shoreline to the far mountains provides a sense of extent, and because the river furnishes most of the motive power, the wilderness can be enjoyed quietly with little expenditure of energy. Stopping along the

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way provided our party with an excellent period for reflection and savoring the experience of being away.

In terms of economic impact, the local community appears to be trying to bring commerce into the community. However, most of the visitors appeared to be coming from Seattle for a day trip and bringing all of their supplies with them. As the recreation is free, the principal cost is the capital expense of the boats, fishing gear and associated vehicles. Even the guided parties do not always contribute to the local economy. About half of the USFS licensees for guiding are based near Marblemount or Rockport.



Figure 4. Amenities provided at the USFS put-in site. The parking area is graveled. Neither the parking lot or the boat ramp need much maintenance. The USFS has, with minimal expense, provided a facility that increases the ability of people to access the recreational opportunities of the Skagit River.

From the perspective of a manager supplying recreational amenities, this activity illustrates the concept of leverage. The required facilities for this activity are really only the parking lots and the boat ramps (with portable toilets also necessary to protect the resource). At the USFS put-in, the parking lot was scraped out with a bulldozer, and the boat ramp is small (Fig. 2). Maintenance for both is probably negligible – the boat ramp is protected from the river current by a bridge abutment, and the parking lot probably only needs to be graded and graveled once a year. Yet with this small capital investment, eight miles of river is opened to recreation by a variety of participants. Due to the seasonal nature of visitation, it would be difficult to suggest improvements that would be

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cost effective for the agencies involved. Some private benefit might be gained from offering hot caffeinated beverages at the put-in point.

While the immediate local economy apparently does not benefit economically from the activity at the USFS put-in, the recreational amenity benefits a large number of people from the Seattle metropolitan area (Csikszentmihalyi and Kleiber 1991, Haggard and Williams 1991, Jensen 1995). While this recreational activity is not accessible or attractive to everyone, it is a good example of how agencies can cooperate in the provision of recreational amenities, and also proof that a small investment in facilities can create recreational opportunities where few existed previously.

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