

2002 Volunteer Salmon Watcher Program

Lake Washington Watershed
and Vashon Island

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King County Water and Land Resources Division, in cooperation with:
Lake Washington/Cedar/Sammamish Watershed Forum
Central Puget Sound Watershed Forum
King Conservation District
Snohomish County Surface Water Management
Bellevue Stream Team
Cities of Bothell, Issaquah, Kirkland, Redmond, Renton, Seattle, and Woodinville

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Summary

In 1996, the Bellevue Stream Team, King County Water and Land Resources Division, the Muckleshoot Indian Tribe, the Snohomish County Surface Water Management Division, and the Washington Department of Fish and Wildlife began a jointly coordinated volunteer spawning survey program in the Lake Washington Watershed (all waters draining through the Ballard Locks). In 1997, the program evolved into the Salmon Watcher Program as it is today and has been conducted annually since. The purpose of the program is to document the distribution of spawning adult salmon throughout the basin via an active public outreach and education program, and subsequently consolidate all the information into a single resource (this report). These data can be used by policy makers and the public to improve how aquatic resources are managed, to protect salmon and trout species, and to enhance their habitat.

For the 2002 program, 151 volunteers surveyed 175 sites on 66 streams throughout the Lake Washington Watershed and Vashon Island streams from late August 2002 to February 2003. Because volunteers collect the data in this program, the agencies are able to obtain information from far more locations than would otherwise be possible. However, data in this report should be used with the following factors in mind:

- (1) Volunteer expertise in locating and identifying fish species varied from very high to very low;
- (2) Coverage of streams by volunteers was by no means complete; therefore, fish distribution information is not complete;
- (3) Volunteers view stream sites for relatively brief periods of time during the spawning season;
- (4) Determination of survey sites was based on volunteer availability and site accessibility (and some survey locations change from year to year, even on the same creek);
- (5) Spawning fish can be difficult to see and therefore may have passed through reaches undetected; and
- (6) Volunteer data indicate only where minimum fish distributions extend to, but do not indicate reaches where fish are definitively absent (in other words, the data confirms fish presence, but does not confirm absence).

Volunteers observed the following species: sockeye, chinook, coho, kokanee, and chum salmon, as well as trout species (rainbow or cutthroat). Steelhead trout were also reported but not verified. The following results were compiled from volunteer observations: (1) Coho had the widest distribution throughout the official survey area (23 streams); (2) sockeye were seen in the greatest numbers by far (over 28,000 enumerated); (3) chinook were observed in six Lake Washington basins; and (4) Kokanee observations were verified in five Lake Washington basins.

Maps included in this report have been published on the Internet, and can be found using the hyperlinks on this web page: <http://dnr.metrokc.gov/wlr/waterres/salmon/maps.htm>

Acknowledgements

Many thanks to all the dedicated volunteers for spending many hours in cold and wet weather to collect the information for this report—sometimes for the sixth year in a row, and sometimes without ever seeing a single fish. Without the volunteers there would be no data, no maps, no report. They help make a positive difference here in the Northwest, not only by reporting fish species, but by acting as the eyes and ears of the streams, reporting stream blockages as well as illegal and other suspect activities. You are true stewards of the resources that make the Pacific Northwest so special. A *huge* Thank You!

We also want to acknowledge the various individuals from the cooperating jurisdictions. Every year these folks meet and plan the program, organize and stage the training sessions, and invest lots of time attending to the questions of the volunteers. Thanks (in no particular order) to Roger Kelley, Laura Reed, Bob Spencer, Debra Crawford, Scott Gonsar, Peter Holte, Carla Milesi, Laurie Devereaux, Chrys Bertolotto, Maureen Meehan, Jim Mattila, Kit Paulsen, Robert Fuerstenberg, Gino Luchetti, Ruth Schaefer, Katie Sauter, Jessica Kuchan, and Katy Vanderpool.

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Introduction

The Salmon Watcher Program is a volunteer program that originated in 1996 and whose purpose is to record observations of adult fall-spawning salmonids. Through the program, volunteers are recruited and trained to identify and watch for spawning salmon throughout the Lake Washington Watershed and on Vashon Island (Figure 1). Regional agencies who participate in the Salmon Watcher Program along with King County include the Bellevue Stream Team, Snohomish County Surface Water Management, and the cities of Bothell, Issaquah, Kirkland, Redmond, Renton, Seattle, and Woodinville.

The Salmon Watcher Program was initiated to expand on current efforts undertaken by resource agencies to document the distribution of spawning salmon in the Lake Washington Watershed. Basins that comprise the Lake Washington Watershed include Bear Creek, Cedar River, East Lake Washington, West Lake Washington, Issaquah Creek, North Lake Washington, East Lake Sammamish, and West Lake Sammamish. In 2001, Central Puget Sound drainages were observed as part of the Salmon Watcher Program, but in 2002, of the Central Puget Sound area, only Vashon Island was officially part of the program.

Salmon Watcher volunteers annually collect information on the presence of fall-spawning salmonids, including chinook, coho, sockeye, kokanee (resident form of sockeye), and chum salmon, as well as steelhead and resident trout species. Data of this type become more important as salmonids in the region, such as Puget Sound chinook, are listed under the Endangered Species Act.

Because volunteers do this work, this task is accomplished with reduced resources, and the watersheds' residents can become involved and educated at the same time. Further, interactions with agency personnel foster positive relationships between the public and government agencies. With monetary and temporal constraints of agency personnel, much of the data collected in this effort could not be collected otherwise.

In addition to summaries of fish observed during the fall season, this 2002 report contains information about the activity of the volunteers. It should be noted that this report summarizes data collected only by Salmon Watcher volunteers, and it is therefore in no way intended to be an exhaustive report of fish distribution in the Lake Washington Watershed or Central Puget Sound. Other fish surveys are conducted annually by county, state, city, and federal agencies and non-profit organizations. For example, surveys have been conducted by volunteers or County staff to look specifically for kokanee and chinook; the results of these surveys are reported separately and are not included here.

Figure 1. Basins surveyed for the 2002 Salmon Watcher Program (see insert).

Methods

Volunteers¹ were recruited during the summer and early fall of 2002 to observe fish in streams throughout the Lake Washington Watershed² and streams on Vashon Island. The 151 volunteers (151 individuals or pairs, totaling 176 people plus 2 classrooms) who surveyed in the Lake Washington Watershed and Vashon, plus 21 people who observed outside the project area, are listed in Table 1.

Table 1. Volunteer observers for the 2002 Salmon Watcher Program.

| | | |
|----------------------------|-------------------------|-------------------------------|
| Ann Aagaard | Bill Conner | Lois Hudson |
| Mark & Sherry Abbott | Deb Crawford | Ruth Ihlenfeldt |
| Susan Adamson | Brian Cummins | Marc Imlay |
| Staci Adman | Nancy Daar | Al Jackson |
| Leonardo Amorelli | James & Edna Dam | Barbara Johns |
| Dennis Anderson | Sarah Dammrose | Dennis Johnson |
| Suzanne Anderson | Carolyn Davids | Barbara Jurgens |
| Jill & Murray Andrews | Carol Davis | Monika Kaetz |
| Chad Armour | Noah Davis | Pam Kelly |
| Russ Atkins | Stacey DeAmicis | Kate Klein |
| Frank Backus | Alyse & Dennis DeKraker | Donna Klemka |
| Larry Ball | Paula DeLucia | Cheryl Klinker |
| Jeannette Banobi | Alix Despard | Janusz Komorowski |
| Ed Barnes | Barbara Dickson | Sharon Kunz |
| Cathleen Barry | Chuck Dolan | Yvonne & Joel Kuperberg |
| Jim & JoAnn Beaumont | V. & Edward Dougherty | Ann Kurtz |
| Jean & Pete Belits | Gary & Bob Emerson | Wayne Lamm |
| Bryant Bickmore | Mike Erickson | Dierdre Larson & Meg Mathis |
| Kai Billmaier | Zack Fabish | Michael Laurie |
| Gene Bisbee | Sara & Richard Farmer | June Lauritzen |
| Sara Bogard | Mary Ellen Flanagan | Lynne Lew |
| Liz Bohlin | Sybille Fleischmann | Ginny Lodwig |
| Cathy Bohlke | Carla & Dinei Florencio | Steve Long |
| Mamie & Chuck Bolender | Ana Foukimoana | Odin Lonning & Ann Stateler |
| Sherry Bottoms & Liz Lewis | William "David" Fry | Josh Luehmann |
| Lee Bowen | Michel Gallegos | Barbara Lynum |
| Margie Bradley | Janet Germeraad | Ron Marshall |
| Brian Brenno | Linda Gonzalez | Mark Martino & Colleen Cullen |
| Janet Broadus | John & Sally Gummesson | Mike Mason |
| Robin Buerki | George Hadley | Jim McRoberts |
| Carolyn Burkhardt | Jaecob Hageman | Louis & Adrienne Mendoza |
| Tracy Bury | Harbor School | Susan Meyer |
| Gene Buzzelli | Jim Hearn | Alan Meyers |
| Earl Caditz | Heidi Hettich | Ray Mielbrecht |
| Amy Carey | Adam Hirsch | David Miller |
| Janeene Chilcoat | Kathy Hollis | Yoshihiro Monzaki |
| Rebecca Clark | Lon Hoover | Stacey Mullins-Jensen |
| Danielle Clarneaux | Tiffany Hoyopatubbi | JoAnn Napier |

¹ "Volunteers" are defined as individuals, pairs, or groups who surveyed at a given location.

² In this document, the Lake Washington Watershed means all waters draining through the Ballard Locks, and the subbasins of the Lake Washington Watershed are referred to as basins (e.g., Issaquah Creek Basin).

Table 1. Continued. Volunteer observers for the 2002 Salmon Watcher Program.

| | | |
|---------------------------------|--------------------------|-----------------------------|
| Dana & Brittney Nelson | Dick & Mary Schaetzel | Stephanie Timm |
| Jane Neubauer | Bonnie Schein | Kevin Tobin |
| Yoshiko Otonari | Ed Schein | Sue Trevathan |
| Barbara Owens | Carrie & Drew Schwitters | Alice Turner |
| Deloa Parrish | Christopher Seiber | Ann J. Van Der Geld |
| Joyce Paul | Lisa Sheets | Whitney VanLoos |
| Carolyn Peterson | Kathryn Sheldon | Reed Vawter |
| Larry Poore | Patty Shelton | Art & Elsa Vetter |
| Emily Pruiksma | Diane Slota | Anna Wahlman |
| Jo Prussia | Janis & Nicholas Smith | Tracie Walters |
| Kelly Rau | Julie Smith | Craig & Eva Weaver |
| Krista Rave-Perkins | Rebecca & Adam Smith | Doug Weber |
| David Reitz | Stephanie Smith | Beth Wieman |
| Miyoko Rokumoto & Harry Blevins | Warren Smith | Emily & Matt Williams |
| JR Rothschild | Susan & Jim Sproull | J.V. Wilson |
| Michael Russell | Kirk Stauffer | Maggie & Brian Windus |
| Kathleen Ryan | Dave Taylor | Fritz Wollett |
| Steve Saepoff | Matthew Taylor | Woodridge Elementary School |
| Caroline Schaefer | K.Terry Thorsos | Connie Wurm |

Volunteer Training

Agency staff held a total of nine classroom training sessions in 2002. Field training sessions were conducted for trained volunteers at Cottage Lake Creek, Issaquah Creek, and the Sammamish River. A field training session was also held on Vashon Island at Judd Creek. Additionally, Snohomish County and Friends of the Hylebos Wetlands held separate training sessions for their respective Salmon Watcher programs, which are off-shoots of the Lake Washington Watershed program reported herein.

All volunteers were taught to identify adult spawning salmon species with a slide presentation and lecture. The slide show was also placed on King County's web site so volunteers could review it at their convenience. During the training sessions, volunteers were asked to sign up for one or more sites to survey. They were given salmon identification materials, including color adult species identification cards and spawner timing charts. Volunteers were taught how to fill out and return data forms. Volunteers were also given a laminated card with contact information for an environmental hotline as well as numbers to call for various situations that might arise in the field, including drainage issues, fish kills, and suspicion of toxic pollutants.

Survey locations were prioritized by staff from each cooperating jurisdiction based on the need for information; however, sites were surveyed based on volunteer availability. Volunteers were assigned to stream locations near their homes or customary walking places whenever possible. Not all sites watched were prioritized by agency staff: some sites were watched because of the close proximity to a volunteer's home. Volunteers were instructed to stay on public property (bridges, parks, etc.) unless they gained permission from the landowners to enter private property or the survey location was on their own property. Figure 2 shows all the sites watched during the 2002 fall spawning season.

Figure 2. Sites in the Lake Washington Basins and Vashon Island surveyed by Salmon Watcher volunteers in 2002 (see insert).

Data Collection

Surveys were conducted between August 22, 2002, and February 17, 2003, though most surveys began in September and were concluded in December 2002. Volunteers were asked to watch at their survey sites

for at least 15 minutes, twice per week, and record any adult salmonids they observed. Actual survey frequency and duration varied greatly among volunteers: the average survey frequency was biweekly but ranged from daily to monthly.

If a volunteer surveyed the same site more than one time on the same day, the highest fish count was used; however, often more than one volunteer surveyed the same site on a single day and both counts were used. Unidentified fish were counted and described when possible. Volunteers counted all live and dead adult salmonids they observed. Volunteers were asked to report only once those dead fish observed on more than one occasion, and to note subsequent observations of the same fish in their comments.

Volunteers were asked if they could tell whether the fish they saw had an adipose fin, and they were asked if they noticed anything at their site that needed to be reported and whether they reported it. Volunteers were asked to note how many citizens they came into contact with during their streamside duties. All data were recorded onto field data forms (Appendix B), which were mailed to Salmon Watcher staff on a monthly basis.

Beginning in 2002, in addition to the data sheets, volunteers were asked to fill out a "First Fish ID" form. This form had several multiple-choice questions about various key characteristics for identifying fish. Volunteers were asked to fill one of these forms out the first time they saw a new species and to turn the forms in with their data.

Quality Assurance/Quality Control

Several means were used to assure that the data collected from volunteers were as accurate and consistent as possible during all phases of the program. Volunteers were provided with training by fish experts: data included in this report were collected either by returning volunteers or new volunteers who attended one of the training sessions for the 2002 season (most but not all returning volunteers also attended a training session in 2002 as a refresher). Volunteers were provided laminated fish identification cards and a packet of training materials with fish identification information in it. Duplicate as well as additional fish identification materials were placed on the Internet. Contact persons were made available to volunteers to answer questions and verify species identification when necessary; volunteers were encouraged to call upon these individuals if they were unsure of species identification.

Staff of the cooperating jurisdictions processed the data sheets and screened them for anything requiring immediate attention, such as an unusual fish sighting or potential water quality problems. If an unusual fish sighting was noticed on a data form, agency staff contacted the volunteer to further inquire about what characteristics they used to identify fish in an effort to ensure as much accuracy as possible. The First Fish ID forms were intended to provide another means by which fish identifications could be checked and verified. Local jurisdiction staff would also follow up on any other reported unusual circumstances as they judged appropriate.

Following data entry, the figures were verified at least once, but typically twice, by different agency staff to ensure accuracy, as well as catch anything that might need addressing. At least one of the data reviewers was familiar with the basins and the typical fish runs for the basins.

Because of the limitations of data usage from a volunteer program such as this (Limitations of Volunteer Data, page 25) and despite quality control measures, the data are intended to be used only to make preliminary evaluations of the distribution of spawning salmonids in the Lake Washington Watershed and Vashon streams. These data cannot be used to infer population structure or size.

Results and Discussion

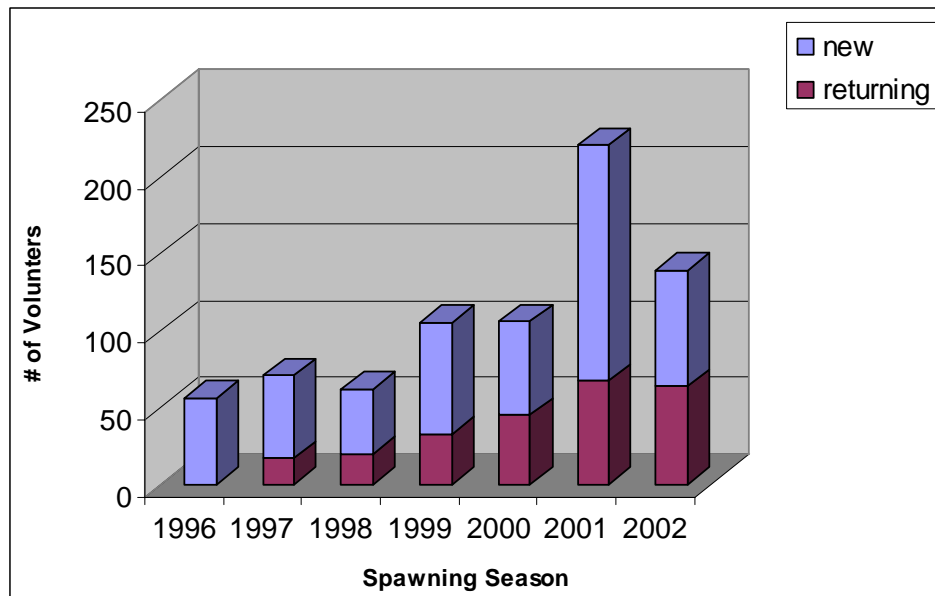
In 2002, a total of 175 sites on 66 streams were surveyed by 171 volunteers (Table 2).

Table 2. Numbers of sites, streams, and volunteers involved in the 2002 spawning season.

| Area | # sites | # streams | # volunteers |
|---------------------------|---------|-----------|--------------|
| Lake Washington Watershed | 139 | 52 | 132 |
| Vashon Island | 17 | 6 | 19 |
| Seattle | 9 | 2 | 13 |
| Other | 10 | 6 | 7 |
| Total | 175 | 66 | 171 |

In 2002, 64 out of 132 volunteers (48.48 percent) in the Lake Washington Watershed were returnees (Figure 3). Of the 64 returnees, 2 pairs of volunteers have surveyed every year of the program. On Vashon Island, 8 out of 19 volunteers (42.11 percent) were returnees.

Figure 3. Number of new and returning volunteers surveying in the Lake Washington Watershed for each year of the Salmon Watcher Program.



Basin Summary

Detailed results for each basin in the program are presented below in basin groupings. Maps are presented for each basin in the Lake Washington Watershed and Vashon Island and depict observations of sockeye, coho, chinook, kokanee, and chum identified during the survey. The streams surveyed in the Lake Washington Watershed were grouped into the following basins: Big Bear Creek, Cedar River, East Lake Washington, Issaquah Creek, North Lake Washington (split into North Lake Washington tributaries and Sammamish River tributaries), East Lake Sammamish, West Lake Sammamish, and West Lake Washington. Salmonids were observed in all basins surveyed in 2002 except the West Lake Washington Basin (in which only Taylor Creek was watched). Trout and unidentified species were not mapped.

Data include stream name and state stream numbers, as assigned by Williams et al. (1975), corresponding stream sites (with Site ID and river mile), dates of surveys, number of surveys, number of surveyors, and number of each species observed. The unique Site ID numbers that correspond with each survey site are used to distinguish the sites. Prior to the 2000 report, river mile designations (RM) were used to differentiate between survey sites. However, because ascertaining an accurate river mile for a site is sometimes difficult, and different sources of RM data present differing measurements, a site's RM may change over time as measuring techniques are refined and possible mistakes are corrected. Site ID numbers are included in this report alongside the RM. A site, with its unique ID, will always have the same data associated with it, regardless of refined RMs. Additionally, a designated site may vary a few feet from year to year: (1) if a volunteer watches on the upstream side of a bridge versus the downstream side, (2) if a new volunteer happens to watch a few yards from where a previous watcher observed, or (3) if a volunteer moves a few feet to observe in an area of better spawning habitat or visibility. These variations are inherent in the nature of this type of study. Despite the slightly fuzzy nature of these RM designations, they still give a good approximation of the relative location of one site to another.

As in 2001, chinook in 2002 were observed by volunteers in the highest numbers in the Issaquah Creek Basin, and in the second and third highest numbers in the Bear Creek Basin and North Lake Washington tributaries, respectively. Coho were observed in the highest numbers in the Bear Creek Basin. As has been the case in every year of the Salmon Watcher Program, again in 2002 sockeye were observed in the greatest numbers in the Cedar River Basin and that basin, consequently, had the most fish observed in the program area. Sockeye were observed in the second highest numbers in Bear Creek Basin, and that basin had the second most fish observed. Kokanee were seen in the highest and second highest numbers in West Lake Sammamish and the Sammamish River Tributaries, respectively. No adult spawners were observed in 27 streams surveyed, including Holder Creek, North Fork Issaquah Creek, Tibbetts Creek, Maple Leaf Creek, and Vasa Creek.

Big Bear Creek Basin

Volunteers surveyed 28 sites in 8 streams in the Big Bear Creek Basin (Figure 2). From 1 to 14 sites were watched per stream, and the total number of surveys ranged from 2 to 65 per site (Table 3). Each site was monitored by 1 to 3 volunteers.

Table 3. Stream number, site ID, site location (listed in river miles, RM), survey dates, total number of surveys, number of volunteers³, and years the sites were watched for each stream surveyed in the Big Bear Creek Basin for the 2002 spawning season.

| Stream | Stream # | Site ID | RM | Survey Dates | # Surveys | # Vols. | Years Watched |
|---------------------|----------|--------------|------|---------------|------------------------------|---------|--|
| Big Bear Creek | 080105 | 525 | .84 | 9/28 – 9/30 | 3 | 1 | 2002 |
| | | 453 | 0.9 | 9/1 – 12/31 | 47 | 2 | 2001, 2002 |
| | | 65 | 2.7 | 9/20 – 11/25 | 25 | 2 | 1997, 1998, 1999, 2000, 2002 |
| | | 290 | 3.2 | 9/26 – 11/20 | 15 | 1 | 1997, 2000, 2002 |
| | | 101 | 4.9 | 8/26 – 12/10 | 56 | 2 | 1997, 1998, 1999, 2000, 2001, 2002 |
| | | 89 | 6 | 9/1 – 12/30 | 65 | 2 | 1998, 1999, 2000, 2001, 2002 |
| | | 396 | 6.8 | 9/11 – 11/24 | 17 | 1 | 2001, 2002 |
| | | 136 | 7.4 | 9/11 – 12/26 | 52 | 3 | 1998, 1999, 2000, 2001, 2002 |
| | | 513 | 7.8 | 9/16 – 10/25 | 14 | 1 | 2002 |
| | | 503 | 7.85 | 9/20 – 12/19 | 18 | 1 | 2002 |
| | | 2 | 8.2 | 9/19 – 11/29 | 11 | 1 | 1996, 1998, 1999, 2000, 2001, 2002 |
| | | 529 | 8.7 | 9/30 – 10/31 | 10 | 1 | 2002 |
| | | 81 | 8.8 | 9/12 – 11/24 | 15 | 1 | 1998, 1999, 2000, 2001, 2002 |
| 69 | 9.3 | 9/28 – 11/20 | 18 | 1 | 1998, 1999, 2000, 2001, 2002 | | |
| Tributary | | 90 | 0.2 | 11/1 – 12/30 | 19 | 1 | 1998, 1999, 2000, 2001, 2002 |
| Cold Creek | | 465 | 0.8 | 10/14 – 11/26 | 13 | 1 | 2001, 2002 |
| Cottage Lake Cr. | 080122 | 102 | 0.6 | 9/15 – 10/26 | 12 | 1 | 1997, 1998, 2001, 2002 |
| | | 391 | 1.2 | 9/10 – 10/26 | 14 | 1 | 2000, 2001, 2002 |
| | | 105 | 1.3 | 9/21 – 10/26 | 14 | 1 | 1998, 1999, 2000, 2001, 2002 |
| | | 292 | 1.6 | 10/6 – 12/31 | 11 | 1 | 1997, 2000, 2001, 2002 |
| | | 278 | 1.9 | 9/18 – 9/30 | 6 | 1 | 1999, 2002 |
| | | 50 | 2.2 | 9/14 – 12/31 | 33 | 2 | 1997, 1999, 2000, 2001, 2002 |
| | | 103 | 2.3 | 9/24 – 9/29 | 2 | 1 | 1998, 2001, 2002 |
| | | 395 | 2.7 | 9/11 – 10/26 | 23 | 2 | 2002 |
| Trib. 0127 | 080127 | 168 | 0.1 | 9/13 – 12/30 | 29 | 3 | 1999, 2000, 2002 |
| Evans Creek | 080106 | 332 | 0.4 | 9/19 – 12/30 | 43 | 2 | 1999, 2002 |
| Mackey Creek | 080115 | 15 | 0.5 | 10/9 – 11/23 | 10 | 1 | 1996, 1997, 1998, 1999, 2000, 2001, 2002 |
| Struve Creek | 080131 | 364 | 0.3 | 9/19 – 11/13 | 13 | 2 | 1996, 2001, 2002 |

Salmonids were found in 5 of the 8 streams observed in Big Bear Creek Basin (Table 4). The most common salmonid species observed by volunteers was sockeye, which was found in Big Bear Creek (in the greatest quantity), Cottage Lake Creek, Cold Creek, and Evans Creek. Coho were seen in those same creeks as well as Tributary 0127 to Cottage Lake Creek. Kokanee were seen in Big Bear and Cottage Lake creeks. All kokanee observed in Bear Creek were seen on the same day (November 30). Chinook were reported in those two creeks as well as Tributary 0127 to Cottage Lake Creek and Evan Creek. No adult spawners were observed in Mackey or Struve creek, or in one unnamed tributary to Bear Creek..

³ “Volunteer,” when used in this context, is defined as an individual, pair, or group of people who observed a stream site for adult spawning salmonids at a given time on a given date.

Table 4. Site ID, RM, and fish counts (live and dead) with dates seen at each stream surveyed in the Big Bear Creek Basin for the 2002 spawning season.

| Stream | Site ID | RM | Chinook | Coho | Sockeye | Kokanee | Unidentified |
|-------------------------|---------|------|-----------------------|--------------------|---------------------|------------|--------------------|
| Big Bear Creek | 525 | .84 | 82 (9/28 – 9/30) | — | 116 (9/28 – 9/30) | — | — |
| | 453 | 0.9 | 12 (9/20 – 11/17) | — | 1391 (9/15 – 12/24) | 52 (11/30) | 132 (9/18 – 11/24) |
| | 65 | 2.7 | 20 (9/20 – 10/27) | 1 (10/23) | 346 (9/20 – 11/16) | — | 9 (9/26 – 10/30) |
| | 290 | 3.2 | — | — | 275 (9/26 – 11/16) | — | — |
| | 101 | 4.9 | 11 (9/24 – 10/1) | 48 (9/30 – 11/23) | 2193 (9/11 – 12/10) | — | 9 (10/21 – 11/22) |
| | 89 | 6 | 22 (9/30 – 10/26) | 11 (11/8 – 11/14) | 2500 (9/12 – 11/22) | — | 84 (9/22 – 11/14) |
| | 396 | 6.8 | 6 (9/23 – 10/1) | 13 (10/22 – 11/18) | 465 (9/17 – 11/13) | — | 30 (9/17 – 11/24) |
| | 136 | 7.4 | 6 (10/4 – 10/24) | 32 (11/15 – 11/27) | 453 (9/24 – 11/13) | — | 103 (10/8 – 12/19) |
| | 513 | 7.8 | — | 6 (10/7 – 10/8) | 207 (9/24 – 10/25) | — | — |
| | 503 | 7.85 | — | — | 56 (9/21 – 11/8) | — | 4 (11/15 – 11/18) |
| | 2 | 8.2 | — | 3 (11/13) | 78 (9/23 – 11/29) | — | — |
| | 529 | 8.7 | — | — | 89 (9/30 – 10/21) | — | 2 (10/30) |
| | 81 | 8.8 | — | 5 (11/13 – 11/24) | 125 (9/25 – 10/11) | — | 3 (10/31) |
| | 69 | 9.3 | — | 11 (11/13 – 11/20) | 141 (9/28 – 10/20) | — | — |
| Tributary | 90 | 0.2 | — | — | — | — | — |
| <i>Summary</i> | | | 159 (9/20 – 11/17) | 130 (9/30 – 11/27) | 8435 (9/11 – 12/24) | 52 (11/30) | 376 (9/17 – 12/19) |
| Cold Creek | 465 | 0.8 | — | 10 (11/13 – 11/17) | 5 (10/14 – 10/15) | — | 5 (10/14 – 10/26) |
| Cottage Lake Cr. | 102 | 0.6 | 3 (9/27) | — | 158 (9/15 – 10/26) | — | — |
| | 391 | 1.2 | — | — | — | — | 233 (9/10 – 10/26) |
| | 105 | 1.3 | 123 (9/21 – 10/20) | — | 882 (9/21 – 10/26) | 1 (10/8) | — |
| | 292 | 1.6 | 8 (10/6) | — | 67 (10/6 – 11/25) | — | — |
| | 278 | 1.9 | 1 (9/27) | — | 123 (9/18 – 9/30) | — | — |
| | 50 | 2.2 | 25 (10/4 – 11/5) | 4 (11/12 – 12/26) | 381 (9/19 – 11/5) | — | 140 (10/4 – 11/21) |
| | 103 | 2.3 | — | — | 5 (9/24 – 9/29) | — | — |
| | 395 | 2.7 | 36 (9/26 – 10/26) | — | 330 (9/17 – 10/26) | 2 (10/8) | — |
| Trib. 0127 | 168 | 0.1 | 1 (10/5) | 1 (12/16) | — | — | — |
| <i>Summary</i> | | | 197 (9/21 – 11/5) | 5 (11/12 – 12/26) | 1946 (9/15 – 11/25) | 3 (10/8) | 373 (9/10 – 11/21) |
| Evans Creek | 332 | 0.4 | 9 (9/29 – 10/8) | 3 (11/11 – 11/13) | 239 (9/19 – 10/31) | — | 15 (9/21 – 11/8) |
| Mackey Creek | 15 | 0.5 | — | — | — | — | — |
| Struve Creek | 364 | 0.3 | — | — | — | — | — |

Sockeye and coho were observed at the highest site observed in 2002, at RM 9.25. Chinook were seen as far as RM 7.4. Kokanee were observed in Big Bear Creek only as far as RM 0.9, and all 52 were observed on a single day.

Salmon Watcher volunteers viewed Cottage Lake Creek as far as RM 2.7, where chinook, sockeye, and kokanee were observed. Kokanee had not been observed by volunteers this far upstream in previous years. The kokanee observed in Cottage Lake Creek were all observed on a single day, and these sightings were not verified by a fish biologist. Coho were observed at only RM 2.2 on Cottage Lake Creek. However, one coho and one chinook were both observed at Tributary 0127, which feeds Cottage Lake (therefore upstream of Cottage Lake Creek). Neither species had been reported that far upstream in Cottage Lake Creek before by Salmon Watcher volunteers. Coho and sockeye were both observed at Cold Creek, which also empties into Cottage Lake Creek past its upstream-most site. Coho and sockeye had not been reported that far upstream in the system by volunteers previously.

One site was observed on Evans Creek at RM 0.4. Chinook, coho, and sockeye were all observed at this site. Struve Creek and Mackey Creek were also watched at one site each, but no adult spawners were observed in either creek.

The observations of sockeye, coho, chinook, and kokanee in the Big Bear Creek Basin determined from volunteer surveys in are shown in Figure 4.

Figure 4. Observations of salmonids in the Big Bear Creek Basin (see insert).

Cedar River Basin

Volunteers surveyed 14 sites in 5 streams in the Cedar River Basin in 2002 (Figure 2). From 1 to 4 sites were watched per stream, and the total number of surveys ranged from 7 to 116 per site (Table 5). Each site was monitored by either 1 or 2 volunteers.

Table 5. Stream number, site ID, site location (listed in river miles, RM), survey dates, total number of surveys, number of volunteers, and years the sites were watched for each stream surveyed in the Cedar River Basin for the 2002 spawning season.

| Stream | Stream # | Site ID | RM | Survey Dates | # Surveys | # Vols. | Years Watched |
|---------------------------------|----------|---------|-----|----------------|-----------|---------|--|
| Cedar River (Cavanaugh Pond) | 080299 | 204 | 1.8 | 9/8 – 12/31 | 17 | 1 | 1999, 2000, 2001, 2002 |
| | | 206 | 4.3 | 9/8 – 12/31 | 17 | 1 | 1999, 2001, 2002 |
| | | 207 | 5.3 | 9/25 – 12/29 | 22 | 1 | 1999, 2000, 2001, 2002 |
| | | 139 | 6.4 | 9/4 – 2/17 | 54 | 1 | 1996, 1997, 1998, 1999, 2000, 2001, 2002 |
| Madsen Creek | 080305 | 16 | 0.9 | 8/22 – 1/5/03 | 21 | 1 | 1996, 1997, 1999, 2002 |
| Peterson Creek | 080328 | 461 | 1.3 | 9/17 – 12/27 | 20 | 1 | 2001, 2002 |
| | | 25 | 1.5 | 9/17 – 12/27 | 20 | 1 | 1996, 2000, 2002 |
| Rock Creek | 080338 | 410 | 0.2 | 10/1 – 1/26/03 | 116 | 1 | 2001, 2002 |
| | | 154 | 0.4 | 9/28 – 12/31 | 104 | 2 | 1999, 2000, 2001, 2002 |
| | | 363 | 1.2 | 10/15 – 11/13 | 7 | 1 | 1996, 2001, 2002 |
| | | 49 | 1.3 | 10/01 – 12/31 | 53 | 1 | 1998, 1999, 2000, 2001, 2002 |
| Taylor Creek | 080320 | 129 | 1.2 | 10/1 – 12/31 | 92 | 1 | 1998, 1999, 2000, 2001, 2002 |
| | | 71 | 1.8 | 9/26 – 12/31 | 61 | 2 | 1998, 1999, 2000, 2001, 2002 |
| | | 126 | 2.4 | 10/1 – 12/31 | 53 | 1 | 1998, 2001, 2002 |

Chinook were observed in the Cedar River and in Rock Creek (Table 6). Coho were not observed in the Cedar River in 2002. Sockeye were found in the Cedar River and Rock Creek. No adult spawners were observed in Madsen, Taylor, or Peterson creeks.

Sockeye were seen at every site in the Cedar River that was observed in 2002. The upstream-most site watched in 2002 was Cavanaugh Pond at RM 6.4. Sockeye have been observed in Cavanaugh Pond every year of the Salmon Watcher Program. Chinook were observed in the Cedar River by volunteers as far upstream as the Jones Rd. bridge at RM 5.3, which is not as far as they had to traverse to get to Rock Creek.

The upstream-most site observed in Rock Creek was located at RM 1.3 (site 49). No fish were observed at this site. Sockeye were observed as far as site 154, RM 0.4. Although sockeye weren't seen very far up Rock Creek, noteworthy is the number of sockeye: a total of 3,147 sockeye were counted at the lowest two sites. Chinook were observed in Rock Creek for the third consecutive year of the Salmon Watcher Program; they were observed at site 410, RM 0.2.

Salmon Watcher volunteers viewed Taylor Creek as far upstream as RM 2.4, but no fish were seen at these sites. All sites in Taylor Creek and all sites but one in Rock Creek were watched by one particular

volunteer almost daily. It is noteworthy how few fish were counted despite the amount of time the volunteer logged at these stream sites.

Table 6. Site ID, RM, and fish counts (live and dead) with dates seen at each stream surveyed in the Cedar River Basin for the 2002 spawning season.

| Stream | Site ID | RM | Chinook | Coho | Sockeye | Unidentified |
|-----------------------|------------------------------------|-----|-------------------|------|------------------------|--------------|
| Cedar River | 204 | 1.8 | — | — | 742 (9/11 – 12/13) | 6 (12/31) |
| | 206 | 4.3 | — | — | 786 (9/13 – 12/31) | 1 (12/31) |
| | 207 | 5.3 | 2 (9/26 – 10/7) | — | 1452 (9/25 – 12/22) | — |
| | (Cavanaugh Pond) <i>Summary</i> | 139 | 6.4 | — | 7127 (11/19 – 2/15/03) | — |
| | | | 2 (9/26 – 10/7) | | 10107 (9/11 – 2/15/03) | 7 (12/31) |
| Madsen Creek | 16 | 0.9 | — | — | — | — |
| Peterson Creek | 461 | 1.3 | — | — | — | — |
| | 25 | 1.5 | — | — | — | — |
| Rock Creek | 410 | 0.2 | 22 (11/9 – 12/15) | — | 2996 (10/1 – 1/24/03) | — |
| | 154 | 0.4 | — | — | 151 (10/6 – 12/7) | — |
| | 363 | 1.2 | — | — | — | — |
| | 49 | 1.3 | — | — | — | — |
| Taylor Creek | 129 | 1.2 | — | — | — | — |
| | 71 | 1.8 | — | — | — | — |
| | 126 | 2.4 | — | — | — | — |

The observations of sockeye, chinook, and coho in the Cedar River Basin determined from volunteer surveys are shown in Figure 5.

Figure 5. Observations of salmonids in the Cedar River Basin (see insert).

East Lake Washington Basin

Volunteers surveyed 32 sites in 12 streams in the East Lake Washington Basin in 2002 (Figure 2). From 1 to 8 sites were watched per stream, and the total number of surveys ranged from 2 to 48 per site (Table 7). Each site was monitored by 1 to 3 volunteers.

Table 7. Stream number, site ID, site location (listed in river miles, RM), survey dates, total number of surveys, number of volunteers, and years the sites were watched for each stream surveyed in the East Lake Washington Basin for the 2002 spawning season.

| Stream | Stream # | Site ID | RM | Survey Dates | # Surveys | # Vols. | Years Watched |
|-----------------------|----------|---------|------|---------------|-----------|---------|--|
| Carillon Creek | | 475 | 0 | 9/19 – 12/29 | 34 | 2 | 2001, 2002 |
| Coal Creek | 080268 | 440 | 0.1 | 9/16 – 12/13 | 15 | 1 | 2001, 2002 |
| | | 444 | 0.2 | 9/11 – 12/26 | 32 | 1 | 2001, 2002 |
| | | 439 | 0.6 | 9/26 – 1/2/03 | 24 | 1 | 2001, 2002 |
| | | 46 | 0.8 | 9/11 – 12/14 | 27 | 2 | 1997, 1998, 1999, 2000, 2001, 2002 |
| | | 441 | 2 | 9/15 – 12/13 | 19 | 1 | 2001, 2002 |
| | | 442 | 2.1 | 8/23 – 1/5/03 | 48 | 2 | 2001, 2002 |
| | | 78 | 2.9 | 9/23 – 12/26 | 29 | 1 | 1998, 1999, 2002 |
| | | 530 | 4.1 | 10/05 – 12/15 | 5 | 1 | 2002 |
| Tributary | 080273 | 212 | 0.1 | 8/23 – 1/5/03 | 42 | 3 | 1999, 2002 |
| Forbes Creek | 080242 | 100 | 0.2 | 9/13 – 1/1/03 | 41 | 2 | 1998, 2000, 2001, 2002 |
| | | 194 | 0.9 | 9/22 – 12/26 | 23 | 1 | 2000, 2001, 2002 |
| | | 459 | 0.91 | 9/22 – 12/26 | 34 | 2 | 2002 |
| Goff Creek | 080264 | 280 | 1.3 | 9/22 – 10/25 | 7 | 1 | 1999, 2000, 2002 |
| Kelsey Creek | 080259 | 13 | 2 | 10/3 – 10/31 | 5 | 1 | 1996, 1997, 1998, 1999, 2000, 2001, 2002 |
| | | 124 | 2.4 | 9/3 – 12/30 | 27 | 1 | 1997, 1998, 1999, 2000, 2001, 2002 |
| | | 120 | 3 | 9/13 – 12/23 | 36 | 3 | 1997, 1998, 1999, 2000, 2001, 2002 |
| | | 216 | 4.4 | 10/9 – 12/20 | 10 | 1 | 1999, 2001, 2002 |
| | | 121 | 5.3 | 9/2 – 9/29 | 8 | 1 | 1998, 2001, 2002 |
| May Creek | 080282 | 208 | 0.2 | 9/19 – 12/21 | 33 | 2 | 2001, 2002 |
| | | 486 | 1.8 | 10/2 – 11/15 | 10 | 1 | 2001, 2002 |
| | | 456 | 4 | 9/19 – 12/14 | 17 | 1 | 2001, 2002 |
| Richards Creek | 080261 | 27 | 0.7 | 9/3 – 12/30 | 32 | 2 | 1997, 1998, 1999, 2000, 2001, 2002 |
| | | 80 | 1.6 | 9/25 – 10/14 | 2 | 1 | 1998, 2002 |
| Sears Creek | | 48 | 0 | 9/22 – 10/25 | 7 | 1 | 2002 |
| Sturtevant Creek | 080260 | 117 | 0.25 | 9/14 – 12/29 | 21 | 1 | 1997, 1998, 1999, 2001, 2002 |
| Valley Creek | 080266 | 220 | 0.6 | 9/21 – 10/25 | 7 | 1 | 1999, 2000, 2002 |
| | | 221 | 0.7 | 10/2 – 12/22 | 24 | 1 | 1999, 2000, 2001, 2002 |
| | | 450 | 1.7 | 10/5 – 12/30 | 30 | 1 | 2002 |
| West Trib. Kelsey Cr. | 080264 | 116 | 0.25 | 9/11 – 12/5 | 24 | 3 | 1998, 1999, 2001, 2002 |
| | | 325 | 0.7 | 9/4 – 12/29 | 33 | 1 | 1997, 2001, 2002 |
| | | 506 | 3.1 | 9/10 – 11/24 | 11 | 1 | 2002 |

Salmonids were found in 8 of the 12 streams surveyed (Table 8). The most fish were observed in the May Creek and Richards Creek systems. Chinook were observed in Richards Creek, May Creek, Kelsey Creek, and West Trib. Kelsey Creek. Sockeye were seen in Forbes, Kelsey, and May creeks. Coho were seen in Coal Creek and one of its tributaries, as well as May, Richards, Kelsey, and West Trib. Kelsey creeks. Additionally, kokanee were reported in May Creek for the first time.

Table 8. Site ID, RM, and fish counts (live and dead) with dates seen at each stream surveyed in the East Lake Washington Basin for the 2002 spawning season.

| Stream | Site ID | RM | Chinook | Coho | Sockeye | Kokanee | Unidentified |
|------------------------------|---------|------|-------------------|------------------|-------------------|------------------|-------------------|
| Carillon Creek | 475 | 0 | — | — | — | — | — |
| Coal Creek | 440 | 0.1 | — | — | — | — | — |
| | 444 | 0.2 | — | — | — | — | — |
| | 439 | 0.6 | — | — | — | — | — |
| | 46 | 0.8 | — | — | — | — | 1 (9/19) |
| | 441 | 2 | — | — | — | — | — |
| | 442 | 2.1 | — | 1 (11/23) | — | — | — |
| | 78 | 2.9 | — | — | — | — | — |
| | 530 | 4.1 | — | — | — | — | — |
| Tributary | 212 | 0.1 | — | 1 (11/24) | — | — | — |
| Forbes Creek | 100 | 0.2 | — | — | 2 (10/13 – 11/3) | — | 1 (11/15) |
| | 194 | 0.9 | — | — | — | — | — |
| | 459 | 0.91 | — | — | — | — | — |
| Goff Creek | 280 | 1.3 | — | — | — | — | — |
| Kelsey Creek | 13 | 2 | — | — | 7 (10/24) | — | — |
| | 124 | 2.4 | 1 (9/27) | — | 28 (10/4 – 10/31) | — | — |
| | 120 | 3 | — | 2 (10/31) | 5 (10/19 – 10/31) | — | 2 (10/25) |
| | 216 | 4.4 | — | — | — | — | — |
| | 121 | 5.3 | — | — | — | — | — |
| May Creek | 208 | 0.2 | 10 (10/8 – 10/23) | — | 47 (10/8 – 12/8) | 3 (11/23 – 12/8) | 19 (10/5 – 12/15) |
| | 486 | 1.8 | 1 (10/13) | 5 (10/6 – 10/16) | — | — | 4 (10/10 – 10/16) |
| | 456 | 4 | — | — | — | — | — |
| Richards Creek | 27 | 0.7 | 6 (10/27 – 10/31) | 5 (9/27 – 10/31) | 51 (10/4 – 11/3) | — | — |
| | 80 | 1.6 | 3 (10/14) | — | — | — | — |
| Sears Creek | 48 | 0 | — | — | — | — | — |
| Sturtevant Creek | 117 | 0.25 | — | — | — | — | — |
| Valley Creek | 220 | 0.6 | — | — | — | — | — |
| | 221 | 0.7 | — | — | — | — | — |
| | 450 | 1.7 | — | — | — | — | 1 (11/18) |
| West Trib. Kelsey Cr. | 116 | 0.25 | — | — | — | — | — |
| | 325 | 0.7 | 4 (10/1 – 10/11) | 1 (11/7) | — | — | 1 (9/30) |
| | 506 | 3.1 | — | — | — | — | — |

One chinook was observed in Kelsey Creek at RM 2.4 (at the junction with Richards Creek). Chinook in May Creek were observed up to RM 1.8 (off 93rd). Chinook were also observed in West Trib. Kelsey Creek at RM 0.7 (NE 1st). Chinook were observed at both sites in Richards Creek, up to RM 1.6 (SE 30th St.), which extends the chinook distribution as reported by Salmon Watchers. Sockeye were also seen at this site, and this is the most upstream they had been observed in this stream by Salmon Watchers.

No sockeye were seen in Coal Creek or West Trib. Kelsey Creek. Sockeye were seen in Forbes, Kelsey, May, and Richards creeks, but none at the upstream-most site watched. However, sockeye were observed further upstream in Richards Creek than they had been reported by volunteers in the past—they were seen as far as RM 0.7.

Coho were observed up to RM 2.1 in Coal Creek and up to RM 1.8 in May Creek. Coho were seen at RM 3.0 in Kelsey Creek (at the Kelsey Creek Farm), to RM 0.7 in Richards Creek (in Bannerwood Park), and to RM 0.7 in West Trib. Kelsey Creek (at NE 1st)—none of which were the upstream-most sites watched.

Kokanee were observed in May Creek. Kokanee had never been reported in May Creek by Salmon Watcher volunteers prior to these observations. No adult spawners were observed in Carillon Creek, Goff Creek, Sears Creek, or Sturtevant Creek.

One new site in the East Lake Washington Basin was watched further upstream than in previous years—site 450 on Valley Creek at RM 1.7. Only one unidentified fish was observed in Valley Creek on November 18, and it was at this most upstream site.

The observations of sockeye, chinook, coho, and kokanee in the East Lake Washington Basin determined from volunteer surveys are shown in Figure 6.

Figure 6. Observations of salmonids in the East Lake Washington Basin (see insert).

Issaquah Creek Basin

Volunteers surveyed 9 sites in 5 streams in the Issaquah Creek Basin in 2002 (Figure 2). From 1 to 5 sites were watched per stream, and the total number of surveys ranged from 10 to 28 per site (Table 9). Each site was monitored by 1 or 2 volunteers. Surveys took place from September through December at most sites.

Table 9. Stream number, site ID, site location (listed in river miles, RM), survey dates, total number of surveys, number of volunteers, and years the sites were watched for each stream surveyed in the Issaquah Creek Basin for the 2002 spawning season.

| Stream | Stream # | Site ID | RM | Survey Dates | # Surveys | # Vols. | Years Watched |
|------------------------|----------|---------|------|--------------|-----------|---------|------------------------------------|
| East Fork Issaquah Cr. | 080183 | 6 | 3.2 | 9/26 – 12/27 | 28 | 2 | 1996, 1997, 1999, 2000, 2001, 2002 |
| Holder Creek | 080178 | 127 | 1.4 | 9/25 – 12/31 | 21 | 2 | 1998, 1999, 2001, 2002 |
| Issaquah Creek | 080178 | 272 | 1.25 | 9/25 – 12/27 | 28 | 1 | 2001, 2002 |
| | | 397 | 2.3 | 9/5 – 11/30 | 23 | 1 | 2001, 2002 |
| | | 457 | 2.4 | 10/4 – 11/17 | 10 | 1 | 2001, 2002 |
| | | 59 | 3.3 | 9/16 – 12/9 | 21 | 1 | 1997, 1998, 2000, 2001, 2002 |
| | | 83 | 4.5 | 9/18 – 11/26 | 16 | 1 | 1998, 1999, 2001, 2002 |
| N. Fork Issaquah Cr. | 080181 | 58 | 0.6 | 9/26 – 12/27 | 24 | 1 | 1998, 1999, 2001, 2002 |
| Tibbetts Creek. | 080169 | 455 | 1.4 | 9/29 – 12/12 | 14 | 1 | 2001, 2002 |

Salmonids were reported in two of the five streams observed: East Fork Issaquah and Issaquah creeks (Table 10). Chinook, coho, and sockeye were all seen in Issaquah Creek. Only two coho were seen in East Fork Issaquah Creek.

Chinook and sockeye were observed at almost all sites watched in Issaquah Creek, including the uppermost site at RM 4.5 (at the Sycamore bridge). Coho were observed at every site in Issaquah Creek except for the most upstream; there were observed up to RM 3.3 (Clark Street).

Only one site was watched in East Fork Issaquah Creek Holder Creek, North Fork Issaquah Creek, and Tibbetts Creek. Two coho were seen on one day (November 21) at the site on East Fork Issaquah Creek (RM 3.2; near the High Point exit). No adult spawners were observed in these other creeks.

Table 10. Site ID, RM, and fish counts (live and dead) with dates seen at each stream surveyed in the Issaquah Creek Basin for the 2002 spawning season.

| Stream | Site ID | RM | Chinook | Coho | Sockeye | Unidentified |
|-------------------------------|----------------|-----------|--------------------|-------------------|--------------------|---------------------|
| East Fork Issaquah Cr. | 6 | 3.2 | — | 2 (11/21) | — | — |
| Holder Creek | 127 | 1.4 | — | — | — | — |
| Issaquah Creek | 272 | 1.25 | 135 (9/25 – 10/29) | 12 (11/8 – 11/21) | 74 (9/26 – 11/8) | 58 (9/25 – 12/9) |
| | 397 | 2.3 | 173 (9/5 – 10/27) | 7 (9/30 – 11/3) | 66 (9/30 – 11/30) | |
| | 457 | 2.4 | 75 (10/4 – 10/28) | 8 (10/14 – 11/7) | 27 (10/4 – 11/7) | 44 (10/11 – 11/17) |
| | 59 | 3.3 | 75 (9/16 – 10/25) | 8 (12/6 – 12/9) | 4 (9/24) | 37 (9/25 – 11/23) |
| | 83 | 4.5 | 52 (9/18 – 11/4) | — | 1 (10/29) | 1 (11/8) |
| <i>Summary</i> | | | 510 (9/5 – 11/4) | 35 (9/30 – 12/9) | 172 (9/24 – 11/30) | 140 (9/25 – 12/9) |
| N. Fork Issaquah Cr. | 58 | 0.6 | — | — | — | — |
| Tibbetts Creek. | 455 | 1.4 | — | — | — | — |

The distributions of chinook, coho, and sockeye in the Issaquah Creek Basin determined from volunteer observations are shown in Figure 7.

Figure 7. Observations of salmonids in the Issaquah Creek Basin (see insert).

North Lake Washington Tributaries

The North Lake Washington Tributaries are those streams flowing into the north end of Lake Washington (e.g., Denny, McAleer, and Thornton creeks and the Sammamish River). Volunteers surveyed 34 sites in 13 streams in 2002 (Figure 2). From 1 to 8 sites were watched per stream, and the total number of surveys ranged from 3 to 63 per site (Table 11). Most surveys began in September or October and concluded in December. Each site was monitored by 1 to 2 volunteers, except for site 196, which had 4 volunteers.

Table 11. Stream number, site ID, site location (listed in river miles, RM), survey dates, total number of surveys, number of volunteers, and years the sites were watched for each stream surveyed in the North Lake Washington Tributaries for the 2002 spawning season.

| Stream | Stream # | Site ID | RM | Survey Dates | # Surveys | # Vols. | Years Watched |
|--------------------------------|----------|---------|------|----------------|-----------|---------|------------------------------------|
| Brookside Creek | | 476 | 0.1 | 9/13 – 11/16 | 10 | 1 | 2001, 2002 |
| Denny Creek | 080228 | 5 | 0.1 | 9/16 – 12/28 | 35 | 2 | 1996, 1997, 2000, 2002 |
| | | 426 | 0.11 | 10/4 – 10/31 | 8 | 1 | 2000, 2002 |
| Juanita Creek Simonds Trib. | 080230 | 196 | 1.4 | 9/20 – 12/31 | 63 | 4 | 2000, 2001, 2002 |
| | | 390 | 1.8 | 9/19 – 12/21 | 39 | 2 | 2000, 2001, 2002 |
| | | 107 | 0.25 | 9/13 – 11/28 | 14 | 1 | 1998, 2000, 2001, 2002 |
| Little Brook Creek | 080039 | 516 | 0 | 10/6 – 1/26/03 | 14 | 1 | 2002 |
| Maple Leaf Creek | 080033 | 192 | 0.7 | 10/11 – 12/28 | 20 | 1 | 1999, 2000, 2001, 2002 |
| McAleer Creek | 080049 | 144 | 0.3 | 9/13 – 11/25 | 17 | 1 | 1997, 2001, 2002 |
| | | 498 | 0.79 | 9/13 – 12/10 | 12 | 1 | 2001, 2002 |
| | | 266 | 0.8 | 9/13 – 12/15 | 28 | 2 | 1999, 2000, 2001, 2002 |
| | | 56 | 1.1 | 9/13 – 11/22 | 13 | 1 | 1997, 1998, 1999, 2000, 2001, 2002 |
| | | 314 | 1.6 | 9/13 – 11/22 | 12 | 1 | 1997, 2000, 2001, 2002 |
| | | 315 | 2.1 | 9/13 – 11/22 | 13 | 1 | 1997, 2001, 2002 |
| Peters Creek | 080104 | 452 | 0.5 | 10/2 – 10/27 | 4 | 1 | 2002 |
| Sammamish River | 080087 | 66 | 5 | 9/12 – 12/18 | 17 | 1 | 1998, 2002 |
| | | 392 | 6.8 | 10/5 – 12/26 | 23 | 1 | 2000, 2001, 2002 |
| | | 41 | 7.3 | 10/1 – 12/29 | 25 | 1 | 1998, 1999, 2001, 2002 |
| | | 508 | 9.4 | 9/20 – 12/19 | 23 | 1 | 2002 |
| | | 454 | 11.4 | 9/20 – 9/29 | 3 | 1 | 2002 |
| | | 42 | 11.5 | 9/13 – 12/18 | 20 | 1 | 1998, 2002 |
| | | 271 | 12.5 | 9/28 – 12/20 | 25 | 2 | 1997, 1999, 2001, 2002 |
| | | 29 | 13.5 | 10/8 – 12/23 | 18 | 1 | 1996, 1999, 2001, 2002 |
| Trib 0141 to Samm R. | 080141 | 353 | 0.3 | 9/19 – 12/28 | 27 | 1 | 1999, 2000, 2001, 2002 |
| | | 355 | 0.35 | 9/19 – 12/28 | 29 | 1 | 1999, 2000, 2001, 2002 |
| Thornton Creek | 080030 | 183 | 0.1 | 9/11 – 12/2 | 16 | 1 | 1997, 2000, 2001, 2002 |
| | | 184 | 0.2 | 10/2 – 12/12 | 21 | 1 | 1999, 2000, 2001, 2002 |
| | | 186 | 0.9 | 10/3 – 12/31 | 30 | 1 | 1997, 1999, 2000, 2001, 2002 |
| | | 386 | 1.10 | 10/3 – 12/26 | 28 | 2 | 2002 |
| | | 526 | 1.2 | 10/3 – 12/31 | 22 | 1 | 2002 |
| | | 527 | 2.1 | 10/3 – 11/19 | 11 | 1 | 2002 |
| | | 528 | 2.8 | 10/10 – 12/29 | 29 | 1 | 2002 |
| Willow Creek | 080102 | 507 | 0.1 | 10/2 – 12/16 | 16 | 1 | 2002 |
| Woodin Creek | | 228 | 0.3 | 9/18 – 12/18 | 19 | 1 | 1999, 2002 |

Salmonids were found in 6 of the 13 streams surveyed in the North Lake Washington Tributaries (Table 12). Chinook were seen in McAleer Creek and the Sammamish River. Sockeye were observed in Denny Creek, McAleer Creek, and the Sammamish River. Coho were observed in these same creeks as well as

Thornton and Juanita creeks. Five kokanee were seen on one day in the Sammamish River. No salmonids were seen in Brookside Creek, Little Brook Creek, Simonds Tributary, Maple Leaf Creek, Tributary 0141 to the Sammamish River, Willow Creek, or Woodin Creek.

Table 12. Site ID, RM, and fish counts (live and dead) with dates seen at each stream surveyed in the North Lake Washington Tributaries for the 2002 spawning season.

| Stream | Site ID | R M | Chinook | Coho | Sockeye | Kokanee | Unidentified |
|----------------------|---------|------|--------------------|--------------------|--------------------|-----------|-------------------|
| Brookside Creek | 476 | 0.1 | — | — | — | — | — |
| Denny Creek | 5 | 0.1 | — | 3 (10/14 – 11/18) | — | — | 2 (10/28 – 11/13) |
| | 426 | 0.11 | — | — | 1 (10/28) | — | 1 (10/16) |
| Juanita Creek | 196 | 1.4 | — | 1 (11/12) | — | — | — |
| | 390 | 1.8 | — | — | — | — | — |
| Simonds Trib. | 107 | 0.25 | — | — | — | — | — |
| Little Brook Creek | 516 | 0 | — | — | — | — | — |
| Maple Leaf Creek | 192 | 0.7 | — | — | — | — | — |
| McAleer Creek | 144 | 0.3 | — | — | 3 (10/5 – 10/24) | — | — |
| | 498 | 0.79 | — | — | — | — | — |
| | 266 | 0.8 | — | — | — | — | — |
| | 56 | 1.1 | — | — | 8 (10/6) | — | 1 (11/22) |
| | 314 | 1.6 | — | — | — | — | — |
| | 315 | 2.1 | 1 (11/22) | 1 (11/16) | 2 (11/16) | — | — |
| <i>Summary</i> | | | 1 (11/22) | 1 (11/16) | 13 (10/5 – 11/16) | — | 1 (11/22) |
| Peters Creek | 452 | 0.5 | 12 (10/2 – 10/27) | — | — | — | — |
| Sammamish River | 66 | 5 | — | — | 11 (9/13 – 10/21) | — | — |
| | 392 | 6.8 | — | — | — | — | — |
| | 41 | 7.3 | 31 (10/6 – 11/24) | — | 238 (10/1 – 12/1) | — | — |
| | 508 | 9.4 | 123 (9/20 – 10/21) | 22 (10/14 – 12/5) | 406 (9/20 – 12/5) | 5 (11/27) | 11 (9/26 – 12/5) |
| | 454 | 11.4 | 4 (9/20 – 9/22) | — | 87 (9/20 – 9/22) | — | — |
| | 42 | 11.5 | — | 3 (9/18 – 12/14) | 236 (9/13 – 11/22) | — | 14 (9/13 – 11/27) |
| | 271 | 12.5 | — | 12 (10/21 – 11/12) | 69 (10/6 – 10/26) | — | — |
| | 29 | 13.5 | 3 (10/8 – 10/10) | — | 1 (11/3) | — | 9 (10/16 – 12/15) |
| <i>Summary</i> | | | 161 (9/20 – 11/24) | 37 (9/18 – 12/14) | 1048 (9/13 – 12/5) | 5 (11/27) | 34 (9/13 – 12/15) |
| Trib 0141 to Samm R. | 353 | 0.3 | — | — | — | — | — |
| | 355 | 0.35 | — | — | — | — | — |
| Thornton Creek | 183 | 0.1 | — | 2 (10/15 – 10/25) | — | — | — |
| | 184 | 0.2 | — | — | — | — | — |
| | 186 | 0.9 | — | — | — | — | — |
| | 386 | 1.10 | — | — | — | — | — |
| | 526 | 1.2 | — | 3 (10/25 – 10/28) | — | — | — |
| | 527 | 2.1 | — | — | — | — | — |
| | 528 | 2.8 | — | — | — | — | — |
| Willow Creek | 507 | 0.1 | — | — | — | — | — |
| Woodin Creek | 228 | 0.3 | — | — | — | — | — |

As in 2001, 6 sites were observed in McAleer Creek in 2002. One chinook, one coho, and two sockeye were reported at the most upstream site, site 315 at RM 2.1 (Perkins and 2600 block Sockeye were also reported at two other sites. Sockeye had not been reported as far upstream as RM 2.1 in the past by volunteers.

Coho were the only species observed in Thornton Creek, which was watched as far as RM 2.8. The coho were observed as far upstream as RM 1.2. Volunteers also watched one site on Maple Leaf Creek and one site on Little Brook Creek, both tributaries to Thornton Creek. No fish were seen in Maple Leaf Creek or Little Brook Creek in 2002.

Chinook were reported in Peters Creek. These chinook observations marked the first time chinook were reported in Peters Creek; they were seen at the only site on that stream watched, at RM 0.5 (Willows Road).

Coho and sockeye were both reported in Denny Creek for the first time by Salmon Watchers. Denny Creek recently had fish ladders installed, and the observations of these fish might be directly related to the improved access.

Chinook, coho, sockeye, and kokanee were all reported in the Sammamish River. Chinook and sockeye were both reported at the most upstream site, at Marymoor Park. The five kokanee were all observed on November 27 at RM 9.4 (116th St.). Some chinook were reported in late November, a time of year they are not as likely to be there; nonetheless, chinook are in that system, and reports from earlier in the season are likely reliable.

Only one fish, a coho, was observed in Juanita Creek. The coho was reported on November 12 at the lowest site watched in Juanita Creek—site 196, at RM 1.4 (NE 129th Pl.). No adult salmonids were observed at the only site watched in the Simonds Tributary to Juanita Creek.

No adult spawners were observed in Brookside Creek, Little Brook Creek, Maple Leaf Creek, Tributary 0141 to Sammamish River, Willow Creek, and Woodin Creek.

The distribution of chinook, coho, sockeye, and kokanee in the North Lake Washington Tributaries determined from volunteer observations in 2002 are shown in Figure 8.

Figure 8. Observations of salmonids in the North Lake Washington Tributaries (see insert).

Sammamish River Tributaries

The Sammamish River Tributaries are those streams flowing into the Sammamish River from waters originating in Snohomish County⁴ (Little Bear, North, and Swamp creeks; Big Bear Creek is discussed separately above). Volunteers surveyed 15 sites on 4 Sammamish River tributaries in 2002 (Figure 2). From 1 to 7 sites were watched per stream, and the total number of surveys ranged from 11 to 35 per site (Table 13). Each site was monitored by 1 to 3 volunteers.

Table 13. Stream number, site ID, site location (listed in river miles, RM), survey dates, total number of surveys, number of volunteers, and years the sites were watched for each stream surveyed in the Sammamish River Tributaries for the 2002 spawning season.

| Stream | Stream # | Site ID | RM | Survey Dates | # Surveys | # Vols. | Years Watched |
|--------------------|----------|---------|------|---------------|-----------|---------|------------------------------|
| Little Bear Creek | 080080 | 114 | 0 | 9/17 – 11/27 | 12 | 2 | 1999, 2001, 2002 |
| | | 67 | 0.2 | 9/11 – 11/30 | 35 | 2 | 1997, 1998, 1999, 2001, 2002 |
| | | 175 | 0.3 | 10/14 – 12/19 | 20 | 1 | 1997, 2000, 2002 |
| | | 176 | 1.3 | 9/11 – 12/18 | 24 | 1 | 1997, 2000, 2001, 2002 |
| | | 312 | 1.5 | 8/31 – 10/26 | 11 | 1 | 1997, 2002 |
| | | 14 | 1.9 | 9/11 – 11/24 | 20 | 1 | 1999, 2000, 2002 |
| | | 231 | 3.2 | 9/11 – 12/28 | 29 | 1 | 1997, 1999, 2000, 2002 |
| Little Swamp Creek | | 505 | 0.24 | 10/4 – 12/30 | 19 | 1 | 2002 |
| North Creek | 080070 | 112 | 0.9 | 9/30 – 11/22 | 14 | 1 | 1998, 1999, 2000, 2001, 2002 |
| | | 408 | 0.95 | 9/22 – 12/16 | 31 | 3 | 2000, 2001, 2002 |
| | | 483 | 1.4 | 9/4 – 12/3 | 20 | 1 | 2002 |
| | | 255 | 1.8 | 9/16 – 12/17 | 17 | 1 | 1999, 2000, 2001, 2002 |
| | | 251 | 10 | 10/3 – 12/26 | 13 | 1 | 1999, 2000, 2002 |
| Swamp Creek | 080059 | 34 | 0.3 | 9/26 – 12/30 | 28 | 3 | 1996, 1997, 1999, 2000, 2002 |
| | | 350 | 1.4 | 9/12 – 11/29 | 11 | 1 | 1999, 2002 |

Salmonids were found in 3 of the 4 streams surveyed (Table 14). Sockeye were the most commonly seen species in the Sammamish River Tributaries. They were observed in Little Bear, North, and Swamp creeks. Chinook and kokanee were observed in Little Bear and North creeks. Coho were reported in Little Bear and Swamp creeks. No fish were observed in Little Swamp Creek, which was observed for the first time in 2002.

A new site was established on Little Swamp Creek, which is a tributary to Swamp Creek. No fish were observed at this site, which is about a quarter mile upstream of the confluence with Swamp Creek. Two sites were watched in Swamp Creek, and sockeye were observed at both of them. Coho were observed at only the lower site, at RM 0.3 (near Bothell Way).

Chinook, coho, sockeye, and kokanee were all observed in Little Bear Creek. Sockeye were observed as far as the upstream-most site surveyed, RM 3.2 (228th St. SE). Chinook were observed at only one site, RM 1.5 (NE 195th St.). Coho were observed up to RM 1.9 (NE 205th St.). Kokanee were observed at two sites, as far upstream as RM 1.5.

Chinook, sockeye, and kokanee were all reported in North Creek. The two chinook observed were seen on September 27 at RM 0.95 (downstream a bit from North Creek Parkway near NE 195th). Sockeye were

⁴ Data reported herein from sites located in Snohomish County may also be reported by the Snohomish County Salmon Watcher Program.

observed up to RM 1.8. Kokanee were observed up to RM 1.4. No fish were observed at site 251, the most upstream site surveyed in North Creek, at RM 10 (McCollum Park).

Table 14. Site ID, RM, and fish counts (live and dead) with dates seen at each stream surveyed in the Sammamish River Tributaries for the 2002 spawning season.

| Stream | Site ID | RM | Chinook | Coho | Sockeye | Kokanee | Unidentified |
|--------------------|---------|------|------------------|-------------------|--------------------|--------------------|--------------------|
| Little Bear Creek | 114 | 0 | — | 1 (11/11) | 270 (9/17 – 11/11) | — | 3 (11/7) |
| | 67 | 0.2 | — | 2 (11/24) | 276 (9/19 – 11/24) | 75 (11/13 – 11/30) | 15 (11/11 – 11/21) |
| | 175 | 0.3 | — | — | 143 (10/14 – 12/3) | — | — |
| | 176 | 1.3 | — | — | 444 (9/11 – 11/9) | — | 2 (9/11 – 9/30) |
| | 312 | 1.5 | 3 (10/2 – 10/26) | 5 (10/20 – 10/26) | 73 (8/31 – 10/26) | 6 (9/22 – 10/5) | 1 (9/22) |
| | 14 | 1.9 | — | 2 (10/5 – 10/20) | 292 (9/11 – 11/9) | — | — |
| | 231 | 3.2 | — | — | 978 (9/11 – 12/2) | — | 2 (11/25 – 11/28) |
| <i>Summary</i> | | | 3 (10/2 – 10/26) | 10 (10/5 – 11/24) | 2476 (8/31 – 12/3) | 81 (9/22 – 11/30) | 23 (9/11 – 11/28) |
| Little Swamp Creek | 505 | 0.24 | — | — | — | — | — |
| North Creek | 112 | 0.9 | — | — | 49 (9/30 – 10/28) | — | 14 (10/25 – 11/22) |
| | 408 | 0.95 | 2 (9/27) | — | 339 (9/22 – 11/14) | 62 (11/14 – 12/16) | 19 (9/27 – 11/22) |
| | 483 | 1.4 | — | — | 123 (9/28 – 11/5) | 44 (11/1 – 12/3) | 1 (12/3) |
| | 255 | 1.8 | — | — | 80 (10/1 – 10/28) | — | 17 (9/26 – 12/9) |
| | 251 | 10 | — | — | — | — | — |
| <i>Summary</i> | | | 2 (9/27) | — | 591 (9/22 – 11/14) | 106 (11/1 – 12/16) | 51 (9/26 – 12/9) |
| Swamp Creek | 34 | 0.3 | — | 40 (10/15 – 12/3) | 1 (10/4) | — | 8 (10/29 – 11/15) |
| | 350 | 1.4 | — | — | 5 (10/16 – 10/27) | — | — |

The distributions of chinook, coho, sockeye, and kokanee in the Sammamish River Tributaries determined from volunteer observations are shown in Figure 9.

Figure 9. Observations of salmonids in the Sammamish River Tributaries (see insert).

West Lake Sammamish Basin

Volunteers surveyed 4 sites on 2 streams in the West Lake Sammamish Basin (Table 15). Two sites were watched per stream, and the total number of surveys ranged from 10 to 25 per stream. Each site was monitored by 1 volunteer.

Table 15. Stream number, site ID, site location (listed in river miles, RM), survey dates, total number of surveys, number of volunteers, and years the sites were watched for each stream surveyed in the West Lake Sammamish Basin for the 2002 spawning season.

| Stream | Stream # | Site ID | RM | Survey Dates | # Surveys | # Vols. | Years Watched |
|-------------|----------|---------|------|---------------|-----------|---------|------------------------------|
| Lewis Creek | 080162 | 327 | 0.05 | 9/29 – 12/30 | 25 | 1 | 1997, 2001, 2002 |
| | | 283 | 0.5 | 9/29 – 12/30 | 25 | 1 | 1999, 2001, 2002 |
| Vasa Creek | 080156 | 323 | 0 | 10/12 – 12/28 | 10 | 1 | 1997, 2001, 2002 |
| | | 39 | 0.5 | 10/3 – 11/26 | 16 | 1 | 1996, 1999, 2000, 2001, 2002 |

Salmonids were found in 1 of the 2 streams surveyed (Table 16). Kokanee were observed in Lewis Creek. Kokanee were observed at both sites watched on Lewis Creek, up to RM 0.5 (West Lake Sammamish Pkwy.). The only other fish reported in Lewis Creek was an unidentified species, and was also observed at RM 0.5. No fish were reported in Vasa Creek in 2002.

Table 16. Site ID, RM, and fish counts (live and dead) with dates seen at each stream surveyed in the Sammamish River Tributaries for the 2002 spawning season.

| Stream | Site ID | RM | Kokanee | Sockeye | Unidentified |
|-------------|---------|------|---------------------|---------|--------------|
| Lewis Creek | 327 | 0.05 | 38 (11/17 – 12/30) | — | — |
| | 283 | 0.5 | 169 (11/17 – 12/23) | — | 1 (12/15) |
| Vasa Creek | 323 | 0 | — | — | — |
| | 39 | 0.5 | — | — | — |

West Lake Washington Basin

Volunteers surveyed 2 sites on Taylor Creek in the West Lake Washington Basin (Figure 2). The total number of surveys ranged from 6 to 32 per site (Table 17). Site 223 was monitored by 2 volunteers and site 225 was monitored by one volunteer. No fish were observed in this stream.

Table 17. Stream number, site ID, site location (listed in river miles, RM), survey dates, total number of surveys, number of volunteers, and years the sites were watched for each stream surveyed in the West Lake Washington Basin for the 2002 spawning season.

| Stream | Stream # | Site ID | RM | Survey Dates | # Surveys | # Vols. | Years Watched |
|--------------|----------|---------|-----|--------------|-----------|---------|---------------|
| Taylor Creek | — | 223 | 0.1 | 9/1 – 12/29 | 32 | 2 | 2001, 2002 |
| | | 225 | 0.3 | 9/1 – 12/26 | 6 | 1 | 1999, 2002 |

Vashon Island

Volunteers surveyed 17 sites in 6 streams on Vashon Island in 2002 (Figure 2). From 1 to 6 sites were watched per stream, and the total number of surveys ranged from 5 to 37 per site (Table 18). Most sites were monitored by 1 or 2 volunteers, except for one site that had 3 volunteers.

Table 18. Stream number, site ID, site location (listed in river miles, RM), survey dates, total number of surveys, number of volunteers, and years the sites were watched for each stream surveyed on Vashon Island for the 2002 spawning season.

| Stream | Stream # | Site ID | RM | Survey Dates | # Surveys | # Vols. | Years Watched |
|--------------------|----------|---------|------|-----------------|-----------|---------|---------------|
| Christensen Creek | | 497 | 0 | 10/19 – 12/30 | 24 | 2 | 2001, 2002 |
| Fisher Creek | 150140 | 485 | 0.1 | 10/31 – 1/4/03 | 11 | 1 | 2001, 2002 |
| Gorsuch Creek | | 531 | 0 | 10/12 – 10/28 | 5 | 1 | 2002 |
| | | 532 | 0.5 | 10/15 – 11/19 | 8 | 1 | 2002 |
| | | 533 | 0.5 | 10/15 – 11/19 | 9 | 1 | 2002 |
| Judd Creek | 150129 | 500 | 1.2 | 10/20 – 12/27 | 16 | 1 | 2001, 2002 |
| | | 540 | 1.23 | 10/15 – 12/28 | 15 | 1 | 2002 |
| | | 492 | 1.25 | 10/15 – 12/28 | 14 | 1 | 2001, 2002 |
| | | 491 | 1.4 | 10/9 – 12/20 | 22 | 1 | 2002 |
| | | 535 | 1.79 | 10/18 – 12/29 | 37 | 1 | 2002 |
| | | 493 | 1.8 | 10/14 – 12/31 | 20 | 1 | 2001, 2002 |
| Judd Cr. Tributary | | 534 | 0 | 10/17 - 12/6 | 13 | 1 | 2002 |
| Shinglemill Creek | 150159 | 146 | 0 | 10/10 - 12/30 | 31 | 2 | 2001, 2002 |
| | | 147 | 0.2 | 10/23 - 12/30 | 14 | 1 | 2001, 2002 |
| | | 148 | 0.5 | 10/19 - 12/23 | 12 | 1 | 2001, 2002 |
| | | 150 | 1.1 | 10/10 - 1/18/03 | 22 | 3 | 2001, 2002 |
| | | 151 | 1.2 | 9/20 - 1/29/03 | 27 | 1 | 2001, 2002 |

Salmonids were found in 4 of the 6 streams surveyed (Table 19). No adult spawners were observed in the tributary to Judd Creek or in Gorsuch Creek, which was watched for the first time in 2002.

Coho and chum were both observed in Shinglemill Creek. Coho were seen as far as RM 0.5. Only one chum was observed, and it was seen at the mouth of the creek.

Chum were observed throughout November and December in Judd Creek, but only at one site, at RM 1.79 (this site also happened to be the most frequently watched site in Judd Creek). Coho were observed at several sites in Judd Creek, as far upstream as RM 1.8.

One coho was observed at the only site watched (at the mouth) on Christensen Creek on November 23. No other fish were observed in Christensen Creek in 2002.

Chum were observed at the only site watched on Fisher Creek (just upstream from the mouth).

The distributions of coho and chum on Vashon Island determined from volunteer observations are shown in Figure 10.

Figure 10. Observations of salmonids on Vashon Island (see insert).

Table 19. Site ID, RM, and fish counts (live and dead) with dates seen at each stream surveyed on Vashon Island for the 2002 spawning season.

| Stream | Site ID | RM | Coho | Chum | Unidentified |
|---------------------------|----------------|-----------|-------------------|--------------------|---------------------|
| Christensen Creek | 497 | 0 | 1 (11/23) | — | — |
| Fisher Creek | 485 | 0.1 | — | 5 (12/9 - 12/13) | 1 (1/4/03) |
| Gorsuch Creek | 531 | 0 | — | — | — |
| | 532 | 0.5 | — | — | — |
| | 533 | 0.5 | — | — | — |
| Judd Creek | 500 | 1.2 | 4 (11/7) | — | — |
| | 540 | 1.23 | 10 (11/9 - 11/13) | — | 4 (11/7) |
| | 492 | 1.25 | — | — | — |
| | 491 | 1.4 | — | — | 1 (11/20) |
| | 535 | 1.79 | 5 (11/8 - 11/25) | 164 (11/6 - 12/29) | 3 (11/12 - 11/24) |
| | 493 | 1.8 | 7 (11/8 - 11/12) | — | — |
| Judd Cr. Tributary | 534 | 0 | — | — | — |
| <i>Summary</i> | | | 26 (11/7 - 11/25) | 164 (11/6 - 12/29) | 8 (11/7 - 11/24) |
| Shinglemill Creek | 146 | 0 | 3 (11/17) | 1 (11/20) | 1 (12/15) |
| | 147 | 0.2 | 2 (11/6 - 11/13) | — | — |
| | 148 | 0.5 | 5 (11/13) | — | — |
| | 150 | 1.1 | — | — | — |
| | 151 | 1.2 | — | — | — |
| <i>Summary</i> | | | 10 (11/6 - 11/17) | 1 (11/20) | 1 (12/15) |

Central Puget Sound

The Central Puget Sound drainages were an official part of the Salmon Watcher Program in only 2001. Data on the Central Puget Sound streams is presented here but not analyzed at length. Some of these streams have been observed and reported on in past years. The streams with data from past years include Boeing Creek, Creek, Longfellow Creek, Miller Creek, Walker Creek, and Pipers Creek. Coho and chum were observed in all streams observed in this area except Walker Creek; only one unidentified fish was observed in Walker Creek.

Table 20. Stream number, site ID, site location (listed in river miles, RM), survey dates, total number of surveys, number of volunteers, and years the sites were watched for each stream surveyed in the Central Puget Sound for the 2002 spawning season.

| Stream | Stream # | Site ID | RM | Survey Dates | # Surveys | # Vols. | Years Watched |
|------------------|----------|---------|------|-----------------|-----------|---------|------------------------------|
| Boeing Creek | 080017 | 436 | 0.1 | 10/10 – 1/31/03 | 11 | 1 | 2000, 2001, 2002 |
| Longfellow Creek | 090360 | 177 | 0.6 | 10/13 – 10/28 | 5 | 1 | 1999, 2000, 2001, 2002 |
| | | 178 | 0.7 | 9/25 – 12/28 | 12 | 1 | 1999, 2000, 2002 |
| | | 179 | 0.8 | 10/2 – 10/23 | 6 | 1 | 1998, 1999, 2000, 2001, 2002 |
| | | 180 | 0.9 | 10/5 – 12/28 | 26 | 2 | 1999, 2000, 2001, 2002 |
| Miller Creek | 090371 | 417 | 0.1 | 10/30 – 12/30 | 28 | 1 | 2000, 2001, 2002 |
| | | 458 | 0.4 | 9/1 – 12/28 | 12 | 1 | 2001, 2002 |
| Pipers Creek | 080023 | 70 | 0 | 10/3 – 12/30 | 26 | 1 | 1999, 2000, 2001, 2002 |
| | | 181 | 0.2 | 9/14 – 10/23 | 10 | 1 | 1999, 2000, 2001, 2002 |
| | | 381 | 0.3 | 9/23 – 12/30 | 31 | 2 | 2001, 2002 |
| | | 98 | 0.4 | 9/11 – 12/28 | 53 | 3 | 1998, 1999, 2000, 2001, 2002 |
| | | 99 | 0.53 | 9/29 – 12/28 | 24 | 1 | 1999, 2002 |
| Walker Creek | | 473 | 0.13 | 9/1 – 12/28 | 12 | 1 | 2001, 2002 |

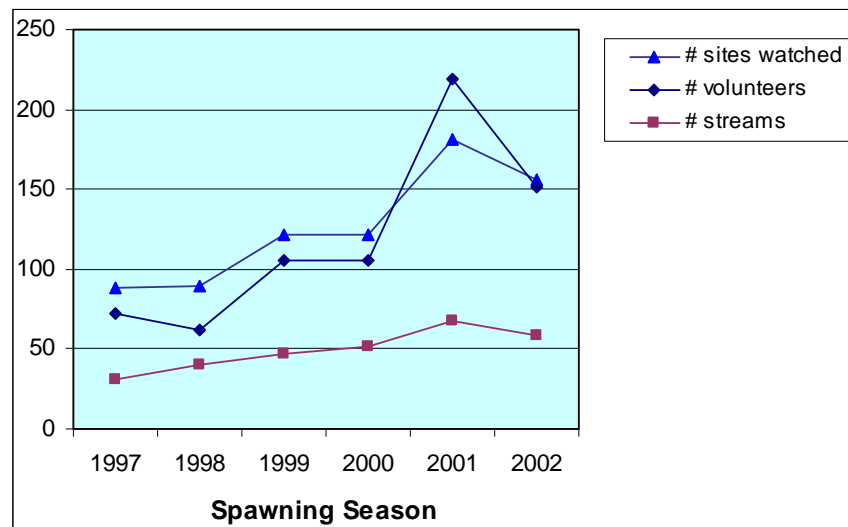
Table 21. Site ID, RM, and fish counts (live and dead) with dates seen at each stream surveyed in Central Puget Sound for the 2002 spawning season.

| Stream | Site ID | RM | Coho | Chum | Unidentified |
|------------------|---------|------|---------------------|----------------------|--------------------|
| Boeing Creek | 436 | 0.1 | 3 (12/17 - 1/10/03) | 42 (11/17 - 1/10/03) | — |
| Longfellow Creek | 177 | 0.6 | — | — | — |
| | 178 | 0.7 | — | 1 (11/17) | 7 (11/25 - 12/7) |
| | 179 | 0.8 | — | — | — |
| | 180 | 0.9 | 12 (11/9 - 12/3) | — | — |
| Miller Creek | 417 | 0.1 | 9 (11/8 - 11/19) | 1 (12/15) | 4 (11/24 - 12/10) |
| | 458 | 0.4 | — | — | 10 (12/21 - 12/28) |
| Pipers Creek | 70 | 0 | 2 (11/11 - 11/17) | 88 (11/21 - 12/30) | — |
| | 181 | 0.2 | — | — | — |
| | 381 | 0.3 | 7 (11/11 - 11/13) | 120 (11/23 - 12/30) | 3 (11/15) |
| | 98 | 0.4 | 11 (11/8 - 11/10) | 140 (11/12 - 12/28) | 1 (11/11) |
| | 99 | 0.53 | 2 (11/12) | — | — |
| <i>Summary</i> | | | 22 (11/8 - 11/17) | 348 (11/12 - 12/30) | 4 (11/11 - 11/15) |
| Walker Creek | 473 | 0.13 | — | — | 1 (11/9) |

Volunteer Activity

The number of volunteers participating in the Salmon Watcher Program increased over the first 6 years of the program but decreased somewhat in 2002 (Figure 11). The increase in the number of volunteers was fairly steady for the first 5 years, but in 2001 the number of volunteers in the program more than doubled (from 106 in 2000 to 219 in 2001). The sharp increase in 2001 and the relative decline of participants in 2002 were likely both the result of the amount of publicity the program received. In 2001, efforts at volunteer recruitment were significantly greater than in any other year, and even included interviews on local television. Additionally, 2001 was the only year that all of Puget Sound drainages were included in the program, and not including Vashon volunteers, that meant an additional 39 volunteers that were not reported before or since. Also, 16 volunteers from Vashon were new in 2001, and the number of volunteers on Vashon continues to grow.

Figure 11. Number of volunteers (defined as an individual, pair, or group) watching in the Lake Washington Watershed and Vashon Island and number of sites and streams watched from 1997⁵-2002.



⁵ Numbers for 1996 are not depicted because many volunteers walked stream reaches, whereas in all other years volunteers watched from stationary positions, and many volunteers were trained differently as part of the kokanee watcher program. In 1997, 30 streams and 16 beach sites were watched; beach sites are counted here as 1 site.

Contact with Citizens

During 2002, for the second year in a row, volunteers were asked to keep track of how many citizens they came into contact with during their time by the streams. Salmon Watcher volunteers spoke with at least 1,239 citizens during the 2002 spawning season. Types of citizen contacts ranged from passers-by in parks and along roads to horse-back riders to entire groups of school children. Table 22 details the numbers of citizens who interacted with volunteers.

Table 22. Number of citizen contacts made by all Salmon Watcher volunteers in each of the surveyed basins.

| Big Bear Creek | Vashon Island | N. Lake Wash. ¹ | Cedar River | Samm. River Tribs. | E. Lake Wash. | Green River Basin | Issaquah Creek | W. Lake Samm. | W. Lake Wash. | Snoq. River | Central Puget Sound |
|----------------|---------------|----------------------------|-------------|--------------------|---------------|-------------------|----------------|---------------|---------------|-------------|---------------------|
| 297 | 32 | 189 | 159 | 111 | 110 | 43 | 43 | 17 | 4 | 2 | 232 |

¹ Volunteers on North Lake Washington streams in Snohomish County were not asked to record citizen contacts; if any were noted on their data sheets, they were recorded, otherwise it is presumed that this number is an underestimate.

Time Spent by Volunteers

Salmon Watcher volunteers are asked to record the start and end times of each site visit. Occasionally, some volunteers forget to fill in that part of the data sheet. Nonetheless, Table 23 illustrates the approximate amount of time spent by volunteers in each basin. More than 1,330 hours were volunteered in the Lake Washington Watershed and on Vashon Island and another 36.8 hours in the Snoqualmie and Green River basins.

Table 23. Number of hours spent by Salmon Watcher volunteers in each of the surveyed basins.

| Big Bear Creek | Cedar River | Vashon | E. Lake Wash. | Green River Basin | Issaquah Creek | N. Lake Wash. | Samm. River Tribs. | Snoqualmie River | W. Lake Samm. | W. Lake Wash. | Central Puget Sound |
|----------------|-------------|--------|---------------|-------------------|----------------|---------------|--------------------|------------------|---------------|---------------|---------------------|
| 227.4 | 266.4 | 128.5 | 221 | 20.6 | 65.3 | 213.7 | 86.6 | 16.2 | 32.6 | 14.7 | 81.7 |

Limitations of Volunteer Data

Individuals, citizens' groups, non-profit organizations, and government agencies all use data from the Salmon Watcher Program for various reasons (for an extensive list of reasons, please see the report from the 2000 Salmon Watcher season, Vanderhoof 2001). However, several qualifications must be kept in mind when reviewing the data in this report and especially when using the data for any purpose other than describing fish distributions. The level of expertise of the volunteers varies widely: some volunteers have past experience identifying fish through professional or school training, recreational fishing, or personal interest. Other volunteers only learned to identify salmon from the Salmon Watcher training session.

Every year volunteers from previous years return and new volunteers enter the program who must learn to identify the different species of salmonids they might encounter in their assigned streams. For example, in 2002, 48.48 percent of Lake Washington Watershed volunteers were returnees. The variation in numbers of new versus returning volunteers each year likely has an effect on the accuracy of identification from

year to year. However, if accuracy of data is decreased because of an increase in new volunteers each year, new efforts by Salmon Watcher staff to increase the accuracy of reporting by *all* volunteers should work to offset any possible decrease and actually enhance identification every year (see “Quality Assessment/Quality Control”).

Stream surveying could not possibly occur 24 hours a day; therefore, it is possible that observations of fish did not occur that might have extended the uppermost limits of known distributions. Also, adult salmon might migrate more during the night (Brannon and Salo 1982) when volunteers do not observe. Additionally, conditions were not always favorable for sighting fish: fish may have been difficult to see from banks or bridges; fish can hide around bends or under vegetation; and fish may pass unnoticed while the volunteer is observing. High flows, turbid water, and glare make fish observation difficult (polarizing glasses are recommended, but not everyone uses them, and sometimes other conditions preclude their utility). Some species, such as coho, move upstream to their spawning locations very quickly immediately after it rains and may not be seen lower in a system at all. Other species may be very difficult to distinguish from one another, such as sockeye and kokanee. Although training sessions are thorough, identification materials are provided, and technical experts are available for help with identification, some misidentifications will occur.

It is important to keep in mind that the absence of spawner sightings in a stream does not mean that spawning salmonids are not accessing that location. It does mean that fish were not seen by the volunteer at the site at the time of survey. Because of this important distinction and the other mentioned limitations of this type of survey, data in this report should be used only to indicate the presence of adult salmon of a particular species at specific locations (species distribution). All other uses and benefits derived from the compilation of this data should be used cautiously and with the specific limitations of the data in mind. Only when fish surveys are conducted comprehensively and systematically are wider uses of such data appropriate.

Although these data may be used to help determine fish distributions, population estimates may not be derived from them for several reasons. It is difficult to compare the Salmon Watcher data from year to year because many variables in the observer methods exist between years:

- number of surveys in a stream
- survey locations along a stream
- the number of surveys at a site
- streams surveyed in a basin
- time of day spent observing
- survey frequency
- level of experience of observers
- type of survey (some surveys in 1996 were walking surveys)
- time spent at a given location
- beginning and ending dates of surveys

Because most or all of these parameters are different for every stream surveyed from 1996 through 2002, comparisons of raw data likely would not yield valid information about changes in populations. Therefore, the best use for the data is in determining presence of fish and mapping fish distribution.

Species Summary

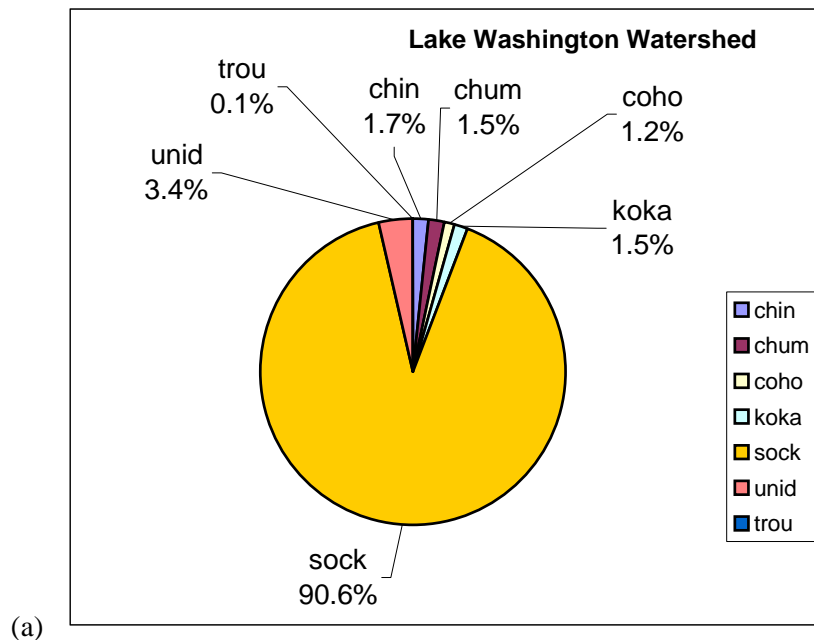
Salmon Watcher Program volunteers recorded observations of all salmonid fish located during surveys, including chinook, coho, chum, and sockeye salmon, kokanee (resident form of sockeye), and trout (which may have been cutthroat or rainbow trout). The ratios of all fish observed, including unidentified fish, is depicted in Figure 12a for the Lake Washington Watershed and 12b for Vashon Island.

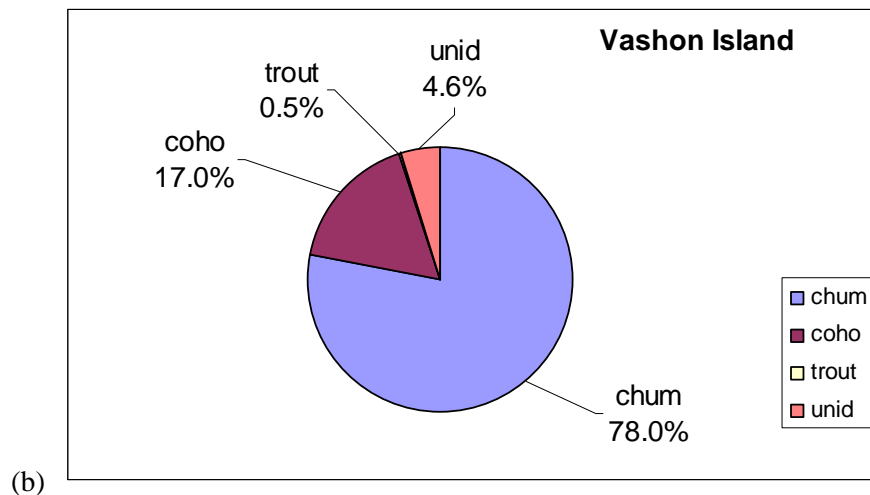
Of the 58 streams in the study area surveyed in 2002, sockeye were found in 17 streams. Coho were found in 22 streams, chinook in 16 streams, kokanee were observed in 7 streams, and trout were reported in 7 streams. Sockeye was by far the most abundant species counted by volunteers in the Lake Washington Watershed. Chum were observed in 3 streams on Vashon Island.

If a volunteer was unable to positively identify a fish species, the fish was tallied as “unidentified” (reporting a fish as unidentified was preferable to falsely identifying a species). Of the 31,493 total adult fish observed in 2002, 1,066 were unidentified (3.4 percent). Unidentified adult salmonids were counted in 22 streams.

Volunteers made note of unidentified fry and/or juvenile fish in all basins in a total of 34 streams.

Figure 12. Percentage of total fish observed in 2002 by volunteers in (a) the Lake Washington Watershed and in (b) Vashon Island.





Tagged Fish

The year 2001 marked the first year of this program that volunteers were asked to record whether they could see if a fish had its adipose fin intact. The question as posed on the data sheet (“Were you able to identify presence/absence of adipose fin?”) may have been too vague as different volunteers answered the question in different ways. The question was changed to “# of fish without adipose” for the 2002 season. It is impossible to quantitatively summarize what was observed; however, a cursory examination of responses to the question can reveal a few interesting pieces of information.

No sockeye from hatcheries in the Lake Washington Watershed had their adipose fins clipped. However, volunteers reported some sockeye without adipose fins in Bear Creek, Rock Creek, May Creek, Issaquah Creek, Little Bear Creek, and North Creek. This apparent discrepancy indicates that either the fish species was misidentified or the adipose fin was actually present, but the volunteer incorrectly reported its absence, or the adipose fin was not present because of predators or fishing gear (not as a result of being produced and released from a hatchery). A kokanee was reported missing an adipose fin, and as kokanee are not fin-clipped, the same possible explanations hold true for kokanee as they do for sockeye.

In the Lake Washington Watershed, coho missing adipose fins were found in Issaquah Creek, Thornton Creek, Swamp Creek, and Little Bear Creek. On Vashon, some coho in Shinglemill Creek were reported missing their adipose fins. Chinook missing their adipose fins were reported in Issaquah Creek and Rock Creek (in the Cedar River Basin).

Chinook Salmon

Chinook were observed in 6 basins in the study area during the 2002 surveys (Figure 13). A total of 726 live fish and 53 carcasses were found in 16 streams throughout the Lake Washington Watershed (in order of most to least fish seen): Issaquah Creek, Cottage Lake Creek, Sammamish River, Big Bear Creek, Rock Creek, Peters Creek, May Creek, Richards and Evans creeks, West Trib. Kelsey Creek, Little Bear Creek, Cedar River and North Creek, and 1 each in Tributary 0127 to Cottage Lake Creek, Kelsey Creek, and McAleer Creek.

Chinook were reported for the first time in Peters Creek, a tributary to the Sammamish River; they were seen up to RM 0.5. Chinook were reported by Salmon Watchers further upstream than in the past in Richards Creek (up to RM 1.6). Chinook were reported by Salmon Watchers further upstream than in the past in Cottage Lake Creek (up to RM 2.5); they were also seen for the first time in Cottage Lake Creek Tributary 0127, which is at RM 0.14 past Cottage Lake (therefore further yet than the sighting at RM 2.5).

The known chinook distribution as observed by Salmon Watchers in 2002 is expanded in McAleer Creek to RM 2.1 when one chinook carcass was reported; previously, the furthest upstream chinook had been seen in McAleer Creek was at RM 1.1. Chinook were observed further in Little Bear Creek than in the past. Previously, only one chinook carcass had been reported by a volunteer in Little Bear Creek (at RM 0.2); in 2002, three live chinook reported on three separate occasions were seen at RM 1.5.

Figure 13. Distribution of chinook salmon in the program area based on Salmon Watcher observations (see insert).

Sockeye Salmon

Sockeye were by far the most numerous fish counted by volunteers. Sockeye were observed in 6 basins (Figure 14). A total of 23,553 live fish and 4,773 carcasses were observed in 17 streams (in order of most to least fish seen): Cedar River, Big Bear Creek, Rock Creek, Little Bear Creek, Cottage Lake Creek, Sammamish River, North Creek, Evans Creek, Issaquah Creek, Richards Creek, May Creek, Kelsey Creek, McAleer Creek, Swamp Creek, Cold Creek, Forbes Creek, and Denny Creek. Because sockeye require a lake environment for part of their life history (Wydoski and Whitney 1979), they are not expected in Puget Sound streams, such as the streams on Vashon Island.

Sockeye were observed by Salmon Watchers for the first time in 2002 at three locations: Cold Creek (RM 0.8, near 176th Ave. NE), Forbes Creek (RM 0.2, Juanita Bay Park), and in Denny Creek (RM 0.1, Holmes Point Drive). In addition to those three streams, the known sockeye distribution as observed by Salmon Watchers in 2002 is expanded in McAleer Creek to RM 2.1 (Perkins and 2600 block), in Richards Creek to RM 1.6 (SE 30th St.), and in Cottage Lake Creek to RM 2.7 (159th).

Figure 14. Distribution of sockeye salmon in the program area based on Salmon Watcher observations (see insert).

Coho Salmon

Coho were observed in 5 Lake Washington Watershed basins and on Vashon Island (Figure 15). A total of 255 live fish and 40 carcasses were found in 20 streams in the Lake Washington Watershed (in order of most to least fish seen): Big Bear Creek, Swamp Creek, Sammamish River, Issaquah Creek, Cold Creek, Little Bear Creek, May Creek, Richards Creek, Thornton Creek, Cottage Lake Creek, Denny Creek, Evans Creek, East Fork Issaquah Creek, Kelsey Creek, Coal Creek, Juanita Creek, McAleer Creek, Trib 0127 to Cottage Lake, Tributary to Coal Creek, and West Trib. Kelsey Creek. A total of 27 live coho were found in 3 streams on Vashon Island: Judd Creek, Shinglemill Creek, Christensen Creek.

Coho were reported for the first time in Denny Creek; they were seen up to RM 0.1. Coho were reported for the first time in Christensen Creek; they were seen at the mouth of the creek. Coho were reported for the first time in Tributary 0127 to Cottage Lake Creek; they were seen at RM 0.14 (Cottage Lake Park).

The known coho distribution as observed by Salmon Watchers is expanded up by a hair in Maple Leaf Creek, to 1.2 RM (N 100th St.).

Figure 15. Distribution of coho salmon in the program area based on Salmon Watcher observations (see insert).

Kokanee

Kokanee, although not anadromous, are of interest to regional fisheries managers because their numbers appear to be depressed from historic levels. Kokanee were observed in 5 basins (Figure 16). A total of 436 live fish and 21 carcasses were found in 7 streams (in order of most to least fish seen): Lewis Creek, North Creek, Little Bear Creek, Big Bear Creek, the Sammamish River, and May and Cottage Lake creeks.

During the 2002 surveys, the known distribution of kokanee as observed by Salmon Watchers is expanded in Cottage Lake Creek to RM 2.7 and in May Creek to RM 0.2 (Lake Washington Blvd.). These kokanee observations in May Creek mark the first time kokanee had been reported by Salmon Watchers in that stream.

Figure 16. Distribution of kokanee in the program area based on Salmon Watcher observations (see insert).

Chum

On Vashon Island, a total of 135 live chum and 35 carcasses were found in 3 streams (in order of most to least fish seen): Judd Creek, Fisher Creek, and Shinglemill Creek.

Other Species

Trout were reported in 6 streams in 4 basins, including Vashon. Trout may have been cutthroat or rainbow trout. Fish of unidentified species were observed throughout the study area. The Cedar River, Sammamish River, and Little Bear Creek had the most unidentified species reported.

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- Wydoski, R., and R. Whitney. 1979. Inland Fishes of Washington. University of Washington Press, Seattle, WA.

Appendices

- A. Other Streams Outside the Program Area
- B. Data Collection Form used in 2002

Appendix A.

Other Streams Outside the Program Area

Snoqualmie Basin

Volunteers surveyed one site on a tributary to Tuck Creek and one site along the Tolt River in the Snoqualmie Basin (Table A1). Chinook, one chum, and coho were observed in this basin (Table A2).

Table A1. Stream number, site ID, site location (listed in river miles, RM), survey dates, total number of surveys, number of volunteers, and years the sites were watched for each stream surveyed in the Snoqualmie Basin for the 2002 spawning season.

| Stream | Stream # | Site ID | RM | Survey Dates | # Surveys | # Vols. | Years Watched |
|--------------------------------|----------|---------|----|---------------|-----------|---------|---------------|
| Tolt River | 070291 | 541 | | 11/9 - 1/9/03 | 6 | 1 | 2002 |
| Tributary 070272 to Tuck Creek | 070272 | 487 | 0 | 12/14 - 12/29 | 5 | 1 | 2001, 2002 |

Table A2. Site ID, RM, and fish counts (live and dead) with dates seen at each stream surveyed in the Snoqualmie River Basin for the 2002 spawning season.

| Stream | Site ID | RM | Chinook | Chum | Coho |
|--------------------------------|---------|----|--------------------|-----------|----------------------|
| Tolt River | 541 | | 601 (11/24 - 12/7) | 1 (11/24) | 364 (11/24 - 1/9/03) |
| Tributary 070272 to Tuck Creek | 487 | | — | — | 3 (12/21) |

Green/Duwamish Basin

Volunteers surveyed 4 sites on Soos Creek in the Green River Basin (Table B1). A single chinook was reported, as were chum and coho (Table B2).

Table B1. Stream number, site ID, site location (listed in river miles, RM), survey dates, total number of surveys, number of volunteers, and years the sites were watched for each stream surveyed in the for the 2002 spawning season.

| Stream | Stream # | Site ID | RM | Survey Dates | # Surveys | # Vols. | Years Watched |
|------------|----------|---------|------|--------------|-----------|---------|---------------|
| Soos Creek | 090072 | 519 | 7.1 | 9/25 - 12/31 | 13 | 2 | 2002 |
| | | 520 | 7.3 | 9/25 - 12/28 | 14 | 2 | 2002 |
| | | 521 | 8.2 | 9/25 - 12/26 | 24 | 1 | 2002 |
| | | 522 | 10.7 | 10/5 - 12/26 | 18 | 1 | 2002 |

Table B2. Site ID, RM, and fish counts (live and dead) with dates seen at each stream surveyed in the Snoqualmie River Basin for the 2002 spawning season.

| Stream | Site ID | RM | Chinook | Chum | Coho | Unidentified |
|------------|---------|------|-----------|-------------------|--------------------|--------------------|
| Soos Creek | 519 | 7.1 | — | — | — | — |
| | 520 | 7.3 | — | — | 1 (11/23) | — |
| | 521 | 8.2 | 1 (11/13) | — | 10 (11/13 - 12/11) | 1 (11/11) |
| | 522 | 10.7 | — | 3 (12/22 - 12/26) | 11 (11/13 - 12/26) | 11 (11/13 - 11/17) |

Appendix B.
Data Collection Form used in 2002

Salmon Watcher - Monthly Data Collection Form

Month/Year _____/2002

Location Observed / Site ID# _____

Name _____ Email or phone _____

Stream Name _____

AFFIX LABEL HERE

1. Fill out this form in pencil as your observations are made. EVEN IF YOU DON'T SEE ANY FISH, record your observation date and time and record 0 fish seen.
2. If you observe more than once a day, record all your observations under the same date, on a different line and the different times.
3. Identify any live or dead salmon you see. When you are reasonably certain of your identification (more than 75% sure), record it on this form. If you can't identify it, write UNID and describe it as best you can. (Especially note size, color, spots on back, spots on tail - upper or lower part.)
4. Record observations such as spawning activity, other wildlife, a neighbor's comment, and sounds of splashing from non-visible areas in the Comments column.

| Date | Start Time | End Time | Species Name* <small>Only write here if you see adult salmon</small> | # Live Adult <small>Fish per species</small> | # Dead Adult <small>Fish per species</small> | Total Adult Fish Count <small>(live + dead)</small> | Juvenile Fish <small>< 6"-8" (Y or N)</small> | # Citizens Talked With | # of fish without adipose fin | Did you encounter anything requiring attention? <small>If so, did you notify anyone?</small> | Comments (water clarity, redds present, mussels) Tags? <small>(use back, too)</small> |
|------|------------|----------|---|---|---|--|---|------------------------|-------------------------------|---|--|
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*Key: COHO-Coho, CHIN-Chinook, SOCK-Sockeye, CHUM-Chum, KOKA-Kokanee, CUTT-Cutthroat trout, TROU-Rainbow or steelhead trout, UNID-Unidentified

Please return form during the first week of the following month.

If you have any questions, call Katie Sauter at (206) 296-0516. **Thank you so much!**

This project is sponsored by the Cedar/Sammamish/Lake Washington Watershed Forum, King County Water and Land Resources Division, Snohomish County Surface Water Management, Cities of Bellevue, Bothell, Issaquah, Kirkland, Renton, Redmond, Seattle, and Woodinville.

Please do not write below this line _____

Data entered on _____ Initial _____. First data check on _____ Initial _____. Second data check on _____ Initial _____. Observations IDs _____
 Copied for: _____ Date: _____