



Community Based Angler Management Plan

Chugach National Forest
Cordova Ranger District
2012

Prepared by Tim Joyce
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INTRODUCTION

Angler effort has been increasing over the years on the Copper River Delta. The catch and harvest by sport anglers from 2000 to 2004 was two to three times greater than in the 1990's (Marston 2005). Transportation in and out of Cordova has become easier with convenient airline schedules and daily service from the Alaska Marine Highway System. People around South Central Alaska and elsewhere are discovering that fishing in Cordova can be enjoyable and rewarding.

These angler tourists bring money into the community through their purchases of goods and services. Many businesses depend on these anglers for the last push in their revenues prior to the onset of the slow winter season. The commercial salmon season is slowing down at the time the sport angling effort is peaking with many commercial fishing permit holders either putting their equipment away for the year or have already left the area for the winter. The sport angling effort provides a shoulder of economic activity after the intense summer activity period. In Alaska, it is estimated that nonresident anglers spend an average of \$448 per day fishing (Southwick Associates Inc. et al. 2008). The city government also benefits from the economic activity that is generated from this tourist economy through sales taxes and economic growth.

Although sport anglers utilize many of the local streams from May through September, the largest percentage of effort occurs during the late summer coho salmon (*Oncorhynchus kisutch*) return. The increasing number of anglers has started to create some conflict among and between user groups (Cordova Times 2004). Some local anglers have reduced their efforts because of the increasing number of anglers in their favorite areas. Some commercial fishermen see the increasing effort as a potential threat to their commercial harvest. Some members of the community were concerned about the potential for resource damage if a plan of action was not developed to address the increasing number of anglers on the Copper River Delta.

Most of the area utilized by the recreational anglers is on the Chugach National Forest. The National Forest lands on the Copper River Delta are managed with an emphasis on the conservation of fish and wildlife and their habitats (ANILCA 1980, USDA FS 2002). The rapid increase of angler effort has exerted pressure on the community and land managers to meet the needs of these users in providing a safe and healthy environment for this recreational activity while protecting the resource. In some of the high use areas there are signs of stream bank erosion. Trampling of the stream banks can lead to erosion (Clark and Gibbons 1991, King 2002) which could reduce the quality of spawning and rearing habitat (Suttle et al. 2004, Tappel and Bjorn 1983).

Anglers often utilize sections of streams located at easily accessible locations such as intersections between roads and streams. Parking along the Copper River Highway near bridge crossings is a hazard for both the pedestrian anglers and passing traffic. This section of highway is the only corridor from Cordova to the airport which provides jet service in an out of the area. High speed traffic and anglers focused on fishing is an unsafe condition with a high potential for accidents.

The concentration of people in easily accessible locations often leads to trash, such as food and beverage containers, cigarette butts, fishing line and lure packaging, being left at the location. The lack of restroom facilities in areas of high use creates an unhealthy and unsightly situation. These conditions may reduce the quality of the user experience.

As crowding increases in the easily accessible locations, some anglers will expand to other areas to fish. This expansion can lead to trespassing on private lands. Many of the smaller streams may receive more angling pressure which could adversely affect the fish populations in these systems (Lang 2010).

In 1995, the Alaska Regional Development Organizations concluded that a lack of basic public infrastructure was one of the greatest barriers to orderly tourism industry development. The city of Cordova has identified visitor industry improvement strategies one of which is to enhance the recreational and outdoor opportunities by developing recreation and sport fishing areas (City of Cordova Comprehensive Plan 2008).

The Group

The US Forest Service, as the major land holder in the area, responded to the public concern by organizing public meetings which included the other land holders in the area, regulatory agencies, local government, commercial fishing interests, local businesses, sport anglers and the general public. This group developed objectives to be achieved and suggested issues to be addressed to achieve those objectives. Those that were in attendance for at least one meeting are:

Tim Joyce – USFS	Al Fulton – Sport Angler
Deyna Kuntzsch – USFS	Bill Webber – Business Owner/Commercial Fisher
Bob Behrends – USFS	Jerry Bendzak – Sport Angler
Brian Nielson – USFS	Dennis Rose – Business Owner/Sport Angler
Sam Hochhalter – ADF&G	Dan Nichols – Business Owner/Commercial Fisher
Rob Morrisett – AK State Troopers	Clay Koplin – Business Manager/Sport Angler
Teresa Benson - USFS	Torie Baker – Commercial Fisher/Advisory Committee

The objectives in creating this community based angler management plan for the West Copper River Delta include:

1. Provide as safe an environment for the angling public as can reasonably be expected in a natural setting.
2. Provide sanitary and healthy conditions in those areas of high use.
3. Create an enjoyable experience for the anglers in the area.
4. Prevent habitat damage and other activities that will impact the long term productivity of the watersheds involved.
5. Provide a framework for public input on infrastructure improvements that might be incorporated into the Plan.

This plan does not commit any individual, organization, or agency to any action or financial obligation. All the issues and suggested solutions were generated by the public and were agreed to be incorporated into the plan by consensus by the public members. Some suggestions were of a regulatory nature and would require actions by a body such as the Board of Fisheries. Those actions would necessarily need to be pursued by public members.

Our Goal

To provide a safe and enjoyable angling experience to all anglers with the least amount of impacts to the resources and include the viewpoints and desires of local business, industry and community members in order to generate economic activity in the community.

Knowing that each year is unique in angling conditions depending on water flows, turbidity, weather, size of return and location of return, this plan must be dynamic in nature allowing for modifications as conditions change. The plan can provide short term solutions to immediate problems and a long term strategy to develop the infrastructure needed to conduct an orderly and enjoyable fishery.

A variety of solutions may be able to address some of the short term issues. Solutions to long term issues will require partnerships to be developed with agencies, businesses and the community. Some of the focus areas of the Chugach National Forest intend to further the Forest as an economic engine for our Communities, Region,

State and Nation and sustain strategic partnerships and encourage community collaboration. This plan is expected to encompass those focus areas. The community based planning effort will insure that any recommendations made will come from members of the community that have a vested interest in this activity.

METHODS

The first public meeting held on April 21, 2009 was used to bring the different groups of users and regulators together to determine some of the main issues of concern. These issues were diverse and concerned both land management as well as regulation issues. Following the meeting the issues were organized into categories with similar concerns melded into a general topic for a later more organized discussion of each topic.

The second public meeting held on August 14, 2009 updated the group on what items originally proposed had been acted on and to what degree. For example, law enforcement was putting two officers on the Eyak and Ibeck Rivers to monitor the sport fishery.

The third public meeting on November 10, 2009 resulted in each topic being discussed individually and recommendations on how to develop a possible solution or plan to address the separate issues in that topic. Not all of the issues had feasible solutions and some were dropped from consideration after a thorough discussion.

ANGLER MANAGEMENT ISSUES

Issue 1. Unintentional resource wastage

Explanation:

Catch and release is a common practice in many sport fisheries. However, it appears that coho salmon when first entering freshwater are very sensitive to handling, which results in excessive mortality of released fish.

Recommendations:

1. Only use single hook lures
2. Do not use bait
3. Educate the users on the proper methods of release
 - a. Laminate current catch and release information brochure and distribute to hotels, B&B's and rental car agencies for permanent installation in individual rooms and rental cars.
 - b. Provide brochures to Chamber of Commerce for distribution.
4. Adopt regulations to be able to release fish only if the bag limit is not reached. Once the daily bag limit is reached, fishing must cease.
5. Allow the harvest of up to 10 jack salmon (less than 16 inches).
6. Do not allow the intentional release of salmon caught with roe (eggs).

Issue 2. Enforcement of existing regulations

Explanation:

Concern was expressed about anglers harvesting one limit in the morning and then returning in the afternoon to harvest a second limit of salmon. Additional enforcement in the area was expressed in order to keep the fishery fair and functional.

Recommendations:

1. More undercover work on Eyak River
2. Additional uniformed presence at varying times throughout the day and not at specific times at all locations.
3. Provide a contact number to report violators after normal work hours.
 - a. Include contact numbers on information brochure.
4. Explore new ways to record harvest to prevent multiple limits in one day.
 - a. Record harvest via punch card.
 - b. Man a check station.
 - c. Have processors report harvests that look suspicious in number of fish.

Issue 3. Uninformed anglers standing in river boat channel

Explanation:

Jet boats require speed to maintain maneuverability in shallow waters. Anglers will often wade into the river and stand in or near the channel and cast across the river leaving no room for boats to pass safely.

Recommendations:

1. Produce a 5 minute video on boat and angler etiquette for distribution to hotels and B&B's
2. Place information signs along the river informing anglers of multiple use and jet boat traffic.

Issue 4: Insufficient parking at Eyak Lake Boat launch

Explanation:

Increased use at the Eyak Lake boat launch especially in August and September has created congestion, accidents, and long delays. The lack of parking signs and instructions increases confusion by visitors. Enhance existing facilities.

Recommendations:

1. Expand the parking area.
2. Provide additional boat launching facilities.
3. Make an explicit parking plan and provide signs with directions now.
4. Enforce the 24 hour moorage limit along the shoreline at the boat launch.
5. Make the parking lot a 24 hour limit allowing longer parking times by permit only visible though the windshield to accommodate weekend waterfowl hunters.
6. Install a fish cleaning station with cutting board surface in water to cleanup shoreline of fish carcasses and guts.

Issue 5: Angler crowding at Ibeck and Eyak

Explanation:

Angler use is increasing in areas already with high use. It would be desirable to spread the effort without increasing effort on small streams with vulnerable runs.

Recommendations include:

1. Provide for additional fishing opportunities at Hartney Bay such as fishing above the bridge.
 2. Provide for additional fishing opportunities at Orca Bay Creek.
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3. Promote Fleming Spit fishing.
 - a. Increased bag limit already exists.
 - b. Allow snagging in salt water earlier to allow harvest of hatchery stocked fish that are otherwise wasted.
4. Promote Humpback Creek fishing.
 - a. Accessible by boat only at this time, but plans are to extend road to area to access hydroelectric facility.
 - b. Potential area for pink salmon fishing and enhanced coho salmon fishing.
5. Check on feasibility of salmon stocking at 3-Mile Bay
6. Provide accessible fishing opportunities at Mile-22 recreation area.

Issue 6: Parking and sanitation at Ibeck Creek

Explanation:

Parking along the Copper River Highway at Ibeck Creek exposes anglers focused on fishing to high speed traffic and inadvertent contact with gear or the person themselves. No restroom facilities are available within close proximity of this system created a situation of uncontained human waste.

Recommendations:

1. Turn the area where the old state building is located near Ibeck Creek into a parking area when it is removed and cleaned up.
2. Widen a portion of the dike road into a parking area.
3. Analyze other parking options south of the Copper River Highway near Ibeck Creek.
4. Install Porta-Potties at dike road during August and September starting this year.
5. Install a fish cleaning station below the highway bridge on Ibeck Creek with cutting board surface.
6. Restrict fishing from bridges or slow traffic in the area to reduce the likelihood of accidents.

Issue 7: Bear and human interactions on streams

Explanation:

Many of the smaller systems or in the upper reaches of the larger systems where salmon hold or spawn are areas where bears tend to congregate. Expanding angler effort into these areas will eventually create bear and human conflicts.

Recommendations:

1. Prohibit angling in spawning areas of Ibeck Creek and in the 18 mile system
2. Educate anglers on what to do when encountering a bear.
3. Post warning signs where bear activity has been documented.
4. Conduct a bear awareness class at school so children know what to do if a bear is encountered.

Issue 8: Fishing in spawning areas.

Explanation:

Large stretches of streams used for migration are currently available to angling. As the angler population increases the trend is to expand area of use upstream to access areas of less use and pressure. Eventually, the range of expansion includes spawning areas of that stream. Habitat damage has occurred in some

locations from continuous traffic. Bear encounters will be more frequent, and fish quality will be reduced.

Recommendations:

1. Identify critical habitat locations and spawning areas on streams on the west Copper River Delta.
2. Protect these critical habitat areas through Board of Fish actions.
3. Correct habitat damage that has already occurred and make efforts to prevent future damage.

Issue 9: Sand blocking salmon migration at some locations

Explanation:

Mountain Slough historically was an open channel that salmon used to migrate into the Eyak River. In the late 1990's, the Scott River broke into the Eyak River depositing large amounts of glacier sand and silt into the Eyak River channel. This sand has blocked the head of Mountain Slough at lower water levels. Changing river levels create an attraction in Mountain Slough for coho salmon only to strand them in the upper reaches of the slough.

Recommendations:

1. Digging a channel through the sand bar at the head of Mountain Slough to allow fish passage at low water levels.
 - a. This idea was recommended to be dropped from consideration as a high water event could plug the channel again.
2. Clear the Scott River Channels such as Wolf Slough to prevent additional sand from being deposited in Eyak River.
 - a. This idea was dropped as channels will fill in during high water or course change of Scott River.
3. Rebuild the banks of Eyak River where the Scott River broke through to prevent additional sand from being deposited in the Eyak River.

Issue 10: USFS land boundaries are not known along river banks.

Explanation:

Fishing guides are legally using the Eyak River boat launch to provide services to clients. Some property owners along the river are also guiding using their own property to access the river. The current Forest Plan direction does not allow for commercial guiding for consumptive use on the West Copper River Delta. US Forest Service property requires a special use permit for commercial guiding activities, but without boundary markers it is not known when guides are on US Forest Service property.

Recommendations:

1. Installing property boundary signs at the junction of Mountain Slough, Ibeck Sand Bar, the S-Turn, and at the Old Cannery Beach.
2. Install information signs regarding guiding at the boat launch.

Issue 11: Poor information dissemination

Explanation:

Many if not most visitors use the Web to look at locations they plan to visit. Information on fishing regulations, safety, guiding, etc. would receive a wide distribution with web postings.

Recommendations:

1. Include information or links to other web sites with information on sport angling on the Copper River Delta such as the City, Chamber, USFS and ADF&G linking to each other for more information.
 - a. Information should include, but not limited to, fishing regulations, jet boat safety, guiding restrictions, how to release fish uninjured, and alternate fishing locations such as Fleming Spit.

One identified project did not have clear support as it conflicted with two issue statements. The issue of spreading anglers out had a recommendation of extending and improving the access trail at Mile 20 to increase accessibility to that system. However, that same system was identified as a spawning area that some felt should be restricted in angler effort. As a result, no action is being recommended at this time on improving access. If Board of Fisheries action curtails fishing in that area there would be little need for improved access.

ANGLER MANAGEMENT 5-YEAR PLAN

The projects identified in the public meeting for angler management are provided with their current status in Table 1. Some issues will require regulatory action through the State Board of Fisheries process. Those actions can be proposed, but the final outcome will depend on the Board (Table 2). Land management actions and infrastructure needs will depend on funding and partnership coordination. An estimated time frame for the projected start and continuation of some potential USFS projects can be found in Table 3. It is anticipated that this plan would be reviewed in 5-year intervals to update its status and address any new issues and new technology that might be available to enhance the angler experience.

Table 1. Status of recommendations made at angler management public meetings.

Project	Completed	In Progress	Not Started
Issue 1: Unintentional resource wastage			
Use only single hooks			X
Do not use bait			X
Information brochures distributed	2009 onward		
Restrict fishing once bag limit is reached			X
Allow harvest of up to 10 jack salmon			X
No release of fish caught with bait			X
Issue 2: Enforcement of existing regulations			
More undercover work on Eyak River	2009 onward		
Additional uniformed presence on streams	2009 onward		
Enforcement day/night phone number provided	2009		
New ways to prevent over harvest			X
Issue 3: Uninformed anglers in river channel			
Short video on boat and angler etiquette			X
Information signs on river about boat operation	2009		
Issue 4: Expand Eyak boat launch parking			
Expand parking area		X	

Provide additional boat launch facilities		X	
Provide parking direction signs		X	
Enforce 24 hr. moorage on shoreline		X	
Make parking area 24 hr. max without permit			X
Install fish cleaning table	2009 onward		
Project	Completed	In Progress	Not Started
Issue 5: Angler crowding at Ibeck and Eyak			
More fishing opportunities at Hartney Bay			X
More fishing opportunities at Orca Bay			X
Promote Fleming Spit fishing			X
Earlier snagging at Fleming Spit			X
Promote Humpback Creek for fishing			X
Feasibility of stocking salmon at 3-Mile Bay			X

Issue 6: Parking and sanitation at Ibeck			
Analyze option for off road parking area			X
Install Port-a-Potties at dike road turn-off	2009 onward		
Install fish cleaning table	2009 onward		
Restrict fishing from bridges	2010 onward		
Slow traffic during intensive use	2011 onward		
Issue 7: Bear/Human interactions			
Prohibit angling in Ibeck Creek spawning areas	2011		
Educate anglers on actions in bear encounters		X	
Post warning signs when bears are present	2009		
Provide Bear Aware classes at grade school	2010		
Issue 8: Fishing in spawning areas			
Identify critical spawning habitat		X	
Protect critical spawning habitat via BOF			X
Correct habitat damage and try to prevent more		X	
Issue 9: Sand blocking salmon migration			
Dig channel thru sand at head of Mtn Slough			X*
Clear sand from Scott River channels			X*
Harden Eyak R. bank from Scott R. intrusion			X
Issue 10: USFS Land boundaries are unknown			
Install property markers on sections of Eyak R	2009		
Install guiding information signs at boat ramp	2009		
Issue 11: Poor Information dissemination			
Provide cross links to City, Chamber, ADF&G		X	

*These recommendations were dropped as the group determined that sand would fill in any channels made at the next high water event.

Table 2. Proposed actions that require regulatory changes or permits.

Project	Action	Responsible Agency	Timeline
Catch/release methods –single hook, no roe	Regulations	Board of Fisheries	2014 BOF
Harvest record – punch card	Regulations	Board of Fisheries	2014 BOF
Raise harvest limit of jack salmon to 10	Regulations	Board of Fisheries	2014 BOF
Processors report suspicious harvest amounts	Voluntary	ADF&G	2012
Hartney Bay expanding fishing area	Regulations	Board of Fisheries	2014 BOF
Stock Orca Bay Creek with coho salmon	Permits	ADF&G	2013
Earlier season snagging at Fleming Spit	Regulations	Board of Fisheries	2014 BOF
Stock Humpback Creek with coho salmon	Permits	ADF&G	2017
Stock 3_Mile Bay with coho salmon	Permits	ADF&G	2017
Reduce bear/human encounters in spawning areas	Regulations	Board of Fisheries	2014 BOF
Restrict fishing from bridges on Copper R. Hwy	Regulations	State DOT/PF	2010
Slow traffic on Copper R. Hwy over bridges	Regulations	State DOT/PF	2011

Table 3. Projects and estimated cost identified for action and proposed year of initiation and completion.

Project	FY2013	FY2014	FY2015	FY2016	FY2017	Completion
Information Brochures	\$1K		\$1K		\$1K	Print in 2013, 2015 & 2017
Additional Enforcement	\$5K	\$5K	\$5K	\$5K	\$5K	Additional patrols started
Short video – boat traffic		\$20K				
Boat traffic signage	\$1K	\$1K	\$3K	\$1K	\$1K	On-going. New signs in 2014
Expand Eyak Boat Launch		\$1,500K				Construction Plans at 99%
Fish cleaning table - Eyak	\$1K	\$1K	\$1K	\$1K	\$1K	On-going
Alaganik fishing option		\$200K				
Ibeck Creek parking area		\$40K	\$100K	\$1,000K		Start NEPA in 2014, design in 2015, construct in 2016
Port-a-Potties at Ibeck Ck.	\$1K	\$1K	\$1K	\$1K	\$1K	On-going
Fish cleaning table - Ibeck	\$1K	\$1K	\$1K	\$1K	\$1K	On-going
Bear Aware at school		\$5K		\$5K		Provide in 2014 & 2016
Bear video for visitors			\$20K			
Bear warning signs	\$1K	\$1K	\$1K	\$1K	\$1K	On-going
Repair habitat damage			\$15K			
ID Critical spawning habitat			\$15K	\$15K		
Harden Eyak River bank				\$5,000K		Prevent Scott River from running into Eyak River
Boundary signs-Eyak R.	\$5K		\$5K			Repair signs in 2013 & 2015.
Guide info signs - Eyak	\$1K	\$1K	\$1K	\$3K	\$1K	On-going, New signs in 2015
Develop web site		\$10K	\$1K	\$1K	\$1K	Develop web-site with links

REFERENCES

Alaska National Interest Lands Conservation Act [ANILCA] of 1980; 94 Stat. 2371; 16 U.S.C 410.

Clark, R.N.; Gibbons, D.R. 1991. Recreation. In: Meehan, W., ed. Influences of forest and rangeland management on salmonid fishes and their habitats. Special Publication 19. Bethesda, MD: American Fisheries Society: 459-481.

City of Cordova. 2008. Comprehensive Plan. Chapter 1; Economic Development; F) Visitor Industry Improvement Strategies. Page 8.

Cordova Times. 2004. First alarming signs of combat fishing appear on Eyak. September 16; Page 5: (col.1-5), page 7: (col.1-3).

King, M.A. 2002. Kenai River riparian habitat studies. Anchorage, AK: Alaska Department of Fish and Game. 76p.

Lang, Dirk W. 2010. A survey of sport fish use on the Copper River Delta, Alaska. Gen Tech. Rep. PNW-GTR-814. Portland, OR; US Department of Agriculture, Forest Service, Pacific Northwest Research Station. 47p.

Marston, B.H. 2005. Area management report for the recreational fisheries of the Prince William Sound Management Area, 2005. Fishery Management Report No.05-61. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish. 75p.

Southwick Associates Inc.; Romberg, W.J.; Bingham, A.E.; Jennings, G.B.; Clark, R.A. 2008. Economic impacts and contributions of sport fishing in Alaska, 2007. Professional Paper No. 08-01, Anchorage, AK; Alaska Department of Fish and Game.

Suttle, K.B.; Power, M.E.; Levine, J.M.; McNeely, C. 2004. How fine sediment in riverbeds impairs growth and survival of juvenile salmonids. *Ecological Applications*. 4: 969-974.

Tappel, P.D.; Bjornn, T.C. 1983. A new method of relating size of spawning gravel to salmonid embryo survival. *North American Journal of Fisheries Management*. 3(2): 123-135.

U.S. Department of Agriculture, Forest Service [USDA FS]. 2002. Revised Land and Resource Management Plan: Chugach National Forest. Alaska Region Management Bulletin R10-MB-480c. Anchorage, AK: Chugach National Forest.