

Fishery Management Report No. 05-56

**Summary of Public Education and Outreach Activities
Conducted by the Salmon Trout Restoration
Education and Aquatic Management (STREAM)
Program, July 1, 2002-June 30, 2003**

by

Frederic R. Kraus

October 2005

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)		General		Measures (fisheries)	
centimeter	cm	Alaska Administrative Code	AAC	fork length	FL
deciliter	dL			mid-eye-to-fork	MEF
gram	g	all commonly accepted abbreviations	e.g., Mr., Mrs., AM, PM, etc.	mid-eye-to-tail-fork	METF
hectare	ha			standard length	SL
kilogram	kg			total length	TL
kilometer	km	all commonly accepted			
liter	L	professional titles	e.g., Dr., Ph.D., R.N., etc.		
meter	m			Mathematics, statistics	
milliliter	mL	at	@	<i>all standard mathematical signs, symbols and abbreviations</i>	
millimeter	mm	compass directions:		alternate hypothesis	H _A
		east	E	base of natural logarithm	<i>e</i>
		north	N	catch per unit effort	CPUE
		south	S	coefficient of variation	CV
		west	W	common test statistics	(F, t, χ^2 , etc.)
		copyright	©	confidence interval	CI
		corporate suffixes:		confidence interval (multiple)	R
		Company	Co.	correlation coefficient (simple)	r
		Corporation	Corp.	covariance	cov
		Incorporated	Inc.	degree (angular)	°
		Limited	Ltd.	degrees of freedom	df
		District of Columbia	D.C.	expected value	<i>E</i>
		et alii (and others)	et al.	greater than	>
		et cetera (and so forth)	etc.	greater than or equal to	≥
		exempli gratia (for example)	e.g.	harvest per unit effort	HPUE
		Federal Information Code	FIC	less than	<
		id est (that is)	i.e.	less than or equal to	≤
		latitude or longitude	lat. or long.	logarithm (natural)	ln
		monetary symbols (U.S.)	\$, ¢	logarithm (base 10)	log
		months (tables and figures): first three letters	Jan, ..., Dec	logarithm (specify base)	log ₂ , etc.
		registered trademark	®	minute (angular)	'
		trademark	™	not significant	NS
		United States (adjective)	U.S.	null hypothesis	H ₀
		United States of America (noun)	USA	percent	%
		U.S.C.	United States Code	probability	P
		U.S. state	use two-letter abbreviations (e.g., AK, WA)	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

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

FISHERY MANAGEMENT REPORT NO. 05-56

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CONDUCTED BY THE SALMON TROUT RESTORATION
EDUCATION AND AQUATIC MANAGEMENT (STREAM) PROGRAM,
JULY 1, 2002-JUNE 30, 2003**

by

Frederic R. Kraus
Division of Sport Fish, Anchorage

Alaska Department of Fish and Game
Division of Sport Fish, Research and Technical Services
333 Raspberry Road, Anchorage, Alaska 99518-1599

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*Frederic R. Kraus,
Alaska Department of Fish and Game, Division of Sport Fish
333 Raspberry Road, Anchorage, AK 99518-1599, USA*

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TABLE OF CONTENTS

	Page
LIST OF TABLES	ii
ABSTRACT	1
INTRODUCTION.....	1
Background Information	1
FY 2003 ACTIVITIES (JULY 1, 2002–JUNE 30, 2003).....	2
Education.....	2
Classroom Salmon Egg Incubation.....	2
Classroom Visits and Presentations	5
Aquatic Education Classroom Trailer.....	7
Field Educational Experiences.....	12
Teacher Workshops/In-Services.....	13
Adopt-A-Stream Program.....	13
Educational Material Development	14
Outreach	15
Stream Restoration/Habitat Activities	15
Shows and Special Events	17
Media Coverage.....	22
Requests for Information or Materials.....	22
Program Contributions.....	22
Stocked Lake Maps Series.....	24
Future Goals	25
Education and Outreach.....	25
Acknowledgements	25
REFERENCES	26

LIST OF TABLES

Table		Page
1.	Schools participating in salmon egg incubation projects, by area, 2003.....	4
2.	School egg-take and release information, 2003.	6
3.	Classroom visits and presentations conducted by the ADF&G STREAM Program, 2003.....	8
4.	Aquatic Education Trailer construction milestones and activities, 2003.	12
5.	Field educational experiences conducted by the ADF&G STREAM Program, 2003.	14
6.	Teacher workshops and in-services conducted by the ADF&G STREAM Program, 2003.....	14
7.	Adopt-A-Stream programs sponsored by the ADF&G STREAM Program, 2003.	15
8.	Educational materials developed by the ADF&G STREAM Program, 2003.	16
9.	Stream restoration/habitat activities (outreach) conducted by the ADF&G STREAM Program, 2003.....	17
10.	Shows and special events attended or sponsored by the ADF&G STREAM Program, 2003.	18
11.	Media coverage of the ADF&G STREAM Program, 2003.	23
12.	Requests for information, materials and equipment from the ADF&G STREAM Program, 2003.....	25

ABSTRACT

Described are the activities conducted under the Salmon Trout Restoration Education and Aquatic Management (STREAM) Program, July 1, 2002-June 30, 2003. Activities are summarized in two categories; education and outreach. Education activities include: classroom salmon egg incubation, classroom visits and presentations, field educational experiences, teacher workshops/in-services, adopt-a-stream program and educational materials. The outreach component includes: stream restoration/ habitat activities; shows and special events; fulfilling requests for information, materials and equipment; and continuing and enhancing media coverage and program contributions. The new aquatic education mobile classroom trailer and its activities in FY 2003 are described. Goals for the continuing program are outlined.

Key words: Salmon Trout Restoration and Aquatic Management (STREAM) education, outreach, classroom salmon egg incubation, mobile classroom trailer, teacher workshops, Adopt-a-Stream, media coverage.

INTRODUCTION

BACKGROUND INFORMATION

Aquatic education in Southcentral Alaska began in 1989 with an experimental classroom salmon egg incubation program supported by the former Fisheries Rehabilitation Enhancement Division (FRED) of the Alaska Department of Fish and Game (ADF&G). This program was based out of the Big Lake Hatchery and initially concentrated on Matanuska-Susitna Valley schools, but by school year 1990/1991 supported projects in five Matanuska-Susitna Valley and five Anchorage area schools.

During this same time frame, FRED Division had plans to initiate a project to conduct research on stream rehabilitation techniques and structures the division was planning to construct in Anchorage area streams, with emphasis on Campbell Creek. The program was to be funded in part by the Alaska Science and Technology Foundation (ASTF), which was interested in the development of low cost stream restoration techniques that the general public and other agencies could afford and utilize along streams around Alaska. The projects would be small in design and materials would be inexpensive and easy to install.

A union of the fledgling aquatic education program and the new stream restoration effort occurred in July 1991 when the new project biologist realized there was an opportunity to combine these efforts to create an educational outreach program, which was named the Salmon Trout Restoration Education and Aquatic Management (STREAM) Program.

The main goal of the program was, as it remains today, to increase the public's awareness of Alaska's healthy wild salmon stocks through education and the offering of hands-on opportunities. In this way it is hoped that the public will become personally involved and become better stewards of this valuable resource. In 1996, the STREAM Program was transferred to the Division of Sport Fish (DSF). At that time, angler education and outreach became the main goal of the STREAM Program.

The STREAM Program's activities have been modeled after other existing agency aquatic education and outreach programs such as the Oregon Department of Fish and Wildlife's (ODF&W) Salmon Trout Enhancement Program (STEP) and the federal Canada Department of Fisheries and Ocean's (DFO) Salmonid Enhancement Program (SEP) in British Columbia. Components of these programs have been incorporated into STREAM Program activities; however, these programs use activities to concentrate on enhancement of depleted salmon stocks while the ADF&G program focuses on maintaining existing healthy stocks around the state. Salmonid enhancement is not an integral part of the STREAM Program.

The STREAM Program continues to expand and supports incubation projects throughout Southcentral Alaska and Interior Alaska. Projects are located in the Anchorage area, Kenai Peninsula, Matanuska-Susitna Valley, Kodiak and Region III (Fairbanks) road system area. The program also continues to support Cooperative Extension Service (CES) classroom salmon egg incubation projects statewide on a technical basis since this program was established in the early 1990s.

The success and popularity of the STREAM program is due to the high visibility of the program. ADF&G staff are in the schools and field with the students and volunteers that have the desire to learn more about Alaska's salmon resources. This not only allows the department to inform the public, but also enables the public to become more aware of the department's concerns and to understand why and how the resource is managed.

FY 2003 ACTIVITIES (JULY 1, 2002–JUNE 30, 2003)

The STREAM Program accomplishes its goals in many ways, but primarily develops and incorporates hands-on activities to increase the public's awareness of our salmon resources. The program focuses on education and outreach as its primary tools to accomplish its goals; however, with the ever increasing demand for educational activities and materials, the time consuming small scale stream restoration outreach activities have decreased significantly since the early days of the program.

Activities conducted by the STREAM Program are summarized in two categories, education and outreach. Education activities include: classroom salmon egg incubation, classroom visits and presentations, field educational experiences, teacher workshops/in-services, adopt-a-stream program and educational materials. The outreach component includes: stream restoration/ habitat activities; shows and special events; fulfilling requests for information, materials and equipment; and continuing and enhancing media coverage and program contributions. The new aquatic education mobile classroom trailer was completed in FY03 and there will be a section in this report dedicated to trailer activities. Activities for fiscal year 2003 are summarized below.

EDUCATION

Classroom Salmon Egg Incubation

As one of the original aquatic education tools, classroom salmon egg incubation activities have long been the backbone of the educational effort in Southcentral Alaska. Classroom salmon egg incubation came to Alaska using technology developed by the DFO-SEP in British Columbia. Classroom salmon egg incubation projects are used as a part of SEP's "Salmonids in the Classroom" program. Since its origins at the Big Lake Hatchery, these projects now exist in 100 ADF&G STREAM Program-sponsored schools in Southcentral Alaska and statewide in approximately 50 Cooperative Extension Service-sponsored schools. These projects continue to be for educational purposes only and not for enhancement.

Most schools are using 29-gallon aquariums with standard undergravel filter plates, powerheads and aquarium gravel. The tanks are insulated and darkened using 1-inch high density Styrofoam and the recirculated water is refrigerated using specially designed refrigeration units. If schools are on a city-treated water system they must dechlorinate their water before introduction into their tank. These systems incubate up to 250 eggs. Coho salmon *Oncorhynchus kisutch* is the species used to obtain salmon eggs for the school projects because its egg development stages from spawning to fry emergence coincide best with a school year.

This year, classroom incubation equipment was funded cooperatively between the Kenai River Sportfishing Association (KRSA) and the STREAM Program. The STREAM Program received

approximately \$17,000 from KRSA to purchase 34 refrigeration units for schools. STREAM Program staff then had these units built locally and distributed them to participating schools. The STREAM Program supplies the other equipment and accessories required.

Several schools utilize a technique developed by the STREAM Program when standard incubation equipment is not available. This technique uses a small 1-gallon aquarium inside of a refrigerator, which chills the water, to incubate approximately 50 salmon eggs through the fry stage.

The classroom salmon egg incubation program enables students and teachers, as well as parents, to witness and monitor the early development of a salmon from egg to fry, probably the least understood stages of the salmon's life cycle, but a period we as humans have great control over. Classes are responsible for monitoring tank temperature on a daily basis and performing water exchanges once a week. Classroom salmon egg incubation projects focus on increasing student awareness of salmonid life histories, biology, anatomy and habitat requirements of these fish.

Educational materials have been developed and continue to be developed to complement this program. The STREAM Program modified the primary version of *Salmonids in the Classroom* (ADF&G 1995) with permission from DFO. The curriculum package has been well received and the intermediate version of this same series is still in the process of being modified (ADF&G *In prep*). *A Guide to Classroom Salmon Egg Incubation in Alaska* continues to be distributed to teachers. A modified life-cycle poster originally produced by the Washington Department of Fish and Wildlife (WDF&W) and salmon egg vial displays constructed by high school students are also made available to educators.

In 2003, 54 Anchorage area schools conducted classroom salmon egg incubation projects (Table 1); an increase of two from the previous year. There were 17 participating schools in the Matanuska-Susitna Valley area, an increase of three schools from the previous year; 8 schools on the Kenai Peninsula, an increase of one school from the previous year; 8 schools in Kodiak, an increase of one school from the previous year and 13 schools in the Fairbanks area, an increase of one school from the previous year.

In late September and early October, classes from Anchorage and the Matanuska-Susitna Valley came to Campbell Creek and Spring Creek, respectively, to participate in a coho salmon egg take. The children witnessed the beginning of life for a salmon and left with up to 250 fertilized eggs, which they then observed and monitored throughout the winter. Schools on the Kenai Peninsula received their coho salmon eggs from Bear Creek during a cooperative ADF&G, Cook Inlet Aquaculture (CIAA) and Seward Sealife Center egg take held at the CIAA operated Bear Creek Weir. Following the egg takes the Seward Sealife Center hosted reduced entry fee tours for the participants.

Kodiak area projects received eggs from an egg take held at the Buskin River in early November. The Copper River basin school (included with the Fairbanks Sport Fish Region III area schools) continues to receive fertilized coho salmon eggs from an egg take at the privately operated Solomon Gulch Hatchery in Valdez. Fairbanks and adjacent area schools travel to the Delta-Clearwater River in Delta Junction to attend an egg take.

The classroom eggs eventually hatched and turned into fry at which point the classes received salmon food supplied by the Fort Richardson Hatchery and distributed by STREAM Program staff. The majority of the coho fry were released in mid to late May in landlocked lakes: Taku-Campbell Lake in Anchorage, Matanuska Lake in Palmer, several lakes in the Kenai/Soldotna area, Island Lake in Kodiak, Strelna Lake near Kenny Lake and either Bathing Beauty Pond near Fairbanks or the Delta-Clearwater River (anadromous).

Table 1.-Schools participating in salmon egg incubation projects, by area, 2003.

<u>ANCHORAGE</u>		<u>MATANUSKA-SUSITNA</u>
Abbott Loop Elementary	Village Charter	Academy Charter
Alpenglow Elementary	Whaley School	Butte Elementary
Baxter Elementary	Williwaw Elementary	Colony MS
Bayshore Elementary	Willow Crest Elementary	Finger Lake Elementary
Bear Valley Elementary		Glacier View
Chinook Elementary	Total 54	Goose Bay Elementary
Chugach Optional		Larson Elementary
Chugiak HS		Meadow Lakes Elementary
Clark MS		Midnight Sun
College Gate Elementary	<u>KODIAK</u>	New Ideas Home
Creskide Park Elementary	Chiniak School	Pioneer Peak Elementary
Denali Elementary	East Elementary	Sherrod Elementary
Dimond HS	Kodiak HS	Swanson Elementary
Eagle River Elementary	Main Elementary	Talkeetna Elementary
Fairview Elementary	North Star Elementary	Tanaina Elementary
Fire Lake Elementary	Old Harbor School	Teeland Middle
Girdwood Jr. High	Peterson Elementary	Wasilla MS
Gladys-Wood Elementary	St. Mary's School	
Goldenview MS		Total 17
Hanshew MS	Total 8	
Homestead Elementary		
Huffman Elementary		
Inlet View Elementary		<u>FAIRBANKS REGION III</u>
Kasuun Elementary	<u>KENAI PENINSULA</u>	Anderson School
King Career Center	Kalifornsky Beach Elem.	Arctic Light Elementary
Klatt Elementary	Mt. View Elementary	Chinook Charter
Lake Hood Elementary	Nikiski Elementary	Delta Junction Elem.
Lake Otis Elem.	Ninilchik HS	Joy Elementary
Mirror Lake MS	Redoubt Elementary	Kenny Lake Elementary
Mt. View Elementary	Sears Elementary	Nordale Elementary
Muldoon Elementary	Sterling Elementary	North Pole MS
North Star Elem.	Tustumena Elementary	Pearl Creek Elementary
Northern Lights ABC		Tri-Valley School
Nunaka Valley Elementary	Total 8	Weller Elementary
Ocean View Elementary		Whitestone School
O'Malley Elementary		Woodriver Elementary
Orion Elementary		
Polaris Alternative		Total 13
Rabbit Creek Elementary		
Rogers Park Elementary		
Russian Jack Elementary		
SAVE HS		
Scenic Park Elementary		
Service HS		
Susitna Elementary		
Taku Elementary		
Trailside Elementary		
Tudor Elementary		
Turnagain Elementary		
Ursa Minor Elementary		

Egg-take and release summary information for each area can be found in Table 2. Anchorage area events continue to account for the largest amount of participation during egg takes (2,173 students, 90 classes) and releases (1,794 students) due to the large number of schools participating. Egg takes in Anchorage were held over a 5-day period for classes to attend. An egg take was conducted on a sixth day (Saturday) for instructors who could not attend with their classes. The fry releases in Anchorage, Palmer and Kodiak had the only organized fry releases in the region where classes came out on a single day to release their fish. These releases were combined with a “Salmon Celebration” (hands-on activity booths) so that the students could participate in salmon related activities after releasing their fry.

Two days of school egg takes held at Spring Creek in Palmer drew an attendance of 968 students (35 classes), a large increase from the previous year. Students from the Matanuska-Susitna Valley area then released their fry into Matanuska Lake during a combined district-wide classroom fry and catchable rainbow trout (from Anchorage area hatcheries) release. This release was combined with a Salmon Celebration.

The Kenai Peninsula school egg take was conducted at Bear Creek in Seward. This egg take was attended by 205 students (9 classes). Kenai Peninsula classes have three release location options, but most opted to release their fry at Centennial Lake in Kasilof.

Kodiak area schools attended egg takes held at the Buskin River at the outlet of Buskin Lake (322 students, 14 classes) and the resultant fry were released into Island Lake near North Star Elementary School, which hosts the annual fry release and Salmon Celebration for the Kodiak area. This release is district-wide and students from non-participating classes help to release the classroom fry raised by fellow students.

The Fairbanks area schools egg take was again combined with a scaled down version of the Salmon Celebration in early October at the Delta Clearwater River in Delta Junction (408 students, 18 classes). The Copper River basin school received fertilized (green) coho salmon eggs from an egg take at the privately operated Solomon Gulch Hatchery in Valdez. All Sport Fish Region III fry were then released into approved release locations in their areas.

Lakes that are approved for school fry releases are landlocked so that school-raised fry cannot mix with wild salmon in anadromous systems. Teachers may also elect to sacrifice their fry if they do not wish to release them. Classes may, by state policy, also release their fry into the system from which the eggs originated; however, projects sponsored by the STREAM Program are not offered this option in Southcentral Alaska, but may do so in the Fairbanks (Sport Fish Region III) area.

Twenty (20) Cooperative Extension Service sponsored incubation projects received eyed eggs from the Ft. Richardson Hatchery on November 18, 2002. STREAM Program staff assisted with the packaging of those eggs.

Classroom Visits and Presentations

Making presentations to groups of people is one of the more conventional means of getting information out to interested groups. The STREAM Program, however, prefers to be very visual and hands-on when ADF&G staff visit classrooms or adult groups to present topics relating to salmon. The STREAM Program attempts to make presentations interactive, where the audience must participate in some fashion. This may mean asking questions to the audience during the

Table 2.-School egg-take and release information, 2003.

Date	Location	Stream/Lake	Number Students
Anchorage			
Egg Take			
09/23/02	Anchorage	Campbell Creek	143 (6 classes)
09/24/02	Anchorage	Campbell Creek	190 (8 classes)
09/25/02	Anchorage	Campbell Creek	558 (25 classes)
09/26/02	Anchorage	Campbell Creek	514 (22 classes)
09/27/02	Anchorage	Campbell Creek	593 (27 classes)
09/28/02	Anchorage	Campbell Creek	175 (2 classes)
Total		6	2,173 (90 classes)
Released			
05/09/03	Anchorage	Taku-Campbell Lake	1,794 (64 classes)
Total		1	1,794 (64 classes)
Matanuska-Susitna Valley			
Egg Take			
09/30/02	Palmer	Spring Creek	478 (17 classes)
10/01/02	Palmer	Spring Creek	490 (18 classes)
Total		2	968 (35 classes)
Released			
05/13/03	Palmer	Matanuska Lake	521 (23 classes)
Total		1	521 (23 classes)
Kenai Peninsula			
Egg Take			
10/14/02	Seward	Bear Creek	205 (9 classes)
Total		1	205 (9 classes)
Released			
05/03	Nikiski	Chugach Estates L.	30 (1 class)
05/03	Kasilof	Centennial Lake	175 (7 classes)
05/03	Soldotna	Longmere Lake	0
Total		2	205 (8 classes)
Region III / Fairbanks			
Egg Take			
10/08/02	Delta Junction	Delta Clearwater R.	386 (17 classes)
10/02	Valdez	Solomon Gulch	22 (1 class)
Total		2	408 (18 classes)
Released			
05/03	Fairbanks	Bathing Beauty Pond	175 (7 classes)
05/03	Kenny Lake	Strelna Lake	22 (1 class)
05/03	Fairbanks area	Delta-Clearwater R.	25 (1 class)
Total		3	222 (9 classes)
Kodiak			
Egg Take			
11/01/02	Kodiak	Buskin River	322 (14 classes)
Total		1	322 (14 classes)
Released			
05/03	Kodiak	Island Lake	310 (11 classes)
Total		1	310 (11 classes)

presentation or by giving them a hands-on activity to do while a presentation is occurring. Hands-on activities include puzzles, rubber stamps, fish dissections, fly tying and button making. Presentations focus on many salmon-related topics including salmon life histories, biology, habitat requirements, anatomy (dissections), coded wire tag demonstrations, watersheds, stream ecology or fishing.

Table 3 contains summary information on classroom visits and presentations for 2003. During this year, 155 presentations (up from 123 in 2002) were made to groups ranging in size from 2 to 250. Various presentations were made to 7,018 individuals, an increase of 1,124 students from FY02, from kindergarten through adult age levels. Elementary age children were the target of 84.3% of the presentations, 12.3% to junior high students, 2.2% to high school students, and 1.2% to adult groups.

In 2003 the STREAM Program continued the salmon dissection program, where teachers could pick up salmon from a designated location to conduct dissections in the classroom or they could have STREAM Program staff bring fish and lead the dissection. Harbor Seafoods, a local fish processor in Kenai, donated 350 pink salmon to support the program this year. With those fish, along with coho salmon from the Elmendorf Hatchery and school egg takes, the STREAM program distributed 686 fish, which were utilized by 4,145 students for classroom dissections this year. In many instances, coded wire tag demonstrations were conducted, where tags were removed from the heads of specimens. Once used in the classroom, almost all of the fish used for dissections in Anchorage were donated to the Alaska Zoo. The STREAM Program continued the very successful fly tying in the classroom program to introduce students to fly fishing. ADF&G staff, King Career Center Students and other adult volunteers visited 108 classes and worked with 2,361 students to tie the four life history patterns (egg, eyed egg, alevin, fry) they would observe in classroom incubators, as well as some advanced patterns. The majority of school presentations this year were requests for salmon dissections and fly tying.

Aquatic Education Classroom Trailer

In FY02 the STREAM Program received funding through the Wildlife Conservation and Restoration Program (WCRP) to construct a 40-foot aquatic education classroom trailer. During FY02 and FY03 the trailer design and bid process occurred. The Department of Transportation (DOT) took over the bid process after STREAM Program staff worked with trailer manufacturers to design the trailer. The trailer was delivered to Alaska in March 2003 and a mural depicting salmon and their life cycle was completed at the end of June 2003 by well known Alaska artist Ray Troll and his crew.

Several partners contributed to the trailer project. Sponsors who contributed \$10,000 to the trailer project in FY02 include, the Kenai River Sportfishing Association and Phillips Alaska. In FY03, the Fred Meyer Foundation also contributed \$10,000 to the project.

A summary of the year's events leading to the completion of the trailer project are summarize in Table 4.

Table 3.-Classroom visits and presentations conducted by the ADF&G STREAM Program, 2003.

Date	School	# Students	Age Group	Subject
09/09	Woodriver Elem.	68	Elementary	Salmon dissection (3 classes)
09/10	Arctic Light Elem.	22	Elementary	Fly tying – 4 egg patterns (1 class)
09/11	Joy Elementary	24	Elementary	Fly tying – 4 egg patterns (1 class)
09/11	North Pole MS	78	Junior High	Salmon dissection (1 pod)
09/12	Weller Elementary	78	Elementary	Salmon dissection (3 classes)
09/16	Tri-Valley School	11	Junior High	Salmon dissection (1 class)
09/16*	Sherrod Elementary	60	Elementary	Incubator setup and presentation
09/17*	Finger Lake Elem.	30	Elementary	Incubator setup and presentation
09/17*	Larson Elementary	30	Elementary	Incubator setup and presentation
09/18*	Colony MS	32	Junior High	Incubator setup and presentation
09/18*	Academy Charter	28	Elementary	Incubator setup and presentation
09/19*	Goose Bay Elem.	28	Elementary	Incubator setup and presentation
09/23*	Talkeetna Elementary	45	Elementary	Incubator setup and presentation
10/04	Arctic Light Elem.	22	Elementary	Salmon Celebration training
10/09	Kenny Lake Elem.	19	Elementary	Salmon dissection / life cycle
10/17	Scenic Park Elem.	27	Elementary	Incubator setup and presentation
10/18**	Kenai MS	40	Junior High	Salmon dissection (rockfish)
10/21	Lake Hood Elem.	205	Elementary	Salmon dissection (7 classes)
10/21	Trailside Elementary	72	Elementary	Salmon dissection (3 classes)
10/21*	Talkeetna Elementary	35	Elementary	Salmon dissection (2 classes)
10/22	Village Charter	41	Elementary	Salmon dissection (2 classes)
10/23*	Teeland MS	30	Junior High	Watershed presentation
10/24*	Teeland MS	26	Junior High	Watershed presentation
10/24	Whaley School	10	Elementary	Salmon dissection (1 class)
10/24	Chinook Elementary	25	Elementary	Salmon dissection (1 class)
10/30	Chiniak School	10	Elementary	Salmon dissection (1 class)
10/31	St. Mary's School	22	Elementary	Salmon dissection (1 class)
10/31	East Elementary	30	Elementary	Salmon dissection (1 class)
10/31	North Star Elementary	78	Elementary	Salmon dissection (3 classes)
10/31	Main Elementary	43	Elementary	Salmon dissection (2 classes)
11/04	Old Harbor School	61	K-12	Salmon dissection / activities
11/07	Nunaka Valley Elem.	28	Elementary	Salmon dissection (1 class)
11/08*	Swanson Elementary	60	Elementary	Salmon dissection (3 classes)
11/11	Pacific Northern Acad.	12	Elementary	Salmon dissection (1 class)
11/12	Bayshore Elementary	90	Elementary	Salmon dissection (4 classes)
11/12	Lake Otis Elem.	21	Elementary	Salmon dissection (1 class)
11/13	Denali Elementary	26	Elementary	Salmon dissection (1 class)
11/13*	Larson Elementary	30	Elementary	Salmon dissection (1 class)
11/14	Klatt Elementary	52	Elementary	Salmon dissection (2 classes)
11/14	College Gate Elem.	25	Elementary	Salmon dissection (1 class)

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Table 3.-Page 2 of 4.

Date	School	# Students	Age Group	Subject
11/14*	Pioneer Peak Elem.	90	Elementary	Salmon dissection (3 classes)
11/15	Gladys Wood Elem.	75	Elementary	Salmon dissection (2 classes)
11/15	Bear Valley Elem.	90	Elementary	Salmon dissection (3 classes)
11/15*	Finger Lake Elem.	28	Elementary	Salmon dissection (1 class)
11/18	Inlet View Elementary	80	Elementary	Salmon dissection (4 classes)
11/18	Orion Elementary	44	Elementary	Salmon dissection (2 classes)
11/19	Fairview Elementary	60	Elementary	Salmon dissection (4 classes)
11/19	SAVE HS	13	High School	Salmon dissection (1 class)
11/20	Turnagain Elementary	52	Elementary	Salmon dissection (2 classes)
11/20	Willow Crest Elem.	28	Elementary	Salmon dissection (1 class)
11/21	Rogers Park Elem.	40	Elementary	Salmon dissection (1.5 classes)
11/21	Rogers Park Elem.	41	Elementary	Salmon dissection (1.5 classes)
11/22	Northern Lights ABC	21	Elementary	Salmon dissection (1 class)
11/22	Russian Jack Elem.	110	Elementary	Salmon dissection (5 classes)
11/22**	Kenai Pen. College	15	High School	Career presentation
11/25	Mirror Lake MS	115	Junior High	Salmon dissection (1 pod)
11/25	Fire Lake Elem.	40	Elementary	Salmon dissection (2 classes)
11/26	Hanshew MS	30	Junior High	Salmon dissection (1 class)
11/27	Oceanview Elem.	57	Elementary	Salmon dissection (3 classes)
11/28	Eagle River Elem.	40	Elementary	Salmon dissection (2 classes)
11/28	Williwaw Elementary	80	Elementary	Salmon dissection (4 classes)
12/02	Muldoon Elementary	35	Elementary	Salmon dissection (2 classes)
12/02	Rabbit Creek Elem.	63	Elementary	Salmon dissection (2 classes)
12/03*	Teeland MS	80	Junior High	Salmon dissection (1 pod)
12/04*	Teeland MS	60	Junior High	Salmon dissection (1 pod)
12/05*	Teeland MS	60	Junior High	Salmon dissection (1 pod)
12/09	Huffman Elementary	70	Elementary	Salmon dissection (3 classes)
12/09	Abbott Loop Elem.	56	Elementary	Salmon dissection (2 classes)
12/10	Colony MS	57	Junior High	Fly tying – 4 egg patterns (2 classes)
12/10	Butte Elementary	56	Elementary	Fly tying – 4 egg patterns (3 classes)
12/11	Pioneer Peak Elem.	76	Elementary	Fly tying – 4 egg patterns (3 classes)
12/11	Sherrod Elementary	54	Elementary	Fly tying – 4 egg patterns (2 classes)
12/11**	Mt. View Elementary	25	Elementary	Watershed model / presentation
12/11**	Mt. View Elementary	25	Elementary	Watershed model / presentation
12/12	Goose Bay Elem.	44	Elementary	Fly tying – 4 egg patterns (2 classes)
12/12	Wasilla MS	14	Junior High	Fly tying – 4 egg patterns
12/13	Finger Lake Elem.	21	Elementary	Fly tying – 4 egg patterns
12/13	Meadow Lakes Elem.	43	Elementary	Fly tying – 4 egg patterns (2 classes)
12/16	Academy Charter	26	Elementary	Fly tying – 4 egg patterns
12/16	Tanaina Elementary	68	Elementary	Fly tying – 4 egg patterns (3 classes)
12/17	Scenic Park Elem.	24	Elementary	Salmon dissection (1 class)

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Table 3.-Page 3 of 4.

Date	School	# Students	Age Group	Subject
12/19	Teeland MS	40	Junior High	Fly tying – 4 egg patterns
12/19	Teeland MS	48	Junior High	Fly tying – 4 egg patterns
01/09	Homestead Elementary	52	Elementary	Fly tying – 4 egg patterns (2 classes)
01/10	Denali Elementary	24	Elementary	Fly tying – 4 egg patterns
01/13	Orion Elementary	46	Elementary	Fly tying – 4 egg patterns (2 classes)
01/13	College Gate Elem.	24	Elementary	Fly tying – 4 egg patterns
01/14	Gladys Wood Elem.	52	Elementary	Fly tying – 4 egg patterns (3 classes)
01/14	Trailside Elementary	75	Elementary	Fly tying – 4 egg patterns (3 classes)
01/15	Klatt Elementary	50	Elementary	Fly tying – 4 egg patterns (2 classes)
01/15	Alpenglow Elementary	75	Elementary	Fly tying – 4 egg patterns (3 classes)
01/27	King Career Center	14	High School	Fly tying – 4 egg patterns
01/27	King Career Center	20	High School	Fly tying – 4 egg patterns
01/28	Whaley School	14	Elementary	Fly tying – 4 egg patterns
01/28	Village Charter	20	Elementary	Fly tying – 4 egg patterns
01/29	Kasuun Elementary	70	Elementary	Fly tying – 4 egg patterns (2 classes)
01/29	Fire Lake Elementary	40	Elementary	Fly tying – 4 egg patterns (2 classes)
01/30	Turnagain Elementary	54	Elementary	Fly tying – 4 egg patterns (2 classes)
01/30	Ursa Minor Elem.	14	Elementary	Fly tying – 4 egg patterns
02/03	Russian Jack Elem.	46	Elementary	Fly tying – 4 egg patterns (2 classes)
02/03	Pacific Northern Acad.	16	Elementary	Fly tying – 4 egg patterns
02/04	Bear Valley Elem.	86	Elementary	Fly tying – 4 egg patterns (4 classes)
02/05	Inlet View Elem.	29	Elementary	Fly tying – 4 egg patterns
02/05	Russian Jack Elem.	79	Elementary	Fly tying – 4 egg patterns (3 classes)
02/06	SAVE HS	24	High School	Fly tying – 4 egg patterns
02/06	SAVE HS	24	High School	Fly tying – 4 egg patterns
02/06**	Kenai HS	2	High School	Career Day shadow
02/07	Willow Crest Elem.	29	Elementary	Fly tying – 4 egg patterns
02/07	Huffman Elementary	68	Elementary	Fly tying – 4 egg patterns (3 classes)
02/10	Rogers Park Elem.	51	Elementary	Fly tying – 4 egg patterns (2 classes)
02/10	Rogers Park Elem.	47	Elementary	Fly tying – 4 egg patterns (2 classes)
02/11	Lake Otis Elem.	24	Elementary	Fly tying – 4 egg patterns
02/11*	Goose Bay Elem.	25	Elementary	Oksana Ogolenko art award presentation
02/12	Fairview Elementary	43	Elementary	Fly tying – 4 egg patterns (3 classes)
02/12	Chinook Elementary	52	Elementary	Fly tying – 4 egg patterns (2 classes)
02/12	Bayshore Elementary	25	Elementary	Camille Wood art award presentation
02/13	Rabbit Creek Elem.	56	Elementary	Fly tying – 4 egg patterns (2 classes)
02/14	Talkeetna Elementary	33	Elementary	Fly tying – 4 egg patterns (2 classes)
02/18**	Kenai 4-H	17	K-9	Sport fishing presentation
02/19**	Nikiski Elementary	24	Elementary	Salmon dissection (1 class)
02/20	Larson Elementary	101	Elementary	Fly tying – 4 egg patterns (5 classes)
02/20**	Redoubt Elementary	25	Elementary	Salmon dissection (1 class)

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Table 3.-Page 4 of 4.

Date	School	# Students	Age Group	Subject
02/20**	Redoubt Elementary	25	Elementary	Salmon dissection (1 class)
02/21	Glacier View School	38	Elementary	Fly tying – 4 egg patterns (6 classes)
02/21**	Mt. View Elementary	24	Elementary	Salmon dissection (1 class)
02/21**	Mt. View Elementary	24	Elementary	Salmon dissection (1 class)
02/25	Sterling Elementary	24	Elementary	Fly tying – 4 egg patterns
02/25	Nikiski Elementary	29	Elementary	Fly tying – 4 egg patterns
02/26	Redoubt Elementary	49	Elementary	Fly tying – 4 egg patterns (2 classes)
02/27	Mt. View Elementary	46	Elementary	Fly tying – 4 egg patterns (2 classes)
02/27	K-Beach Elementary	57	Elementary	Fly tying – 4 egg patterns (3 classes)
02/28	Anchor Point School	45	Junior High	Fly tying – 4 egg patterns (3 classes)
02/28	Ninilchik School	18	High School	Fly tying – 4 egg patterns
02/28	Ninilchik School	20	Elementary	Zac Cooper art award presentation
03/05**	Sears Elementary	44	Elementary	Salmon dissection (2 classes)
03/06**	Sterling Elementary	46	Elementary	Salmon dissection (2 classes)
03/07*	Big Lake 4-H	8	Elementary	Fly tying - several patterns
04/03*	Great AK Sport Show	25	Adult	Stocked Lakes presentation
04/05*	Great AK Sport Show	60	Adult	Stocked Lakes presentation
04/09*	Big Lake Elem.	60	Elementary	Salmon dissection (2 classes)
04/11*	Talkeetna Elementary	33	Elementary	Earth Day training (watersheds)
04/14	Fire Lake Elem.	56	Elementary	Salmon life cycle / Chucky Chum
04/17	Ravenwood	52	Elementary	Watershed 101
04/22*	Finger Lake Elem.	24	Elementary	Design a Fish activity
04/23*	Colony MS	58	Junior High	Salmon dissection (1 pod)
04/25*	Snowshoe Elementary	250	Elementary	Career Day presentation
04/28**	K-Beach Elementary	25	Elementary	Watershed model presentation
04/28**	K-Beach Elementary	25	Elementary	Watershed model presentation
04/28**	K-Beach Elementary	25	Elementary	Watershed model presentation
04/29*	Wasilla HS	20	High School	MS Salmon Celebration training
05/05	Kenai River Center	63	Elementary	KP Salmon Celebration training
05/08	BP Energy Center	62	Elementary	ASD Salmon Celebration training
05/12	Teeland MS	70	Junior High	MS Salmon Celebration training
06/13	Girl Scouts USA	79	K-12	Fly tying - 5 patterns
06/14	Girl Scouts USA	96	K-12	Fly tying - 5 patterns
Total	155	7,018		

* Presentations made by STREAM Program Technician – Palmer office.

** Presentations made by STREAM Program Biologist – Soldotna office.

Table 4.-Aquatic Education Trailer construction milestones and activities, 2003.

Date	Construction milestone/activity
07/16	Travel to Golden Gait Trailer, Charlotte, NC for trailer layout meeting
08/23	Golden Gait Trailer receives bid for trailer
08/30	AK Dept. of Transportation (DOT) approves trailer mural work
10/24	Tractor request for quote (RFQ) to administration staff
11/14	Tractor request sent to DOT
12/04	Travel to Featherlite (trailer builder) in Cresco, IA to go over interior layout
01/02	Travel to Featherlite in Cresco, IA to do final trailer inspection before shipment to Alaska
01/08	Trailer mural RFQ to administrative staff
01/10	Meeting at Alaska Truck Center to go over International tractor specifications
01/15	Approved International tractor specifications to DOT
01/27	Selected tractor color (light green / blue metallic)
03/11	STREAM Biologist passes written Commercial Drivers License (CDL) class A test
03/14	Trailer arrives in Seattle - ready to ship to Alaska via barge
03/20	Trailer arrives in Anchorage
04/01	Trailer dropped at Ben Boeke Arena (Anchorage) for Great Alaska Sportsman's Show (GASS)
04/02	T-shirt fish printing (53 children) and Fly Tying Theater (1,000 adults) at GASS (04/02-04/06)
05/13	International Model 4400 tractor arrives
06/03	STREAM Biologist passes CDL - class A driving course
06/16	Ray Troll and mural crew arrive to paint trailer
06/17	International tractor released to STREAM Program by DOT
06/26	Trailer mural work completed
06/27	Trailer to reception at ADF&G regional office (75-100 staff attend)
06/27	Reception for trailer and artists (50 people)
06/30	Sponsor and ADF&G logos installed on trailer – trailer project complete

Field Educational Experiences

The STREAM Program occasionally receives requests from groups to lead outdoor presentations at a local stream or river. These talks range from assisting a Girl Scout Troop earn a nature badge to more detailed discussions with technical groups to consult on stream problems. Most of the field trips are based on a watershed perspective so that participants can become more aware of the “big picture,” that fish and aquatic organisms require more than just water to survive and how man’s impacts on a watershed can impact aquatic life. Hands-on activities usually accompany these presentations and typically several sites may be visited along a stream to discuss changes that have occurred in the system. Hands-on activities may include: sampling aquatic macroinvertebrates using nets, trapping juvenile salmonids or testing water quality with

test kits. All these activities are incorporated into the presentation so that the “big picture” becomes clear.

In 2003, 253 students were led on watershed field trips to Campbell and Chester Creeks in Anchorage, the Little Susitna River in Palmer and the Russian River near Cooper Landing on the Kenai Peninsula (Table 5).

Teacher Workshops/In-Services

Teachers are becoming more interested in educating their students about salmon and streams. If trained properly, these teachers can assist the ADF&G in getting the word out in their classrooms. This becomes even more important when demand for STREAM Program staff class visitations exceeds available time. It is for this reason that the proper training of instructors is a high priority of the STREAM Program. Time is well spent when you can assemble several teachers together at a single time rather than on a one-on-one basis. Teacher workshops are considered formal or informal. Informal training sessions are not required by a school district, where in-services are formal training sessions required by a district. Other sessions may involve the training of volunteers to assist at a STREAM Program event.

During 2003, five teacher training events were held and attended by 167 people (Table 6), including the Cooperative Extension Service’s Incubation Workshop for statewide teachers in Fairbanks.

Adopt-A-Stream Program

Adopt-A-Stream (AAS) programs are becoming increasingly popular across the country. These programs enable the general public to care for or monitor a favorite section of stream. In Southcentral Alaska these AAS projects are also used as an educational tool. The STREAM Program works primarily with schools and non-profit groups who wish to establish AAS projects. The program has grown from a single project in 1996 to seven projects in 2003 (Table 7) with approximately 390 stream watchers. Participating adult groups are most interested in cleaning up sections of stream.

Schools may participate in AAS projects for educational purposes. Too many similar monitoring projects have promised teachers that their data would be stored in databases or used to fix potential problems in their streams, and historically these promises have never been kept. Many educators lost faith in these programs as a result and the STREAM Program has attempted to restore some of that lost faith in the name of education.

Teachers are informed up front that the purpose of the program is educational and not scientific in nature. It is suggested that schools participate at whatever level they feel comfortable and that they are collecting water quality data to maintain their own database. This database can then be used to “communicate” findings with other schools in the same watershed or even different areas.

Water quality sampling equipment has been made available to teachers in Anchorage, the Matanuska Valley and the Kenai Peninsula. Instructors who have completed a training course may check the kits out for use at their AAS site. These kits are currently available for check out at the King Career Center (KCC) in Anchorage, the ADF&G area office in Palmer, the Kenai River Center and ADF&G area office in Soldotna, and the ADF&G office in Homer.

Table 5.-Field educational experiences conducted by the ADF&G STREAM Program, 2003.

Date	School/Organization	# Students	Age Group	Location	Subject
08/16	West High School	4	High School	Chester Cr.	Watershed Walk
09/04**	Mt. View Elementary	44	Elementary	Russian R.	Russian River Falls and spawning salmon
10/10*	Teeland Middle School	30	Junior High	Little Su R.	Stream ecology, fish and macroinvertebrate ID
10/11*	Teeland Middle School	24	Junior High	Little Su R.	Stream ecology, fish and macroinvertebrate ID
10/12*	Teeland Middle School	26	Junior High	Little Su R.	
05/08	Ravenwood Elementary	53	Elementary	Fire Creek	Stream ecology, fish ID
05/11	North Star Elementary	72	Elementary	Campbell Cr.	Stream ecology, fish and macroinvertebrate ID, Scavenger hunt
Total	7	253			

* Presentations made by STREAM Program Technician – Palmer office.

** Presentations made by STREAM Program Biologist – Soldotna office.

Table 6.-Teacher workshops and in-services conducted by the ADF&G STREAM Program, 2003.

Date	District	Teachers	Location	Subject
09/13	Statewide	32	Fairbanks	CES incubation workshop
10/30	Kodiak	12	Kodiak	Incubation / Salmon Celebration
11/07	Statewide	100	UA - Kodiak	Incubation credit course
11/11	Anchorage	9	King Career Center	Fish dissection / fly tying
04/26	Kenai Pen.	14	Homer	Credit course – Anchor River watershed
Total	5	167		

Schools may participate at varying levels in activities which may include: stream cleanup (litter), stream and habitat surveys, macroinvertebrate (aquatic insect) surveys, water quality testing using chemical test kits, or involvement in an actual small-scale stream restoration project if they determine one may be necessary.

Educational Material Development

As the STREAM Program's educational effort continues to expand so does the need for new materials to meet the demands of the growing program. The STREAM Program continues to design new effective hands-on ways to increase the public's awareness of Alaska's salmon resources.

Table 7.-Adopt-A-Stream programs sponsored by the ADF&G STREAM Program, 2003.

Stream	School/Organization	Number Participants	Activity	Sign
Kenai River	Alaska Fly Fishers	90	cleanup	yes
Chester Cr.	Rogers Park Elementary	30	clean/monitor	no
Slikok Cr.	Kalifornsky Beach Elementary	50	clean/monitor	no
Moose River	Sterling Elementary	50	clean/monitor	yes
Campbell Cr.	Gladys-Wood Elementary	30	clean/monitor	no
Ship Creek	Aerospace 3 rd EMS Ground Equip. and Flight	100	cleanup	yes
Ship Creek	3WG Maintenance Operations Center	40	cleanup	yes
Totals	7	390		

STREAM Program educational developments from 2003 (Table 8) include:

1. Classroom sets (30 copies) of the new *Alaska's Wild Salmon* were distributed to all schools in Southcentral Alaska. A total of 6,302 copies were distributed.
2. "First Catch" cards were again printed, laminated and distributed to children catching their first fish during STREAM Program ice fishing events and the Great Alaska Sportsman's Show. A total of 158 cards were distributed.
3. Salmon life cycle posters (184) and egg development vial displays (12) continue to be distributed to instructors.
4. Educational web pages continue to be created and updated for use by instructors.
5. New Habitat Division watershed education materials were distributed to classroom incubation instructors. The materials include a poster (148), pamphlet (3,345) and CD (66). In addition, the pamphlet was distributed in classroom sets (30) to all Anchorage School District libraries.
6. STREAM Program staff visited the Lower Kenai Peninsula (Homer area) to discuss expansion of the STREAM Program to that area and to scout out potential coho salmon egg-take locations for future school projects.

OUTREACH

Stream Restoration/Habitat Activities

Integration of small-scale stream restoration projects with education has been an effective tool in increasing the public's awareness of salmon and especially the protection of their habitat. These projects are often very time consuming to plan, coordinate and implement, so unfortunately, the STREAM Program continues to decrease its efforts in this area, but will make opportunities available to the public should they become available at a reasonable time and cost.

Table 8.-Educational materials developed by the ADF&G STREAM Program, 2003.

Educational Aid	Comments
Salmon dissection program	686 salmon distributed and utilized by 4,145 students
Alaska's Wild Salmon book	6,302 copies distributed to all SC Alaska schools
Habitat Div. Watershed poster	148 distributed to Incubation program instructors
Habitat Div. Watershed pamphlet	3,345 distributed to all ASD schools
Habitat Div. Watershed CD	66 distributed to Incubation program instructors
Adopt-A-Stream Streamkeepers manual	15 copies to participating AAS schools and agency people
Pacific Salmon Alaska's Story	12 copies distributed to participating schools
Salmon life cycle poster	184 copies distributed
Salmon Odyssey interactive CD	0 copies distributed
Salmon egg/vial displays	12 distributed
CES incubator set-up video	7 distributed
First Catch Card program	158 cards distributed to kids catching their first fish
ADF&G incubation program manuals	11 copies distributed
Primary <i>Salmonids in the Classroom</i> curriculum	13 copies distributed
ADF&G game fish species poster	27 copies distributed
Fly Tying in the Classroom pamphlets	2,360 distributed to classroom participants
STREAM Program educational trailer	Completed in FY03
Educational web sites	Updated and improved
Alaska Zoo fish display	Rainbow trout to bear pool for public display
Lower Kenai Peninsula education	Explored potential egg take sites for program expansion
Grant requests	KRSA and Phillips-Conoco for chillers and trailer work
Freezer purchase	Freezer for Soldotna staff school dissection fish
Education staff support equipment	Ken-A-Vision and watershed models purchased and distributed
Fly Tying in the Classroom pamphlet	Updated
Classroom Incubation equipment	32 refrigeration units constructed through KRSA donation
Becoming an Outdoor Woman	Planning for Soldotna winter event begins
Primary version <i>Salmonids in the Classroom</i>	Updated and copies printed
Fly Fishing education	20 float tubes purchased for anticipated events
Salmonid Education pins	Purchased for prizes and volunteer recognition
KRSA Kids Rod Give Away Program	Donated old or unused fly rods to KRSA to refurbish
T-shirt fish printing	Trailer and event activity – rubber fish printed on t-shirts

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Table 8.-Page 2 of 2.

Educational Aid	Comments
GASS pond volunteer T-shirts and hats	New design "Thank you" for pond and program volunteers
GASS trailer banner	Banner acknowledging trailer contributors
Water quality / macro test kits	New kits to Homer and Soldotna ADF&G
Chucky Chum rubber stamp handout	7,000 copies reprinted
Fly pattern shadow box	Flies representing macroinvertebrates to display during classes
Animal track activity	Animal track board with associated animal pictures constructed
GASS scholarship	\$2480.63 from GASS to KCC Natural Resources students
Scavenger Hunt activity	Scavenger hunt sheets for all egg-take and release locations
Salmon Celebration partners	AK Sealife Center and WC staff set up booths at events
Educational trailer equipment	Purchased activities, watershed models, electronics

During 2003, only one restoration/habitat project occurred, and that was a meeting along a streambank on the Little Susitna River to discuss a potential school restoration project with an instructor (Table 9).

Table 9.-Stream restoration/habitat activities (outreach) conducted by the ADF&G STREAM Program, 2003.

Date	Location	No. Volunteers	Man Hours	Coop Agency/Org	Project
06/23/03	Little Susitna R.	0	0	ADFG/Wasilla MS	River access / Rehab options
Total	1	0	0		

Shows and Special Events

Large events or shows (Table 10) are an excellent way to reach out to segments of the population that may not have access to or a specific interest in fish or fishing. The activities at events in which the STREAM Program participates are always very hands-on oriented and easy to understand by the general public.

The STREAM ice fishing program continues to be a popular hands-on activity for instructors with an interest in expanding on their classroom salmon projects. This project serves as an introduction to winter fishing opportunities around Southcentral Alaska with ice fishing events held in Anchorage (Jewel Lake) and the Matanuska-Susitna Valley (Finger Lake). In Anchorage 1,782 students caught 131 fish, almost exclusively catchable Chinook salmon (*Oncorhynchus tshawytscha*). Of the Anchorage student anglers, 30 (23%) caught their first fish ever. In the Matanuska-Susitna Valley 665 student anglers caught 566 fish and 40 (7.1%) of these caught

Table 10.-Shows and special events attended or sponsored by the ADF&G STREAM Program, 2003.

Date	Event	Location	Attendance	# Volunteers	Purpose	Comments
07/06	Kenai River Classic	Soldotna Sports Center	200	9 (36 man hours)	fly tying demo	guests tied egg sucking leech pattern
10/08	Fairbanks Salmon Celebration	Delta-Clearwater River	386	22 (110 man hours)	salmonid awareness	Egg take and hands-on activity booths – 17 classes
01/10	O'Malley Science Night	O'Malley Elementary - Anchorage	250	4 (8 man hours)	salmonid awareness	hands-on salmon activity booths
01/16	Mat-Su Borough School District (MSBSD) ice fishing	Finger Lake Palmer	315	7 (30 man hours)	winter fishing opps	29 fish caught, 7 first catch cards issued
01/17	MSBSD ice fishing	Finger Lake Palmer	350	6 (24 man hours)	winter fishing opps	537 fish caught, 33 first catch cards issued
01/21	Anchorage School District ice fishing	Jewel Lake Anchorage	479	19 (62 man hours)	winter fishing opps.	31 fish, 7 first catch cards
01/22	Anchorage School District ice fishing	Jewel Lake Anchorage	490	18 (60 man hours)	winter fishing opps.	16 fish, 4 first catch cards
01/23	Anchorage School District ice fishing	Jewel Lake Anchorage	451	14 (46 man hours)	winter fishing opps	24 fish caught, 6 first catch cards issued
01/23	Huffman Science Night	Huffman Elementary - Anchorage	200	4 (8 man hours)	salmonid awareness	hands-on salmon activity booths
01/24	Anchorage School District ice fishing	Jewel Lake Anchorage	362	15 (60 man hours)	winter fishing opps	60 fish caught, 13 first catch cards issued
01/28	Sport Fish Regulations Art Contest	Southcentral region	561	0	student artwork for regulation covers	Zac Cooper – 1 st place
01/28	Sport Fish Regulations Art Contest	Bristol Bay region	57	0	student artwork for regulation covers	Kristy Mark – 1 st place

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Table 10.-Page 2 of 3.

Date	Event	Location	Attendance	# Volunteers	Purpose	Comments
03/13	Trailside Science Night	Trailside Elementary - Anchorage	300	4 (8 man hours)	salmonid awareness	hands-on salmon activity booths
04/03	Great Alaska Sportsman Show	Ben Boeke Arena - Anchorage	322	30 (150 man hours)	ASA Kids Fishing Pond	KCC volunteers–booths, pond, stocking, fish cleaning, 2 first catch cards issued
04/04	Great Alaska Sportsman Show	Ben Boeke Arena - Anchorage	60		ASA Kids Fishing Pond	ASD Intensive Needs special fishing event at pond - 13 first catch cards issued
04/04	Great Alaska Sportsman Show	Ben Boeke Arena - Anchorage	651		ASA Kids Fishing Pond	KCC volunteers–booths, pond, stocking, fish cleaning, 22 first catch cards issued
04/05	Great Alaska Sportsman Show	Ben Boeke Arena - Anchorage	1,500		ASA Kids Fishing Pond	KCC volunteers–booths, pond, stocking, fish cleaning, 34 first catch cards issued
04/06	Great Alaska Sportsman Show	Ben Boeke Arena - Anchorage	1,440	Total for event = 35 students (427 man hours)	ASA Kids Fishing Pond	KCC volunteers–booths, pond, stocking, fish cleaning, 17 first catch cards issued
04/19	Talkeetna Earth Day	Talkeetna	100	30 (120 man hours)	salmonid awareness	hands-on salmon activity booths
04/28	ASD - KCC recognition presentation	ASD King Career Center	13	0	Recognize KCC class for volunteering	volunteer shirts and hats awarded
04/28	ASD - KCC recognition presentation	ASD King Career Center	14	0	Recognize KCC class for volunteering	volunteer shirts and hats awarded
04/28	ASD volunteer recognition banquet	Mears Middle School	400	0	recognition	STREAM program recognition by Carol Comeau (ASD Super.)
05/06	Kenai Pen. Salmon Celebration	Johnson Lake – Kasilof	736	75 (375 man hours)	salmonid/ fishing awareness	hatchery trout release and hands-on activity booths – 36 classes

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Table 10.-Page 3 of 3.

Date	Event	Location	Attendance	# Volunteers	Purpose	Comments
05/09	Anchorage Salmon (fry) Celebration	Taku-Campbell Lake - Anchorage	1,794	64 (288 man hours)	salmonid/fishing awareness	classroom fry release and hands-on activity booths – 76 classes
05/13	Mat-Su Salmon Celebration	Matanuska Lake - Palmer	1,174	90 (450 man hours)	salmonid/fishing awareness	hatchery trout / school fry release and hands-on activity booths – 57 classes
05/30	Anchorage Salmon (smolt) Celebration	Campbell Creek - Anchorage	1,645	68 (306 man hours)	salmonid/fishing awareness	smolt release and hands-on activity booths - 68 classes
05/31	Jakes Day	Rabbit Creek Rifle Range - Anchorage	67	2 (8 man hours)	fishing education	children’s event - fly tying – egg sucking leech, fly rod casting
06/08	Kenai River Festival	Kenai	500	8 (48 man hours)	salmonid awareness	hands-on activity booths and fish t-shirt printing
06/09	Kenai River Festival	Kenai	400	8 (48 man hours)	salmonid awareness	hands-on activity booths and fish t-shirt printing
06/13	Girl Scout Encampment	Palmer State Fairgrounds	79	9 (63 man hours)	fishing education	fly tying – 6 patterns
06/14	Girl Scout Encampment	Palmer State Fairgrounds	96	9 (63 man hours)	fishing education	fly tying – 6 patterns
Total			15,392	550 (2,798 man hours)		

their first fish. The Matanuska-Susitna Valley student catch was also dominated by the catchable Chinook salmon, but they also caught rainbow trout (*O. mykiss*), Arctic char (*Salvelinus alpinus*) and Arctic grayling (*Thymallus arcticus*) from Finger Lake.

Fiscal year 2003 saw the continuation of the “Salmon Celebration” program. All of the Salmon Celebrations are associated with a spring fish release with the exception of the Fairbanks area, which occurs during the fall egg take.

The two Anchorage events had a combined attendance of 3,439 students. The first Anchorage Salmon Celebration was held in conjunction with the release of classroom incubation coho fry by participating Anchorage area schools. The second event was a district-wide event where Anchorage school students were given coho smolt to release as part of ADF&G’s urban coho stocking program. The smolt came from the Ft. Richardson Hatchery.

The Salmon Celebration held in Kodiak was cancelled in 2003 due to mechanical and scheduling problems with the state ferry Tustumena, which is the only mode of transportation available to get the Salmon Celebration to Kodiak Island.

The Matanuska-Susitna Valley Salmon Celebration was a combined fish release event. Students who had raised coho salmon in their classrooms released their fish into Matanuska Lake. Other district-wide students who were in attendance received catchable rainbow trout from Elmendorf Hatchery in Anchorage to release as part of the annual stocking program. Overall attendance was 1,174 students.

The Kenai Peninsula Celebration had an attendance of 736 students. Students arriving from around the Kenai Peninsula School District were given catchable rainbow trout from the Ft. Richardson Hatchery to release into Johnson Lake in Kasilof. These catchable fish were also part of the stocking allocation for that lake.

After releasing their fish, classes visited the hands-on booths where they learned more about various salmon, stream and fishing topics. The activity booths included salmon life cycle rubber stamps, macroinvertebrate touch tank, live fish display, button making, salmon habitat “wheel of misfortune,” watershed model, animal skulls, hides and tracks, salmon anatomy puzzles, handouts (including fishing regulations), fly tying and fly casting stations, and spin casting station. Wildlife Conservation and Alaska Sealife Center staff also attended the Mat-Su event this year and set up activity booths.

The Fairbanks area Salmon Celebration was held in the fall during the school egg take because it would have been difficult to assemble all the participating classes for a spring event. Three hundred and eight six students from Tok to Fairbanks attended the event at the Delta-Clearwater River. After doing the hands-on activities the classes left with their eggs for their classroom projects.

Overall attendance for all the Salmon Celebration events was 5,735 students. Three hundred and nineteen volunteers made these events possible this year, including students from Rabbit Creek Elementary school and King Career Center in Anchorage, Teeland Middle and Wasilla High schools in the Matanuska-Susitna Valley, Kalifornsky Beach elementary school in Soldotna, and Arctic Light Elementary in Fairbanks.

Other major events this past year included the Kid's Fishing Pond with activity booths and local celebrity helpers at the Great Alaska Sportsman's Show (GASS) (2,973 children) and the Kenai River Festival (600 children).

GASS organizers with Aurora Productions again donated 50% (\$2480.63) of the children's show admission fee to the King Career Center's Natural Resources Class for running the activity booths and Kid's Fishing Pond at the show. Scholarships were then awarded to college bound students interested in pursuing careers in fish or wildlife with the donation.

This year's Sport Fish regulations cover art contest was held in three regions: Southcentral (combined Cook Inlet / Prince William Sound area), and Bristol Bay. Six hundred and eighteen entries were received from the two areas and fishing poles and other small prizes were awarded to the first through third place winners. It was decided later to revise the Kodiak regulations and the second place winner from the previous year was selected as the cover for those booklets.

The STREAM Program also teamed up again with the ADF&G Division of Wildlife Conservation (WC) to work with women and children who wanted to learn outdoor hunting and fishing skills through the WC programs “Women in the Outdoors” and “Jakes Day.” STREAM

Program staff held sessions to teach the attendees how to tie a fly (egg-sucking leech) and cast a fly rod.

Many volunteers make these large events possible. In 2003, 550 volunteers spent at least 2,798 man-hours ensuring that events were a success. People participating in or attending this year's events totaled 15,392.

Media Coverage

The media (Table 11) continues to play an important role in getting the STREAM Program word out to the public. Anchorage area media are very interested in the various projects that the STREAM Program conducts and although most stories are considered general interest, it still assists the department in getting the word out. The positive nature of these stories can only help a department whose media image, unfortunately, is oftentimes negative. Media in other areas of the state and even the country are becoming interested in STREAM Program activities as it expands into new areas of the Southcentral and Interior regions. In 2003 STREAM Program events or topics were covered 56 times. The STREAM Program will continue to take advantage of the media when there is interest in helping the department get more information out to the public.

Requests for Information or Materials

Table 12 documents requests for information or materials during 2003. In 2003, the STREAM Program responded to 576 requests. These requests ranged from phone information to loans of scientific or educational materials.

Program Contributions

Many agencies, schools, businesses, organizations and individuals have made contributions to the STREAM program to either support or enhance activities. It is important to recognize and thank these people for their generous support. This year's contributors include:

Great Alaska Sportsman's Show:

ASD King Career Center – manpower to run pond and booths

Mike Moen (\$125) - recognition banner

SAM's Club (\$50) and Bill's Distributing (\$125) – soft drinks for volunteers.

Arctic Roadrunner (\$2800), Block Buster Video (\$50), Castle on O'Malley mini golf (\$100), Schoolhouse Express (\$50), Classic Toys (\$800), KIMO 13 (\$100) - pond prizes.

KTUU Channel 2 (Maria Downey, Meg Baldino, Jason Moore, Joy Mapaye), KTVA Channel 11 (Lauren Maxwell, Eileen Floyd), KIMO Channel 13 (Ty Hardt, Traci Kempert, Nicole Rogers, Lorraine LeBretten, April Davis, McHugh Pierre, Cary Carrigan), MAGIC 98.9 FM (Marcus Lewis, April Powers, Dave Flavin, Brian Ross), FOX 100.5 FM (Bob Lester, Mark the Hitman), KGOT 101.3 FM (Scott Dooley, Bill Stewart), Clear Channel radio staff (Julie Shumway, Jay Walker), Iditarod musher Martin Buser, ASD Superintendent Carol Comeau – Celebrity assistance at the Kid's Fishing Pond.

Anchorage Fire Department – pond fill.

Table 11.-Media coverage of the ADF&G STREAM Program, 2003.

Date	Media Organization	Event	Coverage Type
07/01	Anchorage Daily News	AK Zoo rainbow trout / bears	Photo / caption
09/15	Anchorage Daily News	Reg. artwork request release	newspaper release
09/22	Anchorage Daily News	Campbell Creek egg take	newspaper release
09/23	KIMO Channel 13	Campbell Creek egg take	television news
09/23	KIMO Channel 13	Cary Carrigan weather lead	television news
09/25	KTVA Channel 11	Campbell Creek egg take	television news
09/25	KNBA 90.3 FM	Campbell Creek egg take	radio story
09/26	KTUU Channel 2	Campbell Creek egg take	television news
10/04	Valley Frontiersman	Mat-Su Spring Creek egg take	newspaper article
10/24	Seward Phoenix Log	KP - Bear Creek egg take	newspaper article
10/31	Seward Phoenix Log	Bear Creek Weir staff	thank you
11/05	Kodiak Daily Mirror	Kodiak egg take	newspaper article
11/18	KIMO Channel 13	Inlet View dissection	television news
11/28	Eagle River Star	Eagle River Elem. dissection	newspaper article
12/08	Anchorage Daily News	Reg. artwork request reminder	newspaper release
12/10	Alaska Magazine	AK Zoo rainbow trout / bears	magazine article
01/13	KTUU Channel 2	College Gate fly tying	television news
01/13	KIMO Channel 13	College Gate fly tying	television news
01/16	Anchorage Chronicle	ASD fly tying	newspaper article
01/19	Anchorage Daily News	ASD fly tying	newspaper release
01/21	KTUU Channel 2	ASD Jewel Lake ice fishing	television news
01/21	KIMO Channel 13	ASD Jewel Lake ice fishing	television news
01/23	Anchorage Daily News	ASD Jewel Lake ice fishing	"Metro" photo / caption
01/25	Anchorage Daily News	ASD Jewel Lake ice fishing	front page photo / caption
01/26	Anchorage Daily News	ASD Jewel Lake ice fishing	"Outdoors" photo / caption
01/27	KTVA Channel 11	KCC fly tying	television news
01/31	Anchorage Daily News	ASD Jewel Lake ice fishing	"8" photo
02/24	KBBI public radio	Kenai Peninsula fly tying	radio story
02/28	Peninsula Clarion	Kenai Peninsula school fly tying	article
03/02	Anchorage Daily News	Regulation art contest winners	newspaper release
03/05	Homer Tribune	Chapman School fly tying	photo / caption
03/30	Anchorage Daily News	GASS Pond / trailer	supplement
04/23	Homer radio station	Homer teacher workshop	radio story
04/24	Homer News	Homer teacher workshop	news release
05/07	Peninsula Clarion	Johnson Lake Salmon Celebration	newspaper article
05/08	Anchorage Daily News	Johnson Lake Salmon Celebration	photo / caption
05/09	KTUU Channel 2	ASD classroom fry release	television news
05/09	KTVA Channel 11	ASD classroom fry release	television news
05/09	KIMO Channel 13	ASD classroom fry release	television news
05/27	Anchorage Daily News	Jakes Day	news release
05/28	KOOL 97.3	ASD smolt release	live radio interview
05/29	KTUU Channel 2	Canoe Lake fishing report	television news
05/30	KTUU Channel 2	Anchorage Salmon Celebration	television news
05/30	KTVA Channel 11	Anchorage Salmon Celebration	television news
05/30	KIMO Channel 13	Anchorage Salmon Celebration	television news

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Table 11.-Page 2 of 2.

Date	Media Organization	Event	Coverage Type
05/30	KTUU Channel 2	Canoe Lake fishing report	web page
06/01	Anchorage Daily News	Jakes Day	newspaper article
06/02	KIMO Channel 13	Cary Carrigan weather lead	television news
06/05	KTUU Channel 2	Carpenter vs. Kraus part 1	television news
06/09	CES Water Pipeline	ASD Salmon Celeb. / watershed	newsletter article
06/13	Peninsula Clarion	Kenai River Festival	news release
06/15	Peninsula Clarion	Kenai River Festival	newspaper article
06/25	Anchorage Daily News	Education trailer mural work	front page photo / caption
06/26	KTUU Channel 2	Education trailer mural work	live morning news
06/26	KTUU Channel 2	Carpenter vs. Kraus part 2	television news
06/26	KTUU Channel 2	Education trailer mural work	television news
Total	56		

Fly Tying in the Classroom Program:

Pudge Kleinkauf and ASD King Career Center – volunteer classroom support

Eagle Claw – supplied hooks for fly tying program.

Classroom Salmon Egg Incubation Program:

Kenai River Sportfishing Association (\$17,000) – Refrigeration equipment for the classroom incubation program.

Aquatic Education Mobile Classroom Trailer:

Fred Meyer Foundation (\$10,000) – Trailer contribution

Municipality of Anchorage People Mover – Trailer painting space in bus garage

Kenai River Sportfishing Association (\$2,000 – Printed t-shirts (ADF&G and KRSA logos) for trailer fish printing activity

Miscellaneous:

Harbor Seafoods – 350 pink salmon for school dissections.

World Wide Movers – Boxes, tape, corners, cellophane wrap for packaging Alaska's Wild Salmon books for shipment to schools

Stocked Lake Maps Series

Another component that was brought into the Education Program in 1997 was the continuation of the “Stocked Lake Maps” series. In 1995 the staff in the Palmer area office initiated the publication of a series of maps for the lakes stocked in the Matanuska-Susitna Valley area. This publication included information on each lake including a bathymetric (underwater contour) map if available, description of public access to the lake, average depth, maximum depth, volume, map location, stocking history, surface area, Statewide Harvest Survey information and stocking plan. In 1996, this series was expanded to include an Anchorage Lake Map series. In 1997, as part of the I&E program, lake series maps were completed for the Upper Copper and Upper

Susitna management area. All of these were also made available online on the regional web pages.

“During FY03 the Matanuska-Susitna Valley Stocked Lakes book was updated with current stocking, test net sampling and statewide harvest information. Mapping for three Kenai Peninsula stocked lakes was also completed. Corrections to maps were also made to the books, and they were made available online.”

Table 12.-Requests for information, materials and equipment from the ADF&G STREAM Program, 2003.

Requests for materials or information	552
Educational material loans	20
Scientific or field equipment loans	4
Total	576

FUTURE GOALS

Education and Outreach

Future program goals for education and outreach are:

1. Complete aquatic classroom education trailer and get trailer operational by July 2003.
2. Expand the classroom salmon egg incubation program where requested in all areas. Concentrate on expansion on Lower Kenai Peninsula.
3. Investigate potential for Bristol Bay area education.
4. Maintain or increase participation level in the school dissection and fly tying in the classroom program.
5. Continue to investigate and take advantage of community funding sources or support to meet the demands of the expanding STREAM Program.
6. Expand duties of seasonal technician in the Matanuska-Susitna Valley, Kenai Peninsula and Anchorage area personnel.

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The STREAM Program would like to acknowledge the efforts of all the volunteers and staff who helped at the many events held this year, but especially to ADF&G Technicians Craig Baer, Mark Mahoric and biologist Patti Berkhahn for assisting the STREAM Program during programs throughout Southcentral Alaska. Thanks, as always, to the staff at the Fort Richardson and Elmendorf Hatcheries for supplying staff time, fish and stocking coordination and trucks for many of the STREAM Program’s events. Thanks to Mike Woods and his Natural Resources class at the King Career Center for making the Great Alaska Sportsman’s Show Kids Fishing Pond and activity booths a success and for the many hours the students helped during ice fishing,

fly tying, fish releases and carnivals. Thanks to the Rabbit Creek Elementary sixth grade (Anchorage); Teeland Middle and Wasilla High School classes (Mat-Su); Arctic Light Elementary sixth grade (Fairbanks); and Kalifornsky Beach Elementary class for making all this year's Salmon Celebrations a success. Thanks to the many other agencies, businesses, organizations and individuals noted previously who have helped this year. Finally, to all the teachers and school district staff throughout Southcentral Alaska and the Interior who make my job enjoyable and rewarding – thanks for helping me make students more aware of our salmon resources. Without the support of volunteers, teachers and community many of the STREAM Program's events would not be possible.

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