Special Publication No. 06-30

Strategic Plan for the Division of Sport Fish, Southcentral Region, Sport Fishing and Aquatic Education Program

by

L. Saree Timmons

December 2006

Alaska Department of Fish and Game **Divisions of Sport Fish and Commercial Fisheries**

Symbols and Abbreviations

The following symbols and abbreviations, and others approved for the Système International d'Unités (SI), are used without definition in the following reports by the Divisions of Sport Fish and of Commercial Fisheries: Fishery Manuscripts, Fishery Data Series Reports, Fishery Management Reports, and Special Publications. All others, including deviations from definitions listed below, are noted in the text at first mention, as well as in the titles or footnotes of tables, and in figure or figure captions.

Weights and measures (metric)

centimeter	cm
deciliter	dL
gram	g
hectare	ha
kilogram	kg
kilometer	km
liter	L
meter	m
milliliter	mL
millimeter	mm

Weights and measures (English)

cubic feet per second	ft^3/s
foot	ft
gallon	gal
inch	in
mile	mi
nautical mile	nmi
ounce	oz
pound	lb
quart	qt
yard	yd

Time and temperature

day	d
degrees Celsius	°C
degrees Fahrenheit	°F
degrees kelvin	K
hour	h
minute	min
second	s

Physics and chemistry

all atomic symbols	
alternating current	AC
ampere	A
calorie	cal
direct current	DC
hertz	Hz
horsepower	hp
hydrogen ion activity (negative log of)	pH
parts per million	ppm
parts per thousand	ppt, ‰
volts	V
watts	W

General

Alaska Administrative Code	AAC
all commonly accepted abbreviations	e.g., Mr., Mrs., AM, PM, etc.
all commonly accepted professional titles	e.g., Dr., Ph.D., R.N., etc.
at	@
compass directions:	
east	E
north	N
south	S
west	W
copyright	©
corporate suffixes:	
Company	Co.
Corporation	Corp.
Incorporated	Inc.
Limited	Ltd.
District of Columbia	D.C.
et alii (and others)	et al.
et cetera (and so forth)	etc.
exempli gratia (for example)	e.g.
Federal Information Code	FIC
id est (that is)	i.e.
latitude or longitude	lat. or long.
monetary symbols (U.S.)	$, ¢
months (tables and figures): first three letters	Jan,...,Dec
registered trademark	®
trademark	™
United States (adjective)	U.S.
United States of America (noun)	USA
U.S.C.	United States Code
U.S. state	use two-letter abbreviations (e.g., AK, WA)

Measures (fisheries)

fork length	FL
mideye-to-fork	MEF
mideye-to-tail-fork	METF
standard length	SL
total length	TL

Mathematics, statistics

all standard mathematical signs, symbols and abbreviations	
alternate hypothesis	H_A
base of natural logarithm	*e*
catch per unit effort	CPUE
coefficient of variation	CV
common test statistics	(F, t, χ^2, etc.)
confidence interval	CI
correlation coefficient (multiple)	R
correlation coefficient (simple)	r
covariance	cov
degree (angular)	°
degrees of freedom	df
expected value	*E*
greater than	>
greater than or equal to	≥
harvest per unit effort	HPUE
less than	<
less than or equal to	≤
logarithm (natural)	ln
logarithm (base 10)	log
logarithm (specify base)	$\log_2$, etc.
minute (angular)	'
not significant	NS
null hypothesis	H_O
percent	%
probability	P
probability of a type I error (rejection of the null hypothesis when true)	α
probability of a type II error (acceptance of the null hypothesis when false)	β
second (angular)	"
standard deviation	SD
standard error	SE
variance	
population	Var
sample	var

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STRATEGIC PLAN FOR THE DIVISION OF SPORT FISH, SOUTHCENTRAL REGION, SPORT FISHING AND AQUATIC EDUCATION PROGRAM

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December 2006

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This document should be cited as:
Timmons, L. S. 2006. Strategic plan for the Division of Sport Fish, Southcentral Region, Sport Fishing and Aquatic Education Program. Alaska Department of Fish and Game, Special Publication No. 06-30, Anchorage.

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ABSTRACT

The purpose of this document is to provide a strategic plan to guide the sport fishing and aquatic education programs of Southcentral (Region II), Division of Sport Fish, in supporting the overall mission and goals of the Region, the Division and the Alaska Department of Fish and Game. A series of logic models was created for each program element with input from education staff and other regional employees, and short- and long-term outcomes from the logic models were then used to build the vision, mission, goals, objectives and strategies that make up the region's education plan. An action plan is also provided that outlines the items that will be addressed within 2 years.

Key words: Aquatic education, strategic plan, logic model, vision, mission, goals, outcomes, objectives, strategies, action plan.

EXECUTIVE SUMMARY

The purpose of this document is to provide a strategic plan to guide the sport fishing and aquatic education programs of Southcentral (Region II), Division of Sport Fish, in supporting the overall mission and goals of the Region, the Division and the Alaska Department of Fish and Game (ADF&G). A series of logic models was created for each program element with input from education staff and other regional employees, and short- and long-term outcomes from the logic models were then used to build the vision, mission, goals, objectives and strategies that make up the region's education plan. An action plan is also provided that outlines the items that will be addressed within 2 years. The vision, mission, and goals of the plan and the action plan are summarized below.

VISION

Alaskans and visitors to Southcentral Alaska understand and appreciate the unique value of the region's aquatic resources and sport fisheries, the factors affecting them and principles for conserving them, and the role of ADF&G, Division of Sport Fish in sustaining those valuable resources.

Alaskans and visitors demonstrate this understanding and appreciation through responsible sport fishing practices, sustainable uses of aquatic resources, involvement in fishery management, and support for the missions of the Department and Division.

MISSION

The mission of ADF&G is to protect, maintain, and improve the fish, game, and aquatic plant resources of the State, and manage their use and development for the maximum benefit of the people of the State, consistent with the sustained yield principle.

The mission of the Division of Sport Fish is to protect and improve the State's recreational fisheries resources.

The mission of the sport fishing and aquatic education program of Region II, Division of Sport Fish is to foster an informed and educated public that appreciates, respects and sustainably uses the State's fisheries and aquatic resources in Southcentral Alaska, and supports the Division's mission to protect, improve, and manage the use and development of those fisheries and aquatic resources.

GOALS

1. Among children in Southcentral Alaska, cultivate an understanding of the basic fundamentals of fish biology and aquatic resource principles[1], and fisheries and aquatic resources management; and kindle a life-long appreciation and stewardship of aquatic resources.
2. Among adult Alaskans in Southcentral Alaska and visitors to the area, develop an understanding of the basic fundamentals of fish biology and aquatic resource principles, and fisheries and aquatic resources management; and a life-long appreciation and stewardship of aquatic resources.
3. Among Alaskans in Southcentral Alaska and visitors to the area, foster knowledge about and support for the core activities of the Division of Sport Fish used to accomplish its mission: stock assessment, management, hatchery production, access development and maintenance, habitat assessment, information and education, enforcement, and planning and surveys.
4. Encourage and facilitate new anglers in adopting sport fishing as a pastime, and promote responsible sport fishing by children and adult anglers in Southcentral Alaska.
5. Make sport fishing and aquatic education programs accessible to people with disabilities and other underserved populations in Southcentral Alaska.
6. Complement other aquatic resource education programs by developing and nurturing partnerships with other area governmental and nongovernmental agencies when goals are aligned.
7. Recruit, develop, empower and retain a diverse, dedicated, motivated and effective Region II education team in Southcentral Alaska.

[1] For purposes of this plan, “aquatic resources” includes habitat.

ACTION PLAN

- Continue the *Salmon in the Classroom* program (Appendix E) at its 2005 level.
- Implement assessment for the *Salmon in the Classroom* program. This program has been the primary focus of the Region's aquatic education program for many years, but an assessment of the program's outcomes has not been conducted.
- Revise the Sport Fish aquatic education website to accurately reflect current programs.
- Obtain demographic information on participants of the Region's education programs and fisheries.
- Pilot at least two adult education programs. The Region's current education programs and resources are focused on children, and have been for many years. Some resources need to be expended on determining the types of adult programs that would be well received and in piloting them.
- Expand learn-to-fish opportunities, utilizing the Becoming an Outdoors Woman program and kids fishing days. Research long-term mentorship programs and explore ways to incorporate them into existing programs. The Region's education program is very strong in teaching basic salmon biology to children, but opportunities sponsored by the Division of Sport Fish for children and adults to learn to fish and to adopt sport fishing as a pastime have been limited.
- Formulate and implement professional development plans for each education employee.
- Research options for obtaining training in education theory and assessment for employees. Begin rotating employees through the training. Employees in the education program have very strong backgrounds in the biological sciences, but the employee pool is lacking in basic education theory and assessment. All employees need to be well trained in these areas, because they will be implementing assessments, modifying existing programs based on results, and developing new ones.
- Begin development of a program identity, including researching feasibility of standardized employee dress for events (such as vest and shirt with ADF&G logo), and a logotype. The need for standardized employee dress in schools and at events, and the development of standardized print and electronic formats including a logotype is a pressing need for the Region's information and education programs.
- Host a Department-wide Information and Education summit. Although a statewide aquatic education advisory team has been formed, with significant improvement in communication and coordination of Sport Fish education programs, there is limited communication and coordination among other ADF&G information and education programs. A summit would provide a venue to overview all information and education programs in the Department, and would facilitate sharing of information and education across divisions and programs.
- Begin development of a strategic plan for the Region's information program.

INTRODUCTION

The Alaska Department of Fish and Game (ADF&G), Division of Sport Fish (Sport Fish) began dedicating staff and funding to information and education activities in Region II in 1996 when an educational outreach program of the Fisheries Rehabilitation Enhancement Division (FRED, now defunct) was transferred to Region II. Dubbed the STREAM (Salmon Trout Restoration Education and Aquatic Management) program, the goal was "to increase the public's awareness of Alaska's healthy wild salmon stocks through education and the offering of hands-on opportunities" (Kraus 1999) in Southcentral Alaska (Region II; Figure 1). The program, modeled after similar ones in Washington, British Columbia, and Oregon, supported aquariums placed in public school classrooms in which students raised salmon, from eggs to fry. The number of schools in Region II with Sport Fish-supported aquariums increased from 34 in 1996 to 110 in 2004, and the communities served increased to include the Anchorage, Matanuska-Susitna, Kenai Peninsula, Kodiak, and Prince William Sound areas (Kraus 2005a, 2005b; Kraus 2006; Kraus et al. 2000; Kraus and Olson 2003a, 2003b).

In FY05 (July 2004–June 2005), Region II's main aquatic education focus was the "Salmon in the Classroom" program (also called "Salmonids in the Classroom" or "Inclass Salmon Incubation Program"), primarily for elementary students. The program included the following six components, all led by Sport Fish employees: (1) classroom aquariums for raising salmon, from egg to fry; (2) field trips to watch an egg take at a local stream and receive eggs for the aquarium; (3) salmon dissections in the classroom; (4) ice fishing field trips to a local stocked lake; (5) a pilot program focused on aquatic invertebrates and watersheds; and (6) "salmon celebration" field trips to release fry raised in the classroom or to watch release of hatchery fish into a local stream.

From 1996-2003, the Region's aquatic education program also included Adopt-a-Stream and other stream restoration projects with schools and community groups. However, as the classroom aquarium program grew the number of stream restoration projects decreased (Kraus et al. 2000; Kraus and Olson 2003a, 2003b).

In 1997, the Region identified the need for personnel and resources dedicated to responding to the increasing demands of the public for information about sport fishing and Alaska's aquatic resources. This was accomplished by hiring staff specifically to plan, coordinate, and perform Region II information dissemination activities in response to public reaction to regional sport fish management, research, and access programs, and to minimize potential conflict with such programs. In 1999, space in the Anchorage regional office was remodeled into an information center that was more accessible to the public and provided needed space for serving the public.

In 2003, the Sport Fish Mobile Aquatic Education Classroom was added to the Division's information and education programs. The mobile classroom, a 62 ft. long trailer and tow vehicle, is outfitted with microscopes, sampling gear, and other equipment, and is used to complement and support the Division's and Region's various programs by providing classroom space at field trip sites such as fish releases, watershed sampling, and at outdoor shows, the state fair, and in other locations throughout Southcentral Alaska. The mobile classroom is also utilized several times annually for special events in Regions I and III.

Several additional programs are also part of the Region's sport fishing and education program. For example, education staff coordinated and implemented Becoming an Outdoors Woman (BOW) camps for teaching and encouraging outdoors skills and activities among women.

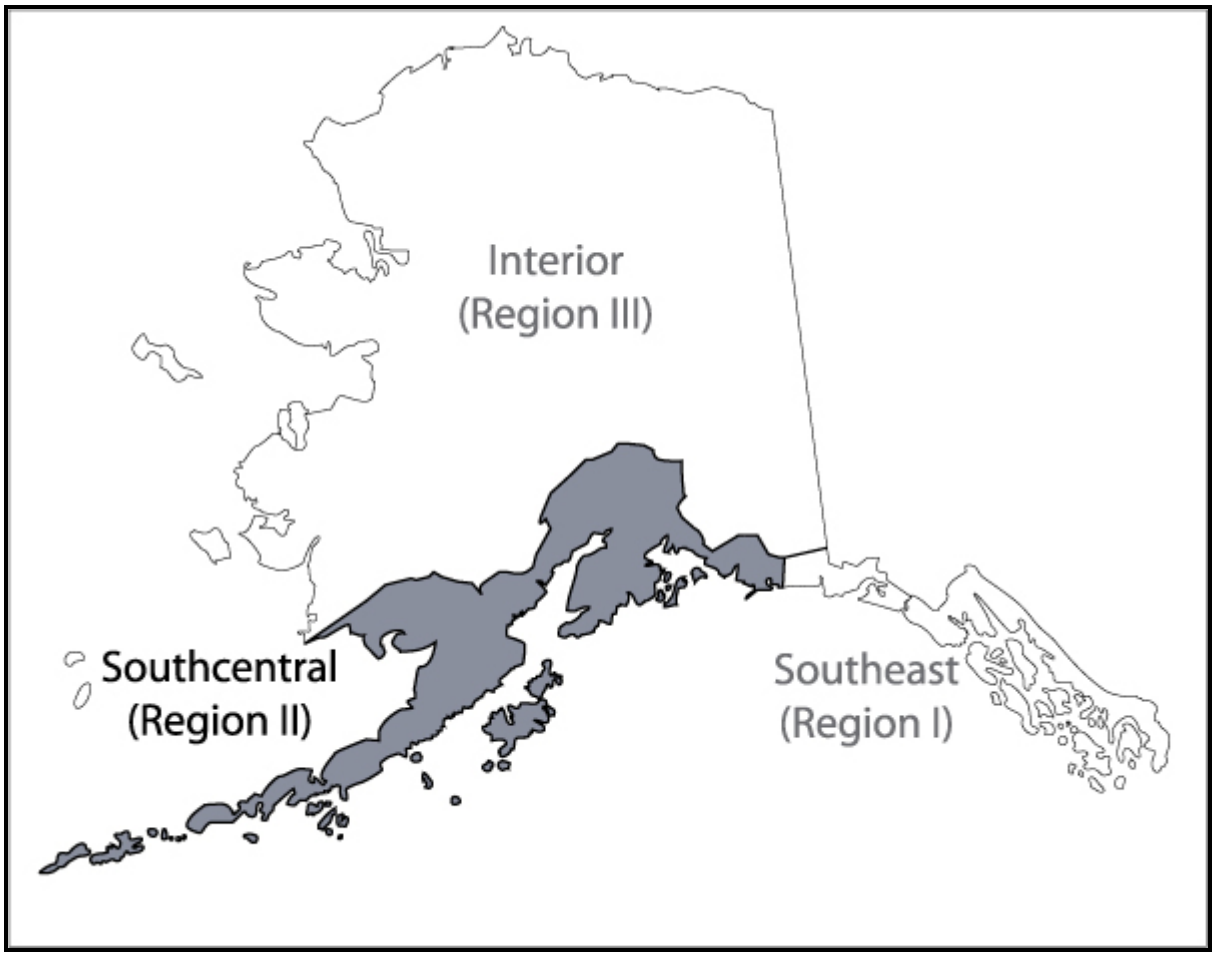

Figure 1.-Location of Region II of the Division of Sport Fish.

For purposes of this plan, ***information*** programs are those that explain and interpret agency positions on management and research programs to a wide variety of constituents, through a wide variety of channels. They can include meeting preparation materials, news releases, brochures, and videos. When the agency wants the public to know something, it turns to information staff to help prepare the message and delivery method. Information programs are often issues-based. In addition, Sport Fish information programs include providing sport fishing regulations, and information on where, when and how to fish, and species available.

Education programs aim to develop an "environmentally literate citizenry…that has the skills, knowledge, and inclinations to make well-informed choices; and exercises the rights and responsibilities of members of a community" (NAAEE 2006). Delivery may take place in a classroom or workshop, or in an informal setting. Sport Fish education programs often focus on conservation principles and sport fishing skills, basic fish biology concepts such as the salmon lifecycle, and the importance of healthy watersheds and habitats, and tend to use curricula and formalized educational standards.

In practice, the difference between information and education is frequently indistinct, and overlap is common. Therefore, in Region II, these programs are interdependent, with staffing, funding, equipment, materials and other resources shared frequently.

HOW TO USE THIS DOCUMENT

The purpose of this document is to provide a plan to guide the education programs of Region II in supporting the overall mission and goals of the Region, the Division as provided in its strategic plan (ADF&G 2002), and ADF&G. This plan does not cover the activities of other programs, regions or divisions, which also contribute to the Division and ADF&G.

Also at this time, no formal strategic plan exists for the Region's information programs. However, recognizing this need, planning efforts will begin by June 2006. Information programs as they support sport fishing and aquatic education efforts are included in this plan.

The vision, mission, goals, objectives and strategies sections below constitute the strategic plan for the Region's education program. These sections provide the criteria ("objectives") by which success of the program will be evaluated. It is recognized that little baseline data for the various program components were available during development of this plan, and that objectives in many cases are arbitrary starting points. As assessments are implemented and data become available, strategies will be modified to meet the objectives as appropriate, and objectives may be refined.

Finally, an action plan is provided that outlines the items that will be addressed within the next 2 years.

Definitions

Terminology for strategic planning varies. Below are short definitions of these elements as used in this plan (from J. Schwarber and M. Burch, ADF&G, Anchorage, personal communication; and sources as cited):

- **Vision**: Describes what success looks like; the desired future state of the program; or how things would look in the future in a perfect world.
- **Mission**: "Why is this program in existence? What is it trying to do…It is a broad, philosophical statement about what the program hopes to contribute. It provides overall guidance for program goals and objectives" (Seng and Rushton 2003).
- **Goals**: "Why are we doing this program? The answers…help define how the program will achieve the mission" (Seng and Rushton 2003). A long-term achievement that contributes to accomplishing the mission.
- **Objectives**: "What, specifically, do we want to accomplish…As a result of this program, participants will be able to ____" (Seng and Rushton 2003). An objective is a measurable statement of purpose; spells out the intended outcome or intermediate results.
- **Strategy**: "An approach, or an implementation methodology, that will lead to achieving a strategic objective" (Blackerberry Assoc. 2005). Strategies are the activities that aquatic education employees will conduct to accomplish the objectives.

PROCESS FOR DEVELOPING THIS PLAN

This section provides a brief overview of how this plan was developed, including identification of a program niche and needs of existing programs, and the use of logic models to identify outcomes and develop the strategic plan.

As employees were added to the Region's education program, it became apparent that coordination of the various activities across the Region was needed, and that there was a need to

carefully articulate the purpose of the program to create a common understanding among Region II staff, program participants such as teachers and parents, and the public as to what the program was expected to accomplish. This was especially true as the program expanded to include area offices, which by 2003 included employees in the Palmer, Soldotna and Kodiak area offices in addition to Anchorage.

Therefore, in June 2004, aquatic education employees, area managers, and regional staff participated in a 2½-day meeting facilitated by Sport Fish planners, to begin development of a plan for the Region's education program. This first meeting primarily focused on describing existing programs. Several follow-up meetings and input from area management biologists, other regional staff, and participants was used to further identify management needs in the areas and strengths and weaknesses of existing programs, and to develop outcomes desired of the aquatic education program. As development of the plan proceeded, those information program components that directly support educational goals were added because of crossover of activities between information and education components, and dependence of information and education programming and employees on each other.

Program Niche

An important early element of program development is to establish a program niche (Hinchcliff et al. 2004), taking into account the organizational strengths, partners and stakeholders, target audiences, analysis of program gaps (both within the agency and in the community), potential competition or redundancy with other programs, and expertise of employees.

Assessing these characteristics, the following was determined to be the program niche for Region II's education programs:

1. ***Audiences***: K-12 students, teachers, and parents in public schools, and adult anglers, both residents and non-residents.
2. ***Primary Personnel***: Professional fishery biologists and fishery technicians. Program participants noted that interaction with fisheries professionals was one of the primary strengths of Region II programs.
3. ***Program Delivery***: In-class presence; partnerships with schools; personal contacts with teachers, students and parents.
4. ***Expertise of the Division***: Conducting highest quality fishery research, best managed fisheries in the world, and providing excellent sport fishing information.

Needs of Existing Programs

During the process of developing this plan, several needs of existing education programs became apparent. Existing programs lacked content concerning fisheries management and the role of the Division of Sport Fish, even though many desired goals and outcomes concerning these were identified for existing education programs during the planning process (Table 1). Although fisheries research is an important component of the Division of Sport Fish, availability of research results to the public is primarily in the form of technical reports that are written for fisheries professionals rather than the layperson. Interpretation and outreach of research results to the public was lacking, as was incorporation of innovative projects and research results into education programs. Most existing programs did not specifically address needs of people with disabilities, and it was unknown if there were other underserved populations (groups of people

who do not use regional Sport Fish education programs because of language, cultural, or other barriers) because demographic statistics for current programs were generally unavailable.

Most importantly, there had been no evaluation of the various program components, particularly "*Salmon in the Classroom*" which had been the main focus of the Region's educational resources. Although outputs (such as numbers of students, presentations, and classes) had been well documented, evaluation is essential to determine if programs should be continued, how they can be improved, and to document whether or not they are producing the desired outcomes (Hinchcliff et al. 2004). Evaluation provides the objective data needed to answer the question "what kind of impact are our programs having on the knowledge, attitudes, or behaviors of our audiences", and is an essential element of best practices for aquatic education (Seng and Rushton 2003). However, before evaluation can be conducted, the vision, mission, goals, objectives and strategies of the program must be defined; but this had not been done for the Region's education program.

Table 1.-Selected outcomes for Region II education programs identified by program employees, teachers, and other stakeholders during the planning process.

Shorter-term Outcomes	Longer-term Outcomes
Students know what ADF&G Sport Fish Division is and does (core activities).	Students understand the role of ADF&G in sustaining fish and wildlife resources in Alaska.
Students in the program know what fishery biologists do. Students meet an ADF&G biologist Students feel they have a connection to a professional biologist. Students think ADF&G is "cool" Students are informed of job/career opportunities available with Sport Fish.	Students are interested in a career in fisheries or natural resources.
Students understand where stocked fish come from, why fish are stocked, and Sport Fish Division's role in stocking fish	Students support the stocking program.
	Students understand management principles of Sport Fish Division for aquatic resources.
	Students believe ADF&G biologists care about their local fisheries resources and their subsistence lifestyle (rural students).

Logic Models

The vision, mission, goals, objectives and strategies of this plan were developed from a series of logic models that were created for each program element with input from education staff and other region employees (Appendices C1-C6). A logic model (Table 2) is a common method for graphically depicting a program. "It shows the relationships between what is put into a program (resources), what the program does (activities and outputs), and what changes (outcomes) the program hopes to achieve" (Innovation Network 2005).

Table 2.-Logic model for developing fishing and aquatic education programs.

Inputs	Throughputs		Outputs	Outcomes		
(Resources)	Activities	Participation	(Counts/Feedback)	Short term	Medium term	Long term
Staff	Presentations	Participants	Number reached	Awareness	Practice	Social
Volunteers	Events	Customers	Experiences	Motivators	Decisions	Economic
Curricula	Curriculum design	Stakeholders	Satisfaction surveys	Knowledge	Action behavior	Political
Donors	Product Dev.	Citizens	Service quality	Values	Stewardship	Civic
Time	Recruiting	Volunteers	Cost per unit	Attitudes	Policies	Environmental
Money	Clinics	Trainers		Opinions		Public relations
Materials	Workshops	Teachers		Skills		
Equipment	Meetings	Youth		Aspirations		
Technology	Assessments	Families				
Partners	Training					

Notes: modified from Seng and Rushton (2003).

Logic models are usually developed during the planning phase of a project or program, and they are usually developed in the following order: long-term outcomes, medium-term outcomes, short-term outcomes, outputs (counts and feedback), throughputs (activities and participation), and inputs (resources) (Seng and Rushton 2003; Table 2). However, most Region II programs had been operating for many years in the absence of logic models or a plan. Therefore, logic models for the programs were developed by first discussing the existing activities and outputs with education employees, area management biologists, and regional staff. These employees then provided information about what they were hoping or expecting (outcomes) from the activities and outputs. Input from participating teachers was obtained from comments on a survey.

Outcomes identified during this process were then refined and grouped into the following categories: basics and awareness of biology, basics and awareness of habitat, stewardship, the mission of ADF&G and Division of Sport Fish, and sport fishing. Outcomes were categorized as short-term or long-term. Most logic models also include medium-term outcomes, but for Region II, most outcomes could be categorized as short-term or long-term so only these two were used, greatly simplifying the model. As an example, some selected shorter and longer term outcomes concerning the mission of ADF&G and the Division are presented in Table 1.

Outcomes were also categorized by the following audiences: all students grades K-6, urban students grades K-6 (defined as Anchorage, Mat-Su, Kenai Peninsula and city of Kodiak), rural students grades K-6 (defined as Bristol Bay, Prince William Sound, and Kodiak villages), urban students grades 5-12[1], rural students grades 5-12, parents and other adult helpers in schools, teachers in the programs, visitors to large events (including residents and non-residents), ADF&G employees, and aquatic education employees. Logic models for some selected programs may be found in Appendices C1-C6.

Short- and long-term outcomes from the logic models were then used to build the vision, mission, goals, objectives and strategies that make up the region's aquatic education plan.

[1] Some programs target older grade school students along with middle and high school.

STRATEGIC PLAN FOR SPORT FISHING AND AQUATIC EDUCATION, REGION II, DIVISION OF SPORT FISH

VISION

Alaskans and visitors to Southcentral Alaska understand and appreciate the unique value of the region's aquatic resources and sport fisheries, the factors affecting them and principles for conserving them, and the role of ADF&G, Division of Sport Fish in sustaining those valuable resources.

Alaskans and visitors demonstrate this understanding and appreciation through responsible sport fishing practices, sustainable uses of aquatic resources, involvement in fishery management, and support for the missions of the Department and Division.

MISSION

The mission of ADF&G is to protect, maintain, and improve the fish, game, and aquatic plant resources of the State, and manage their use and development for the maximum benefit of the people of the State, consistent with the sustained yield principle.

The mission of the Division of Sport Fish is to protect and improve the State's recreational fisheries resources.

The mission of the sport fishing and aquatic education program of Region II, Division of Sport Fish is to foster an informed and educated public that appreciates, respects and sustainably uses the State's fisheries and aquatic resources in Southcentral Alaska, and supports the Division's mission to protect, improve, and manage the use and development of those fisheries and aquatic resources.

GOALS

1. Among children in Southcentral Alaska, cultivate an understanding of the basic fundamentals of fish biology and aquatic resource principles[1], and fisheries and aquatic resources management; and kindle a life-long appreciation and stewardship of aquatic resources.
2. Among adult Alaskans in Southcentral Alaska and visitors to the area, develop an understanding of the basic fundamentals of fish biology and aquatic resource principles, and fisheries and aquatic resources management; and a life-long appreciation and stewardship of aquatic resources.
3. Among Alaskans in Southcentral Alaska and visitors to the area, foster knowledge about and support for the core activities of the Division of Sport Fish used to accomplish its mission: stock assessment, management, hatchery production, access development and maintenance, habitat assessment, information and education, enforcement, and planning and surveys.
4. Encourage and facilitate new anglers in adopting sport fishing as a pastime, and promote responsible sport fishing by children and adult anglers in Southcentral Alaska.
5. Make sport fishing and aquatic education programs accessible to people with disabilities and other underserved populations in Southcentral Alaska.

[1] For purposes of this plan, "aquatic resources" includes habitat.

6. Complement other aquatic resource education programs by developing and nurturing partnerships with other area governmental and nongovernmental agencies when goals are aligned.
7. Recruit, develop, empower and retain a diverse, dedicated, motivated and effective Region II education team in an open work environment in Southcentral Alaska.

GOAL 1 – BASICS FOR CHILDREN

Among children in Southcentral Alaska, cultivate an understanding of the basic fundamentals of fish biology and aquatic resource principles, and fisheries and aquatic resources management; and kindle a life-long appreciation and stewardship of aquatic resources.

OBJECTIVE A: BASICS AND AWARENESS OF SALMON BIOLOGY AND HABITAT, AND STEWARDSHIP

By May 2007, of students participating in Sport Fish education programs,

i. ***Basics and Awareness of Salmon Biology***: 25% of students in upper grade school and middle and high school will have a rudimentary knowledge of salmon biology and basic awareness of local salmon populations, as measured by a score of at least 70% when assessed concerning outcomes listed in Appendix A1.

ii. ***Basics and Awareness of Habitat***: 25% of students in upper grade school and middle and high school will have a rudimentary knowledge of habitat principles and basic awareness of habitat of local streams, as measured by a score of at least 70% when assessed concerning outcomes listed in Appendix A2.

iii. ***Stewardship***: 25% of students in upper grade school and middle and high school will take a personal interest in the well-being of local aquatic resources, measured by a score of at least 70% when assessed concerning outcomes listed in Appendix A3.

The percent of students achieving these scores will increase to 35% by May 2008, and to 40% by May 2009.

iv. ***Participation***: Maintain participation in the *Salmon in the Classroom* program at the following minimum levels for elementary grades: 62 schools and 2,500 students in the Anchorage School District; 19 schools and 1,000 students in the Matanuska-Susitna School District; 13 schools and 350 students in the Kenai Peninsula School District; and 8 schools and 350 students in Kodiak city schools; and increase to a regional total of 200 students for middle and high school grades. Increase and solidify participation of schools and in programs in rural communities of Valdez, Cordova, Dillingham and Kodiak villages.

Strategy 1 – Salmon in the Classroom

Provide and support the *Salmon in the Classroom* program (Appendix E1) for the Anchorage, Mat-Su, Kenai Peninsula, Kodiak, Dillingham, Valdez and Cordova school districts, with the following components: classroom aquariums, egg takes, classroom curriculum and salmon dissections, ice fishing, fly tying, fish releases, watersheds (classroom lectures, lab, streamside data collection), and teacher training[1].

[1] All components may not be implemented for every school district or class.

Review, and revise as necessary, supporting curriculum and other materials to ensure that outcomes in Appendices A1-A5 are addressed. Maintain correlation with State and school district content standards.

Strategy 2 – Urban Participation

Announce all education opportunities using methods such as news releases and the Internet. Publicize educational opportunities and programs at all events in which Region II participates, including outdoor shows, the Mobile Aquatic Education Classroom, fish releases, and at the hatchery. Include an area to prominently display Sport Fish aquatic education programs and materials in all area offices and the Anchorage Sport Fish Information Center (SFIC). Develop and release at least two feature news stories about educational opportunities annually. Explore additional methods for encouraging and informing potential participants.

Obtain input from program participants and others about their needs and preferences for educational programs.

Strategy 3 – Rural Participation

Include an area to prominently display Sport Fish aquatic education programs and materials in all area offices and the SFIC. Explore other avenues for encouraging participation in aquatic education programs, such as radio and community meetings. Maintain and increase contacts and partnerships with rural school districts and communities. Participate in salmon camps and other rural youth events. Develop and pilot a sport fishing and aquatic education program for Bristol Bay.

Explore funding sources to increase staff visits to twice annually to rural communities participating in the *Salmon in the Classroom* program. Investigate feasibility of rotating visits to rural communities to increase number of participating communities. Investigate alternative delivery methods for rural communities, such as distance delivery through audio/visual teleconferencing, and live or taped presentations via cable TV outlets. Explore increasing workshops in Kodiak and Dillingham for rural teachers.

Obtain input from program participants, community members, and others about their needs and preferences for educational programs in rural areas.

Strategy 4 – Incorporate Hatchery Efforts

Assist hatchery personnel with materials, curriculum, presentations, and consultation to coordinate their education activities with the region's *Salmon in the Classroom* program.

Strategy 5 – Electronic Media

Develop and release public service announcements (PSAs), short videos or other materials as appropriate for specific audiences, highlighting the education program and opportunities. Provide a "high exposure" online calendar of all aquatic education activities and events. Keep education website up-to-date, and ensure it reflects program organization, program identity, and encourages involvement, with clear instructions and criteria for participation.

Strategy 6 – Program Identity

Develop and maintain a program identity, including information and education program name and logotype incorporating the ADF&G logo, standard employee dress (such as vest and shirt with ADF&G logo), and continue or revise as needed standard print and electronic formats to be used uniformly throughout both informational and educational materials.

GOAL 2 – BASICS FOR ADULTS

Among Alaskans in Southcentral Alaska and visitors to the area, develop an understanding of the basic fundamentals of fish biology and aquatic resource principles, and fisheries and aquatic resources management; and a life-long appreciation and stewardship of aquatic resources.

OBJECTIVE A: DEVELOP ADULT EDUCATIONAL MATERIALS

By June 2007, develop at least two educational materials for adults focused on the basic fundamentals of fish biology and aquatic resource principles, including habitat, and at least two for fisheries and aquatic resources management, and make them available at all Sport Fish events, area offices, and the SFIC.

Strategy 1 – Identify the Basics

Identify the basic fundamentals of fish biology and aquatic resource principles, and fisheries and aquatic resources management that will be conveyed to adult audiences.

Strategy 2 – Review Current Materials

Review existing informational materials, including brochures, handouts, children's educational curriculum and activities, and regional internet pages, to determine appropriate opportunities to include education for adults concerning the basic fundamentals of fish biology and aquatic resource principles, and fisheries and aquatic resources management; revise as appropriate.

Strategy 3 – Develop Materials

In collaboration with information program staff, obtain input from program participants, community members, and others about their needs and preferences for adult educational programs.

In collaboration with information program staff, develop a series of adult educational materials covering the basic fundamentals of fish biology and aquatic resource principles, and fisheries and aquatic resources management as identified in Strategy 1.

Strategy 4 – Make Education Available

Make educational materials for adults available at all Sport Fish events, area offices, children's education programs, and the SFIC. Explore new avenues for providing aquatic education materials to adults, including the SFIC lobby, community schools, lectures, and other venues. Conduct in-services for teachers participating in other Sport Fish education programs, covering the topics of fish biology, aquatic resources principles, and habitat.

OBJECTIVE B: BASICS AND AWARENESS OF SALMON BIOLOGY AND HABITAT, AND STEWARDSHIP

By May 2007, 25% of adults exiting Sport Fish events or assisting with Sport Fish aquatic education programs will:

i. ***Basics and Awareness of Salmon Biology***: have a rudimentary knowledge of salmon biology and basic awareness of local salmon populations, measured by a score of at least 50% when assessed concerning outcomes listed in Appendix B1.

ii. ***Basics and Awareness of Habitat***: have a rudimentary knowledge of habitat principles and basic awareness of habitats of local streams, as measured by a score of at least 50% when assessed concerning outcomes listed in Appendix B2.

iii. ***Stewardship***: take a personal interest in the well-being of local aquatic resources, as measured by a score of at least 50% when assessed concerning outcomes listed in Appendix B3.

Strategy 1 – Sport Fish Events

Plan, implement, and/or participate in events in Southcentral Alaska, such as kids and family fishing days; Oceans Festival; Alaska State Fair; community open houses; outdoor shows; fishing derbies; and Kenai River Festival.

Strategy 2 – Salmon in the Classroom

Provide and support the *Salmon in the Classroom* program as described in Goal 1, Objective A, Strategies 1-6.

Strategy 3 – New Venues

Explore and develop new venues for delivering programs with more depth to adults, such as lectures, community schools, and presentations.

GOAL 3 – SPORT FISH CORE ACTIVITIES

Among Alaskans in Southcentral Alaska and visitors to the area, foster knowledge about and support for the core activities of the Division of Sport Fish used to accomplish its mission: stock assessment, management, hatchery production, access development and maintenance, habitat assessment, information and education, enforcement, and planning and surveys.

OBJECTIVE A: CHILDREN IN PUBLIC SCHOOLS

By May 2007, of students participating in Sport Fish education programs, 25% of students in upper grade school, and 25% in middle school through high school, will have a rudimentary knowledge of the role of ADF&G, as measured by a score of at least 70% when assessed concerning outcomes listed in Appendix A4.

The percent of students in the program who achieve these scores will increase to 35% by May 2008, and to 50% by May 2009.

Strategy 1 – Salmon in the Classroom

Provide and support the *Salmon in the Classroom* program as described in Goal 1, Objective A, Strategies 1-6.

Strategy 2 – Incorporate Research and Management

Review *Salmon in the Classroom* program to identify methods for introducing innovative and interesting management and research advancements of ADF&G into the program.

Strategy 3 – Incorporate Hatchery Efforts

Assist hatchery personnel with materials, curriculum, presentations, and consultation to coordinate their education activities with the region's *Salmon in the Classroom* program.

OBJECTIVE B: ADULTS

By May 2007, 25% of adults exiting Sport Fish events or assisting with Sport Fish aquatic education programs will have a rudimentary knowledge of the role of the Division of Sport Fish, as measured by a score of at least 70% when assessed concerning outcomes listed in Appendix B4.

Strategy 1 – Develop Materials for Adults
Develop a series of adult educational materials about the core activities of the Division of Sport Fish, explaining how these activities contribute to the missions of the Division and Department, how these core activities contribute to sport fishing and the local and statewide economy and focusing on relevancy of core activities to specific audiences.

Strategy 2 – Review and Modify Informational Materials
Review existing informational materials, including brochures, handouts, children's educational curriculum and activities, and regional Internet pages, to determine appropriate opportunities to include information for adults about the core activities of the Division of Sport Fish as developed in Strategy 1. Modify existing materials as appropriate.

Strategy 3 – Incorporate in Sport Fish Events
Incorporate information about the core activities of the Division of Sport Fish as developed in Strategy 1 into all events and activities.

Strategy 4 – Sport Fish Information Center, Area Offices and Internet
Make materials with information about core activities of the Division of Sport Fish as developed in Strategy 1 available at the Sport Fish Information Center, all area offices, and on the Internet.

Strategy 5 – Sport Fish Events
Plan, implement, and/or participate in events in Southcentral Alaska, such as kids and family fishing days; Oceans Festival; Alaska State Fair; community open houses; outdoor shows; fishing derbies; and Kenai River Festival.

Strategy 6 – Salmon in the Classroom
Provide and support the *Salmon in the Classroom* program as described in Goal 1, Objective A, Strategies 1-6.

Note: parents and other adult helpers assisting with this program, as well as teachers in the program, are considered participants for purposes of this goal.

Strategy 7 – Program Identity
Develop and maintain a program identity, including information and education program name and logotype incorporating the ADF&G logo, standard employee dress (such as vest and shirt with ADF&G logo), and continue or revise as needed standard print and electronic formats to be used uniformly throughout both informational and educational materials.

GOAL 4 – RESPONSIBLE SPORT FISHING

Encourage and facilitate new anglers in adopting sport fishing as a pastime, and promote responsible sport fishing by children and adult anglers in Southcentral Alaska.

OBJECTIVE A: CHILDREN AND ADULTS AT EVENTS

By May 2007, of children and adults exiting Sport Fish exhibits, events and programs:

i. 75% will have awareness and knowledge of the value of sport fishing and sustaining Alaska's aquatic resources as measured by a score of at least 70% when assessed concerning outcomes listed in Appendix B5 relevant to the event.

ii. 50% will have attitudes and skills to sustain and use Alaska's sport fisheries and aquatic resources as measured by a score of at least 70% when assessed concerning outcomes listed in Appendix B5 relevant to the event.

iii. 10% will engage in activities reflecting commitment to sustaining Alaska's sport fisheries and aquatic resources as measured by a score of at least 70% when assessed concerning outcomes listed in Appendix B5 relevant to the event.

Strategy 1 – Sport Fishing Events

Plan, implement, and/or participate in events in Southcentral Alaska, such as kids and family fishing days; Oceans Festival; Alaska State Fair; community open houses; outdoor shows; kids fishing pond at outdoor shows, fishing derbies; Kenai River Festival; rural salmon camps for kids; and Imaginarium fishing camps for kids.

Strategy 2 – Learn-to-Fish Events and Programs

Plan, implement, and/or participate in programs in Southcentral Alaska that teach basic fishing skills, such as fishing clinics for new residents and military personnel and families, kids and family fishing days, kids fishing pond at outdoor shows, Imaginarium fishing camps for kids and long-term mentorship programs.

Strategy 3 – Becoming an Outdoors Woman

Organize, participate in, and support the *Becoming an Outdoors Woman* program in Southcentral Alaska.

OBJECTIVE B: CHILDREN IN PUBLIC SCHOOLS

By May 2009, of upper grade school students participating in Sport Fish education programs,

i. 75% will have awareness and knowledge of the value of sport fishing and sustaining Alaska's aquatic resources as measured by a score of at least 70% when assessed concerning outcomes listed in Appendix A5, items 1-4.

ii. 75% will have attitudes and skills to sustain and use Alaska's sport fisheries and aquatic resources as measured by a score of at least 70% when assessed concerning outcomes listed in Appendix A5 items 5-14.

iii. 20% will engage in activities reflecting commitment to sustaining Alaska's sport fisheries and aquatic resources as measured by a score of at least 70% when assessed concerning outcomes listed in Appendix A5, items 15-17.

Strategy 1 – Salmon in the Classroom

Provide and support the *Salmon in the Classroom* program as described in Goal 1, Objective A, Strategies 1-6.

OBJECTIVE C: FIRST CATCH CARDS

By May 2007, 425 "First Catch" cards will be issued to children who catch their first sport-caught fish at Sport Fish events in Southcentral Alaska. By May 2008, the number will be increased to 450, and to 475 by May 2009. Meeting this objective is dependent on availability of stocked fish.

Strategy 1 – Sport Fishing Events
Plan, implement, and/or participate in events in Southcentral Alaska, such as kids and family fishing days; kids fishing pond at outdoor shows, fishing derbies; rural salmon camps for kids; and Imaginarium fishing camps for kids.

Strategy 2 – Learn-to-Fish Events and Programs
Plan, implement, and/or participate in programs in Southcentral Alaska that teach basic fishing skills, such as fishing clinics for new residents and military personnel and families, kids and family fishing days, kids fishing pond at outdoor shows, Imaginarium fishing camps for kids and long-term mentorship programs.

Strategy 3 – Salmon in the Classroom
Provide and support the *Salmon in the Classroom* program as described in Goal 1, Objective A, Strategies 1-5.

OBJECTIVE D: FISHING LICENSES
By June 2007, 25 fishing licenses and/or harvest records will be issued to new anglers at learn-to-fish events. This number will be increased to 50 by June 2008, and to 100 by June 2009.

Strategy 1 – Learn-to-Fish Events
Plan, implement, and/or participate in programs in Southcentral Alaska that teach basic fishing skills, such as fishing clinics for new residents and military personnel and families, kids and family fishing days, kids fishing pond at outdoor shows, Imaginarium fishing camps for kids and long-term mentorship programs.

Strategy 2 – Becoming an Outdoors Woman
Organize, participate in, and support the *Becoming an Outdoors Woman* program in Southcentral Alaska.

GOAL 5 – ACCESSIBLE SERVICES
Make sport fishing and aquatic education programs accessible to people with disabilities and underserved populations[1] in Southcentral Alaska.

Underserved populations are considered groups of people who do not use regional Sport Fish education programs because of language, cultural, or other barriers.

OBJECTIVE A: PEOPLE WITH DISABILITIES
By May 2006, consult with experts to determine if the main components of the *Salmon in the Classroom* program are accessible to children with disabilities. By May 2008, implement recommendations as funding and personnel allow.

Strategy 1 – Funding
If needed, obtain funding from a corporate or other non-State entity to address recommendations.

OBJECTIVE B: CONTINUE CURRENT OPPORTUNITIES
Continue at the 2005 level the reserved time for children with disabilities during ice fishing events and at the Kids' Fishing Pond during the Great Alaska Sportsman Show.

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[1] Underserved populations are considered groups of people who don't use regional Sport Fish education programs because of language, cultural or other barriers.

Strategy 1 – Kids' Fishing Pond
Ensure that the pond specifications make it accessible to children with physical disabilities.

Strategy 2 – Salmon in the Classroom
Provide and support the *Salmon in the Classroom* program as described in Goal 1, Objective A, Strategies 1-5.

Strategy 3 – Notify
Notify teachers and organizations that serve children with disabilities in Southcentral of the opportunities.

OBJECTIVE C: OBTAIN DEMOGRAPHIC INFORMATION

By May 2007, obtain demographic statistics on all regional Sport Fish aquatic education programs and on at least two sport or personal use fisheries in Southcentral.

Strategy 1 – Compile from Existing Data Sources
Compile demographic statistics from U.S. census and Alaska Department of Education.

Strategy 2 – Conduct Surveys
Develop and administer surveys on at least two sport or personal use fisheries in Southcentral to collect demographic data, and to identify potential underserved populations and needs for information and education.

GOAL 6 – PARTNERSHIPS

Complement other aquatic resource education programs by developing and nurturing partnerships with other area governmental and nongovernmental agencies when goals are aligned.

OBJECTIVE A: AQUATIC EDUCATION TEAM

Develop a statewide Sport Fish Aquatic Education Advisory Team by September 2005.

Strategy 1 – Create a Team
Create an advisory team composed of representatives of Sport Fish aquatic education programs in Alaska. The Team should include representatives from all education programs, research, hatchery programs, Kachemak Bay Research Reserve, habitat programs, Statewide Aquatic Resources Coordination Unit, human dimensions, and Division of Wildlife Conservation education.

Strategy 2 – Team Meetings and Coordination
Coordinate and integrate development, content, and delivery of education programs among Sport Fish entities in Alaska including SARCU (Statewide Aquatic Resources Coordination Unit), KBRR (Kachemak Bay Research Reserve), and invasive species programs. The Team should meet at least monthly.

Strategy 3 – Intranet Activity Calendar
Develop and deploy an intranet calendar for all Education Team activities and events, accessible to all Team members and all Sport Fish employees.

OBJECTIVE B: INTRA-AGENCY RELATIONSHIPS

Develop and nurture relationships with ADF&G staff who work in non-education positions.

Strategy 1 – Personal Requests
Make personal requests to non-education staff for help at presentations and events.

Strategy 2 – Job Descriptions
Create and distribute to non-education staff "job descriptions" explaining specifics of help needed and expectations.

Strategy 3 – Recognition
Recognize staff who assist by such methods as sending region-wide email thank-you's, naming of assisting staff in media interviews and news releases, and providing assisting staff with volunteer incentives such as T-shirts or hats.

Strategy 4 – Evaluation
Survey staff after presentations and events to solicit input and suggestions for improving education activities.

Strategy 5 – Area Reviews
Include attendance of area review meetings in development of annual calendar, and as many education staff as possible attend area reviews.

OBJECTIVE C: COMMUNICATION

Develop a network to share information and broaden communication with ADF&G employees, and with other agencies and entities by June 2007. These could include school districts, Anchorage Waterways Council, municipalities, Center for Alaskan Coastal Studies, Eagle River Nature Center, Campbell Creek Science Center, Imaginarium, Alaska State Parks, and the Alaska Natural Resource and Outdoor Education Association.

Strategy 1 – Staff Lists
Develop and maintain a list of all ADF&G staff involved in education, including program responsibilities. Develop a list of interested agencies and entities for sharing information.

Strategy 2 – Internet Activity Calendar
Provide a "high exposure" online calendar that includes all ADF&G educational activities and events in Southcentral Alaska. Notify potential partners and stakeholders of the calendar.

Strategy 3 – Meetings
Region II Information Services program will host an annual meeting of all Southcentral ADF&G education staff, inviting all ADF&G education staff statewide, potential partners from other agencies, and stakeholders. In addition, each Region II education employee will attend at least one environmental information or education meeting held by a non-ADF&G agency annually.

Strategy 4 – Events
Education staff will participate in a total of at least six events with other governmental agencies or work groups annually (total for all education employees; "events" includes other divisions and work groups within ADF&G).

OBJECTIVE D: INTER-AGENCY AGREEMENTS

Formalize the partnership between ADF&G and the Anchorage School District, including *Salmon in the Classroom,* and the partnership with King Career Center by June 2007.

Strategy 1
Draft, review and obtain approvals for partnership documents.

GOAL 7– WORKFORCE DEVELOPMENT

Recruit, develop, empower and retain a diverse, dedicated, motivated and effective Region II education team in an open work environment in Southcentral Alaska.

OBJECTIVE A: EMPOWERMENT AND OPEN WORK ENVIRONMENT

On the annual education employee survey (Appendix D1), at least 80% of employees will report that:

i. they are motivated and empowered;

ii. their work environment is open, cooperative and efficient.

Strategy 1 – Annual Schedule

Develop an annual schedule each July that includes all events for all areas, training, meetings, and planning.

Strategy 2 – Meetings

A 1-hour meeting for all education employees will be held monthly to provide updates, feedback concerning ongoing programs, and exchange ideas and information. Meetings will be scheduled during development of the annual information and education program calendar. Participation via teleconference is acceptable. Meetings will include information program employees. All education employees will assist with and attend the annual information and education meeting sponsored by the program.

Strategy 3 – Free Expression

Employees at all levels will be encouraged to express ideas and suggestions for the program.

Strategy 4 – Valuing Diversity

All education program employees will attend the SOA class "Valuing Diversity." Additional workshops will be offered as needed.

Strategy 5 – Team Approach

A team approach that provides all employees with a variety of work experiences and work partners will be the preferred method for making work assignments.

Strategy 6 – Employee and Activity Calendar

An interactive calendar on the intranet for employee schedules and educational events, activities, meetings and training will be developed and maintained. All employees are required to keep the calendar up-to-date with activities, whereabouts, and personal leave, as well as with the programs for which they are responsible.

Strategy 7 – Employee Evaluations

Annual employee evaluations will be completed on time.

OBJECTIVE B: PROFESSIONAL DEVELOPMENT AND EFFECTIVE WORK ENVIRONMENT

Annually, each 12-month staff member will take part in at least three opportunities for professional development to enable them to perform competently and excel in their current position; 6- to 11-month employees will take part in at least one opportunity, and 1- to 5-month employees will take part when possible; and on the annual information and education employee survey (Appendix D1), 90% will report that they have the tools, resources and skills to be effective and productive in their jobs. Within 3 years of beginning a new job class, employees will be qualified for the next job level.

Strategy 1 – Professional Development Plans
Each Region II education staff member (all 6- to 12-month employees) will formulate a professional development plan in consultation with their supervisor. The plan will be reviewed and updated annually during the employee's performance evaluation. Plans will specify training, classes, professional meetings, staff exchanges, and stretch assignments (delegations) in which the employee would like to participate.

Strategy 2 – Budgets
Using the development plans from Strategy 1, training and professional development will be identified and budgeted for in the annual Federal Aid budget and any additional budgets available.

Strategy 3 – Scheduling
The annual information and education activity and events schedule for Region II will take into account the need for staff development and will have training and other professional development included during schedule development.

Strategy 4 – Staff Exchanges
Opportunities will be provided for staff exchanges with other regional, divisional, and cross-agency programs in sport fishing and aquatic education, or related programs.

Strategy 5 – Formal Training
Opportunities for participation in classes or training on education theory and methods, public communications, environmental communications or techniques, budgeting, computer skills, and related areas will be investigated and provided for employees.

Strategy 6 – Budgeting and Grants
All full-time permanent education employees will be trained in the Division's budget preparation and management processes, and in grant-writing when possible.

Strategy 7 – Program Needs Assessments and Evaluations
Opportunities for training on needs assessments and evaluations will be provided to all education employees. Most education programs will include evaluation.

Strategy 8 – Delegation
Tasks will be delegated to employees in areas such as planning, budgeting, report writing, and public relations to provide job experience necessary for upper-level positions; employees will be mentored for these tasks.

Strategy 9 – Leadership and Supervisory Development
Interested staff will be given approval to take part in the Division's Leadership Development Program (Brookover et al. 2005). All education program supervisors will complete SOA supervisory training. All supervisors will take at least one leadership training class or workshop annually; other education staff will be encouraged to take leadership training also.

Strategy 10 – Meetings
Communication with Division leadership will be improved by education staff attending as many area reviews as possible; all education staff will attend the regional Information Services program review; and Division and Regional leadership will be invited to regional education program meetings and events as appropriate.

OBJECTIVE C: SAFE AND SECURE WORK ENVIRONMENT

The work environment will be physically safe and well-equipped, as measured by the following:

i. all education employees will have current First Aid/CPR cards;

ii. all education worksites, programs and events will have a security plan in place;

iii. 90% of education employees will report that they have the tools and resources to be effective, productive and safe in their jobs.

Strategy 1 – First Aid

All education employees are required to maintain certification in basic first aid/CPR. Employees are encouraged to obtain and maintain certification in additional first aid training as appropriate for their job duties. All vehicles will be equipped with first aid kits so that education employees have a first aid kit available at all presentations and events.

Strategy 2 – Employee and Participant Safety and Security

A safety and security plan will be developed and implemented for each education program worksite, program, and event. Other agencies or groups may be responsible for some sites and events, for example events held at the Sullivan Arena, the Alaska State Fair, and public schools. In these situations, if the agency or hosting group has a safety plan in place, this should be distributed to Sport Fish education employees participating in the event.

Strategy 3 – Other Training

Employees will be given the opportunity and encouraged to obtain training in other areas as needed that will contribute to a safe and secure work environment, such as bear safety and advanced first aid.

ACTION PLAN

- Continue *Salmon in the Classroom* program at its 2005 level.
- Implement assessment for *Salmon in the Classroom* program. This program has been the primary focus of the Region's aquatic education program for many years, but an assessment of the program's outcomes has not been conducted.
- Revise the Sport Fish aquatic education website to accurately reflect current programs.
- Obtain demographic information on participants of the Region's education programs and fisheries.
- Pilot at least two adult education programs. The Region's current education programs and resources are focused on children, and have been for many years. Some resources need to be expended on determining the types of adult programs that would be well-received and in piloting them.
- Expand learn-to-fish opportunities, utilizing the Becoming an Outdoors Woman program and kids fishing days. Research long-term mentorship programs and explore ways to incorporate them into existing programs. The Region's education program is very strong in teaching basic salmon biology to children, but opportunities sponsored by the Division of Sport Fish for children and adults to learn to fish and to adopt sport fishing as a pastime have been limited.

- Continue development of the sport fishing and aquatic education program in the Bristol Bay Management Area by requesting assignment of a Dillingham Sport Fish employee to be a point-of-contact for educational programs, and begin researching and piloting educational programs in the area.
- Write a sport fishing and aquatic education operational plan for the following management areas: Anchorage, Northern Cook Inlet, Kodiak, Upper Kenai Peninsula/Lower Cook Inlet, Bristol Bay, and Prince William Sound.
- Formulate and implement professional development plans for each education employee.
- Research options for obtaining training in education theory and assessment for employees. Begin rotating employees through the training. Employees in the education program have very strong backgrounds in the biological sciences, but the employee pool is lacking in basic education theory and assessment. All employees need to be well trained in these areas, because they will be implementing assessments, modifying existing programs based on results, and developing new ones.
- Begin development of a program identity, including researching feasibility of standardized employee dress for events (such as vest and shirt with ADF&G logo), and a logotype. The need for standardized employee dress in schools and at events, and the development of standardized print and electronic formats including a logotype is a pressing need for the Region's information and education programs.
- Host a Department-wide Information and Education summit. Although a statewide aquatic education advisory team has been formed, with significant improvement in communication and coordination of Sport Fish education programs, there is limited communication and coordination among other ADF&G information and education programs. A summit would provide a venue to overview all information and education programs in the Department, and would facilitate sharing of information and education across divisions and programs.
- Begin development of a strategic plan for the Region's information program.

ACKNOWLEDGMENTS

Thanks to Jim Schwarber for facilitating the original staff meeting that started the process of developing this plan. Mark Burch provided continuing assistance, consultation and reviews during plan development. Bill Romberg gave helpful suggestions concerning employee surveys. Robin Dublin, Nancy Sisinyak, Erik Anderson, Barry Stratton, and Lisa Olson reviewed early versions of the plan, providing very helpful suggestions at that stage. The following also reviewed the plan, and the time they took to provide comments and suggestions is very much appreciated: Craig Baer, Patti Berkhahn, Dan Bosch, Jason Dye, Stacie Hall, Jon Lyman, George Pappas, Dave Rutz, Suzanne Schmidt, Len Schwarz, Tracy Smith, Terry Thompson, and Donn Tracy. Finally, thanks to Margaret Leonard for formatting and finalizing the document.

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APPENDIX A. OUTCOMES CONCERNING AWARENESS AND KNOWLEDGE FOR CHILDREN

PREFACE TO APPENDIX A

Appendices A1-A5 include the outcomes (also termed "learning objectives") for Goal 1, Objective A of Goal 3, and Objective B of Goal 4.

Outcomes detailed in Appendix A are for the entire region. All management areas, schools, classes and grades may not address every outcome, and all outcomes will not necessarily be assessed. In addition, current programs may not be addressing some outcomes at this time because outcomes reflect the direction of the region for the next several years and not necessarily only what is being addressed at the time this plan was published.

Precise wording to be used for assessments, as well as methods and instruments for administering them, will be determined through consultation with assessment professionals to ensure age-appropriateness and validity of results.

Appendix A1.-Outcomes concerning knowledge of salmon biology and basic awareness of local salmon populations for children in upper grade school.

Students:

1. Know the following external anatomical parts: fins, gills, lateral line, scales, and slime; and the following internal anatomical parts: stomach, liver, heart, swim bladder, kidney, eggs, milt, gills; know their function; and know the corresponding anatomical part in humans (as appropriate).
2. Know at least four survival requirements for juvenile salmon (correct temperature, oxygen, enough flow, access, substrate, cover, clarity, food).
3. Know the six basic life stages of salmon (egg, alevins, fry, smolt, adult, spawner)
4. Can identify at least one local stream with salmon, and life stages found there
5. Know the five species of Pacific salmon in Alaska (Chinook, coho, chum, sockeye, pink).
6. Would like to learn more about salmon.

Appendix A2.-Outcomes concerning knowledge of aquatic habitat and watersheds, and basic awareness of local aquatic habitats and watersheds.

Upper grade school students can:

1. List the five components of the hydrologic cycle (precipitation, evaporation, condensation, transpiration, infiltration).
2. Define a watershed as being an area of land that stores water.
3. Describe how a watershed starts at the mountains and runs to the ocean.
4. Name the watershed they live in.
5. Name three of the five organisms that they share the watershed with (animals, fish, birds, aquatic invertebrates, plants).
6. Name one way humans influence watersheds (litter, cleaning up a stream, wasting water, conserving water, following rules, taking care of the stream banks).
7. Name three of the eight things that salmon need in a watershed to survive (correct temperature, oxygen, enough flow, access, substrate, cover, clarity, food).

Middle and high school students can:

8. List the five components of the hydrologic cycle and what they do.
9. Define watershed as being an area of land that stores water.
10. Name the three sections (upper, middle, lower) of the watershed and describe how each section differs from the others.
11. Name the watershed they live in and list three things that occur in their community that affect the watershed either positively or negatively (stream restoration, water conservation, litter clean up, following rules and regulations, development, pollution, urban sprawl, water usage).
12. Name the five groups of organisms that they share a watershed with (animals, fish, birds, aquatic insects, plants).
13. Name five of the eight things that salmon need in a watershed to survive and describe them.

Appendix A3.-Outcomes concerning understanding and interest in stewardship of aquatic resources.

Upper grade school students:

1. Appreciate the opportunity to raise salmon in their classroom.
2. Like to see or catch salmon in rivers or the ocean, or like knowing that salmon are in their local creek or the ocean.
3. Understand that by taking only some fish and leaving some to reproduce, there will be enough fish for the future.
4. Know some of the things that people might do that will affect whether or not there will be enough fish for the future (overfishing, urban sprawl, loss of riparian buffers, water quality, instream flow, channelization, overfishing food supply).

Middle and high school students:

5. Can identify actions they have done or would like to do that will lead to healthy watersheds.

Appendix A4.-Outcomes concerning level of understanding and knowledge of ADF&G.

Upper grade school students:

1. Know that a fishery biologist studies fish and what fish need.
2. Enjoyed the opportunity to have an ADF&G biologist visit their classroom.
3. Would like to study fish and what fish need when they grow up.
4. Understand that ADF&G's job is to help people leave enough fish for the future by having rules for people to follow, and that everyone gets to help make the rules.

Urban upper grade school students:

5. Know that stocked fish come from hatcheries.
6. Understand that fish are stocked to give more people a chance to fish, while still leaving enough for the future.

Rural upper grade school students:

7. Think that ADF&G biologists care about their fish and subsistence.

Appendix A5.-Outcomes concerning sport fishing and responsible sport fishing practices.

Awareness and knowledge of the value of sport fishing and sustaining Alaska's aquatic resources

Students:

1. Know that some people think that sport fishing is a fun, outdoors activity.
2. Know that sport fishing can provide food and jobs.
3. Know that the way people take care of fish now will affect how much sport fishing people can do in the future.
4. Respect that some people enjoy sport fishing, and respect that some people get food and jobs through sport fishing.

Attitudes and skills to sustain and use Alaska's sport fisheries and aquatic resources

Students:

5. Want fish and aquatic resources to be available to them and/or others in the future.
6. Appreciated the opportunity to handle and touch a real fish.
7. Appreciated the opportunity to participate in a casting activity.
8. Want to go fishing.
9. Know that there are sport fishing regulations and where to find them.
10. Understand basic ethical angling practices.
11. Know what ice fishing is.
12. Know basic regulations for ice fishing.
13. Know that a person 16 years and older needs to purchase fishing license.
14. Know how thick the ice needs to be to safely ice fish.

Engaging in activities that reflect commitment to sustaining Alaska's sport fisheries and aquatic resources

15. High school students want to assist elementary students in a stream study.
16. 6th grade students and older want to help and are qualified to help at ADF&G sport fishing and aquatic education events.
17. Students are interested in participating in a community service event such as a habitat restoration project, marking storm drains or radio announcements.

APPENDIX B. OUTCOMES CONCERNING AWARENESS AND KNOWLEDGE FOR ADULTS

PREFACE TO APPENDIX B

Appendices B1-B5 include the outcomes (also termed “learning objectives”) for Objective B of Goal 2, Objective B of Goal 3, and Objective A of Goal 4.

Outcomes detailed in Appendix B are for the entire region. All management areas, programs, and events may not address every outcome, and all outcomes will not necessarily be assessed. In addition, current programs may not be addressing some outcomes at this time because outcomes reflect the direction of the region for the next several years and not necessarily only what is being addressed at the time this plan was published.

Precise wording to be used for assessments, as well as methods and instruments for administering them, will be determined through consultation with assessment professionals to ensure validity of results.

Appendix B1.-Outcomes for adults concerning knowledge of salmon biology, habitat principles, and basic awareness of local salmon populations and habitats.

Adults:

1. Can identify the following external anatomical parts: fins, gills, lateral line, scales, and slime; and the following internal anatomical parts: stomach, liver, heart, swim bladder, kidney, eggs, milt, gills; identify their function; and identify the corresponding anatomical part in humans.
2. Can identify coho, Chinook, and sockeye salmon, and rainbow trout.
3. Know the six basic life stages of salmon (egg, alevins, fry, smolt, adult, spawner).
4. Know at least four survival requirements for juvenile salmon (correct temperature, oxygen, enough flow, access, substrate, cover, clarity, food).
5. Can identify at least one local stream with salmon, and life stages found there.
6. Understand the concept of sustainable yield in the context of natural resources.
7. Know at least four factors that affect sustainability of salmon populations.
8. Would like to learn more about salmon.

Appendix B2.-Outcomes for adults concerning knowledge of habitat principles and basic awareness of local aquatic habitats.

Adults:

1. Define a watershed as being an area of land that stores water.
2. Name the watershed they live in and list three things that occur in their community that affect the watershed either positively or negatively (stream restoration, water conservation, litter clean up, following rules and regulations, development, pollution, urban sprawl, water usage).
3. Name the three sections (upper, middle, lower) of the watershed and describe how each section differs from the others.
4. Name five of the eight things that salmon need in a watershed to survive (correct temperature, oxygen, enough flow, access, substrate, cover, clarity, food).
5. Understand watershed management, such as the requirement for habitat permits for some activities.

Appendix B3.-Outcomes for adults concerning understanding and interest in stewardship of aquatic resources.

Adults:

1. Understand how and why the state produces fish for recreational purposes.
2. Understand appropriate and legal ways for accessing water bodies.
3. Understand the potential problems of invasive species.
4. Know at least two things they can do to prevent problems of invasive species.
5. Know at least three things they can do to contribute to healthy watersheds or sustainable fish populations.
6. Intend to practice actions that will lead to healthy watersheds or sustainable fish populations.

Appendix B4.-Outcomes for adults concerning their level of understanding and knowledge of ADF&G.

Adults:

1. Know that ADF&G accomplishes its mission through Sport Fish core activities of stock assessment, management, hatchery production, access development and maintenance, habitat assessment, information and education, enforcement, and planning and surveys.
2. Know that ADF&G manages fisheries, that the Board of Fisheries allocates among users, and that the Department of Public Safety, Bureau of Wildlife Enforcement enforces statutes and regulations.
3. Know the definition of sustained yield management (use of fishery resources in a way that will allow them to be used perpetually without decline and elimination of the resource), and that sustained yield management is mandated by the Alaska Constitution.
4. Know the five guiding principles of Alaska's Sustainable Salmon Fisheries Policy (protect wild populations and their habitats; allow enough escapement to sustain production and maintain the ecosystem; regulate human activities that affect salmon; involve the public; where there is uncertainty, manage conservatively).
5. Understand that execution of many popular fisheries is guided by management plans, adopted by the Board of Fisheries and implemented by ADF&G.
6. Understand that sustained yield management is accomplished through inseason management, by local fishery biologists, based on abundance.
7. Understand that fisheries management by ADF&G is based on sound scientific, peer-reviewed research.
8. Know that most salmon stocks in Alaska are healthy because of Alaska's sustained yield mandate.

Appendix B5.-Outcomes for adults concerning sport fishing and responsible sport fishing practices.

Awareness and knowledge of the value of sport fishing and sustaining Alaska's aquatic resources:

1. Respect that sport fishing is a legitimate pastime for many people.
2. Know that sport fishing provides food and economic benefits for Alaskans.
3. Know that how sport fish and aquatic resources are used and managed now will affect their availability in the future.

Attitudes and skills to sustain and use Alaska's sport fisheries and aquatic resources:

4. Know where to find information about when, where, and how to sport fish.
5. Know that there are sport fishing regulations and where to find them.
6. Understand that sport fishing regulations help to ensure fish and aquatic resources are available in the future.
7. Plan to follow fishing regulations if/when they fish.
8. Can correctly identify fish species likely to be caught in the locations they plan to fish.
9. Can demonstrate the correct technique for releasing a sport-caught fish.
10. Understand and plan to follow basic ethical angling practices.

Engaging in activities that reflect commitment to sustaining Alaska's sport fisheries and aquatic resources:

11. Have taken part in the Board of Fisheries process.
12. Have taken part in a restoration, education, or other stewardship activity.

APPENDIX C. LOGIC MODELS FOR SELECTED COMPONENTS AND AUDIENCES OF THE REGION II AQUATIC EDUCATION PROGRAM

Appendix C1.-Logic model for student audiences, *Salmon in the Classroom* component, with outcomes identified by employees and participants.

Activities: Implement and support "Salmonids in the Classroom" program.

Outputs: Schools, classes and students participating in the program.

Shorter-term Outcomes	Longer-term Outcomes
Audience - All Students Grades K-6	
BIOLOGY - BASICS & AWARENESS	
Students know basic anatomy of salmon.	Students understand factors affecting sustainability of salmon.
Students know survival requirements for salmon stages in their tanks.	Students understand salmon development and survival requirements for freshwater environments.
Students know the lifecycle of salmonids and fish in general.	Students have a desire to learn more about fish.
Students know that salmon are in their local streams, including timing and life stages.	
Students know how to ID fish	
HABITAT - BASICS & AWARENESS	
Students know that development and growth of their salmon depends on food and water: amount, temperature and quality.	Students understand factors that affect survival and development of wild salmon.
Students know the basic elements of salmon habitats in freshwater.	Students understand that healthy and sustainable populations of salmon and other aquatic and terrestrial organisms depend on healthy watersheds throughout their lifecycle.
Students understand how humans can affect freshwater habitats and basic needs of rearing salmon.	
Students understand how anatomy of fish works/relates to the environment/habitat	
STEWARDSHIP	
Students value the salmon in their tanks.	Students value salmon in the wild.
Students understand the importance of sustaining wild, natural fish populations.	Students don't move fish between water bodies, and don't release fish into lakes, streams, or the ocean.
Students know that fish may not be moved from one water body to another.	Students understand what they can do to contribute to healthy salmon populations in Alaska.
Students understand responsible use of aquatic resources.	Students adopt a stewardship attitude concerning local streams, lakes and marine resources.
	Students intend to practice actions that lead to healthy watersheds and sustainable fish populations.

-continued-

Appendix C1.-Page 2 of 3.

Activities: Implement and support "Salmonids in the Classroom" program.
Outputs: Schools, classes and students participating in the program.

Shorter-term Outcomes	Longer-term Outcomes
ADF&G	
Students know what ADF&G Sport Fish Division is and does (core activities).	Students understand the role of ADF&G in sustaining fish and wildlife resources in Alaska.
Students in the program know what fishery biologists do.	Students are interested in a career in fisheries or natural resources.
Students meet an ADF&G biologist.	Students understand management principles of Sport Fish Division for aquatic resources.
Students feel they have a connection to a professional biologist.	
Students think ADF&G is "cool."	
Students are informed of job/career opportunities available with Sport Fish.	
Students understand F&G duties & responsibilities in the field.	
FISHING	
Students enjoy being in the outdoors.	Students have a desire to go fishing.
Students see and touch a real fish.	Students ask their parents to take them fishing.
Students hold a fishing rod and practice casting.	Students enjoy handling fish.
Students have a positive fishing experience.	Students want to go fishing again.
Students know proper catch & release techniques.	Students enjoy recreating in the outdoors and want to conserve fish & wildlife for their enjoyment in the future.
Students know how to identify rainbow trout and Chinook salmon.	Students understand the importance of fishing regulations for managing sustainable fisheries.
Students know that there are regulations for sport fishing.	Students intend to follow fishing regulations when they fish.
Students know where to find the regulations for sport fishing in Southcentral Alaska.	Released fish survive.
Students understand basic ethical angling (don't waste, careful release, respect others, obey the regulations).	Students intend to practice basic ethical angling when they fish.

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Appendix C1.-Page 3 of 3.

Activities: Implement and support "Salmonids in the Classroom" program.

Outputs: Schools, classes and students participating in the program.

Shorter-term Outcomes	Longer-term Outcomes
Audience - Urban Students	
STEWARDSHIP	
Students understand criteria for stocking. Students understand problems of invasive species.	
ADF&G	
Students understand where stocked fish come from, why fish are stocked, and Sport Fish Division's role in stocking fish.	Students support the stocking program.
FISHING	
Students know what ice fishing is, and that there are other ways of sport fishing. Students know the basic regulations for ice fishing.	
Audience - Rural Students	
ADF&G	
	Students believe ADF&G biologists care about their local fisheries resources and their subsistence lifestyle.
FISHING	
Students know the basic regulations for fishing on local waters.	

Appendix C2.-Logic model for student audiences, *Watersheds* component.

Activities: Implement and support "Watersheds" program.
Outputs: Schools, classes and students participating in the program.

Shorter-term Outcomes	Longer-term Outcomes
Audience - All Students Grades 5-12	
HABITAT - BASICS & AWARENESS	
Students know what a watershed is, and components of watersheds.	Students understand that healthy and sustainable populations of salmon and other aquatic and terrestrial organisms depend on healthy watersheds throughout their lifecycle.
Students understand that their community is part of a watershed.	Students understand how a healthy habitat or disturbed (unhealthy) habitat affects sustainability of salmon runs.
Students understand how anatomy of fish works/relates to the environment/habitat.	Students understand how everyday actions can impact local watersheds and their components – positively or negatively.
Students know characteristics of healthy streams: chemistry, flow, macroinvertebrates.	Students have a desire to learn more about watersheds, habitat, and non-game species.
Students understand the importance of a healthy watershed and effects of a polluted watershed.	
Students know how to measure and collect data on health of their local streams (chemistry, flow, invertebrates).	
Students know how to ID macroinvertebrates.	
STEWARDSHIP	
Students understand problems of invasive species.	Students don't move fish between water bodies, and don't release fish into lakes, streams, or the ocean.
Students understand importance of sustaining wild, natural fish populations.	Students understand what they can do to contribute to healthy salmon populations in Alaska.
Students know specific actions they can take to promote healthy watersheds.	Students adopt a stewardship attitude concerning local streams, lakes and marine resources.
Students understand responsible use of aquatic resources.	Students intend to practice actions that lead to healthy watersheds and sustainable fish populations.

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Appendix C2.-Page 2 of 2.

Activities: Implement and support "Watersheds" program.

Outputs: Schools, classes and students participating in the program.

Shorter-term Outcomes	Longer-term Outcomes
	ADF&G
Students know what ADF&G Sport Fish Division is and does (core activities).	Students understand the role of ADF&G in sustaining fish and wildlife resources in Alaska.
Students in the program know what fishery biologists do.	Students are interested in a career in fisheries or natural resources.
Students meet an ADF&G biologist.	Students understand management principles of Sport Fish Division for aquatic resources.
Students feel they have a connection to a professional biologist.	
Students think ADF&G is "cool."	
Students are informed of job/career opportunities available with Sport Fish.	
Students understand F&G duties & responsibilities in the field.	
	FISHING
Students enjoy being in the outdoors.	Students enjoy recreating in the outdoors and want to conserve fish & wildlife for their enjoyment in the future.
Students know how to identify rainbow trout and Chinook salmon.	
	Audience - Rural Students Grades 5-12
	STEWARDSHIP
	Local watersheds and habitat along salmon streams are not damaged.
	ADF&G
	Students believe ADF&G biologists care about their local fisheries resources and their subsistence lifestyle.

Appendix C3.-Logic model for parent audiences, *Salmon in the Classroom* and *Watersheds* components.

Activities: Implement and support "Salmonids in the Classroom" program; Implement and support "Watersheds" program.
Outputs: Schools, classes, students and parents/adults participating in the program.

Shorter-term Outcomes	Longer-term Outcomes
Audience - All Parents & Adults	
ADF&G	
See ADF&G contributing to their children's education.	Support ADF&G.
Know that Sport Fish is involved in their children's education.	Understand the role of ADF&G in sustaining fish and wildlife resources.
Know what Sport Fish Division does (core activities).	Aquatic education programs continue.
Feel a personal connection to ADF&G.	
STEWARDSHIP	
Understand importance of sustaining wild, natural fish populations.	Don't move fish between water bodies, and don't release fish into lakes, streams, or the ocean.
Understand problems of invasive species.	Wild fish stocks are sustained.
Know that fish may not be moved from one water body to another.	
FISHING	
Know how to identify rainbow trout and Chinook salmon.	Buy a fishing license.
Are aware of local fishing opportunities and how to fish.	Take their kids fishing.
Know that a license is required.	Comply with regulations.
Know where to find regulations for sport fishing in Southcentral Alaska.	Intend to practice basic ethical angling when they fish.
Understand basic ethical angling (don't waste, careful release, respect others, obey the regulations).	
Audience - Urban Parents & Adults:	
ADF&G	
Understand where stocked fish come from, why fish are stocked, and Sport Fish Division's role in stocking fish.	Support the stocking program.
	The stocking program continues.
STEWARDSHIP	
Understand problems of invasive species.	
Understand criteria for stocking, and know where to release fish and where NOT to release fish.	
Fishing pressure is diverted from wild stocks to stocked fisheries.	
FISHING	
	Support license fee increase to improve hatcheries.
Audience - Rural Parents & Adults:	
ADF&G	
Understand how to be involved in fisheries management.	Are positively involved in fisheries management.
	Believe ADF&G biologists care about their local fisheries resources and their subsistence lifestyle.

Appendix C4.-Logic model for teacher audiences, *Salmon in the Classroom* and *Watersheds* components.

Activities: Implement and support "Salmonids in the Classroom" & "Watersheds" programs.

Outputs: Schools, classes, students and parents/adults participating in the program.

Shorter-term Outcomes	Longer-term Outcomes
Audience - Teachers in the Programs	
Teachers meet their educational objectives for science.	Teachers stay in the ADF&G aquatic education programs.
Teachers feel they have a connection to a professional biologist.	Individual teachers in partner schools understand and support the programs and any necessary changes.
Teachers don't get bored with the program and materials, and maintain excitement about their jobs.	Aquatic education programs continue.
ASD assists with full evaluation, including test scoring and summaries, consulting for other components, administering additional surveys and tests needed for immediate planning.	
Existing programs continue in 2005.	

Appendix C5.-Logic model for visitor audiences.

Activities: Plan, implement, and/or participate in large-scale events in Southcentral.

Outputs: Kids/Family Fishing Days; Oceans Festival; Alaska State Fair; Open Houses; Sportsmens Shows; Fishing Derbies; Governor's Picnic; Kenai River Festival.

Shorter-term Outcomes	Longer-term Outcomes
Audience - Visitors to large-scale events; includes Alaskans and non-Alaskans such as tourists	
BIOLOGY - BASICS & AWARENESS	
Visitors understand the life cycle of Pacific salmon and basic fish anatomy.	Visitors want to learn more about fish and fisheries.
Visitors know that there are aquatic insects in the water.	
Visitors know something new about fish or fisheries.	
Visitors know that there is a great diversity of fish.	
Visitors enjoyed the activities provided and found them interesting.	
Visitors are informed of invasive species.	
ADF&G	
Visitors know that ADF&G does educational events.	Visitors know that ADF&G Sport Fish Division is involved in education in schools.
Visitors know what the aquatic education program is and does.	Visitors understand and support the activities of Sport Fish Division (core activities) and the management tools for maintaining aquatic resources.
Visitors know the core activities of Sport Fish Division.	Aquatic education programs continue.
Visitors look forward to return of aquatic ed. Staff.	Visitors understand the role of ADF&G in sustaining fish and wildlife resources.
Visitors feel a personal connection to ADF&G.	Visitors support the stocking program.
Visitors understand where stocked fish come from, why fish are stocked, and Sport Fish Division's role in stocking fish.	The stocking program continues.
Visitors understand the specific message or issue (will change depending on location and current issues).	Visitors support the specific message or issue.
	Visitors cooperate with F&G field projects.
SPORT FISHING	
Visitors know how to tie a fly.	Visitors can interpret sport fish regulations.
Visitors try out sport fishing equipment.	Increased participation in sport fishing.
Visitors are aware of local sport fishing opportunities.	
Visitors are aware of sport fishing regulations.	

Appendix C6.-Logic model for employees.

Activities: Training, meetings, communication.

Outputs: Number of training sessions attended, meetings held.

Shorter-term Outcomes	Longer-term Outcomes
Audience - Employees	
ADF&G	
Programs are efficient: sharing of expertise, reviews, resources.	Staff understand ADF&G total mission – not just focused on their research projects for example.
Employees understand where they fit in the "big picture."	Lawsuits against ADF&G are avoided.
Employees feel and are confident to handle emergencies.	Sport Fish sponsored educational events are safe.
Employees feel that ADF&G cares about their personal safety.	Employees are retained.
Employees feel that ADF&G cares about their professional goals.	Sport Fish Division has a qualified base of applicants, who understand the value of aquatic resources, for job/career openings.
Employees feel loyalty to ADF&G.	Employees and programs are effective.
Aquatic Education	
Employees feel and are competent to evaluate and develop aquatic education materials and programs.	The programs are continued in the partner schools and agencies.
Employees stay up-to-date on aquatic education topics.	Participants remain in programs.
Good communication between Sport Fish entities and programs doing aquatic education.	Partners support the Department and Division.
Implementing programs is faciliated.	Funding base for aquatic education continues.
Employees network and share information.	Participants at events believe ADF&G cares about individuals.
Employees know about programs and projects around the region, and in all core activities.	Attendees and participants think ADF&G staff are well-informed, competent and unbiased.
Employees can answer questions about all aspects of Sport Fish.	Programs and materials used in aquatic education are the best available and current.
Materials and programs are frequently updated and reflect current scientific information and best practices.	
Messages among SF education programs are consistent.	

APPENDIX D. EMPLOYEE SURVEY EXAMPLE

Appendix D1.-Example of a survey to be used to measure employee opinions about the work environment.

To determine if Objective A is being met, an annual survey of I&E employees will be developed and implemented. Questions and procedures used may be similar to the Department's employee survey. To determine if employees feel empowered and motivated, employees could be asked to rate statements on a disagree/agree scale. Possible statements could include:

- I am inspired by what we are trying to achieve as an organization.
- I am inspired by the goals of our organization.
- I am enthusiastic about working toward the organization's objectives.
- I can influence the way work is done in my work unit.
- I can influence decisions taken in my work unit.
- I have the authority to make decisions at work.
- I have the capabilities required to do my job well.
- I have the skills and abilities to do my job well.
- I have the competence to work effectively.
- Overall, my current work environment empowers me to accomplish my work in an effective manner.
- Overall, I consider my workplace to be an empowering environment.

Objective A also addresses if employees feel their work environment is open, cooperative and efficient. Statements to determine this might include the following:

- I can freely express my opinions and ideas to others in my workgroup without being concerned that I'll be disparaged.
- If I have an idea for the I&E program, the other employees in my workgroup encourage me to try it.
- Other employees in my workgroup are quick to help me out when I ask.
- I know the areas of expertise of the other employees in my workgroup.
- My supervisor and other people in leadership positions encourage me to express my opinions and ideas freely.
- My supervisor and other people in leadership positions encourage me to try new ideas.
- My supervisor, other people in leadership positions, or other employees in my workgroup have used at least one of my ideas in the past year.
- If I need help with a project or activity, and other employees in my workgroup aren't available, my supervisor can usually get me the help I need quickly.
- I can usually get the equipment, approvals or help I need quickly to complete a project.

Objective B addresses professional development and an effective work environment and Objective C addresses a safe and secure work environment. Some of the measures for these objectives will also require a survey of employees, specifically, to determine if employees believe they have the tools, resources, and skills to be effective and productive in their jobs. These would be combined in the survey addressing Objective A, and some of the statements may be borrowed from the Departmentwide employee survey. Statements may include:

- I have sufficient tools and equipment to be effective and productive in my job.
- I have sufficient training, equipment and resources to perform my job safely.
- I have sufficient resources to be effective and productive in my job.
- I have the knowledge and skills to be effective and productive in my job.

APPENDIX E. DESCRIPTION OF *SALMON IN THE CLASSROOM* PROGRAM

Appendix E1.-Description of *Salmon in the Classroom* Program.

The Alaska Department of Fish and Game, Division of Sport Fish, Region II, began an education program in 1996 dubbed the STREAM (Salmon Trout Restoration Education and Aquatic Management) program, the goal of which was "to increase the public's awareness of Alaska's healthy wild salmon stocks through education and the offering of hands-on opportunities" (Kraus 1999) in Southcentral Alaska. The program, modeled after similar ones in Washington, British Columbia, and Oregon, supports aquariums placed in public school classrooms (mostly elementary) in which students raise salmon, from eggs to fry. The program includes the following six components, all led by Sport Fish employees: (1) classroom aquariums for raising salmon, from egg to fry; (2) field trips to watch an egg take at a local stream and receive eggs for the aquarium; (3) salmon dissections in the classroom; (4) ice fishing field trips to a local stocked lake; (5) a pilot program focused on aquatic invertebrates and watersheds; and (6) "salmon celebration" field trips to release fry raised in the classroom or to watch release of hatchery fish into a local stream.

In 2004, there were 110 schools in Region II participating in the program, including communities in the areas of Anchorage, Matanuska-Susitna, Kenai Peninsula, Kodiak, and Prince William Sound.