

**SURVEY OF ENVIRONMENTAL MONITORING
PROGRAMS AND ASSOCIATED DATABASES
WITHIN WASHINGTON STATE**

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EXECUTIVE SUMMARY

A survey of existing environmental monitoring programs and their associated databases was conducted during the winter of 2001-2002. The survey was designed to meet data inventory needs for Substitute Senate Bill 5637. The Comprehensive Monitoring Strategy (CMS) is to: *"Identify and evaluate existing state and non-state monitoring activities, including, but not limited to, those conducted under the state's scorecard process, by federal agencies, and by a wide variety of non-government organizations for inclusion in a framework and the filling of monitoring gaps"*. The survey also provided information to develop a data access portal considered a necessary component of the CMS.

A survey questionnaire was developed and mailed to 526 different organizations. Of these, 14.6 percent (77) responded to the survey. A total of 145 different monitoring programs or databases were identified.

Of state agencies, 70% responded that the program and associated database is a result of RCW or WAC and 84% directly or indirectly support watershed health or salmon recovery monitoring. All state agencies reported that all of the monitoring activities (100%) are ongoing. Most monitoring is statewide in scope, and 74% of state agency monitoring is geospatially referenced (i.e. data can be overlain into a geographic information system), and 53% of the monitoring programs have been collecting data for more than 5 years.

The survey provided valuable information about which components are already web enabled and which databases would need additional funding in order to make them web available. Only 19% of the identified watershed health and salmon recovery related data are viewable on the web. Overall, 35% of state monitoring programs with databases can be downloaded from the web.

The geographic focus of the counties was, as would be expected, at the watershed level and to a lesser degree upon the area within the county boundaries. Approximately 74% of the county monitoring programs were geospatially referenced, and 47% of the databases were in existence less than 6 years and only 26% had been collecting information for more than 5 years. Only 11% of the identified watershed health and salmon recovery related monitoring databases were viewable on the web. Overall, only 5% of the databases were downloadable from the web. Of the municipalities who responded to the survey, 68% of the databases have been in existence less than 6 years and 28% had collected data for more than 5 years.

The greatest data overlap existed between the Departments of Transportation, Natural Resources, Interagency Committee for Outdoor Recreation, and Fish and Wildlife in tracking fish passage barriers and their effectiveness. There was little or no redundancy in data between state and local governments due to differences in scale and in the monitoring questions answered.

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INTRODUCTION

A survey of existing environmental monitoring programs and their associated databases was conducted during the winter of 2001-2002. The survey was designed to meet the requirements of Substitute Senate Bill 5637—a bill requiring the Monitoring Oversight Committee to develop a comprehensive strategy to monitor salmon recovery and watershed health. The Comprehensive Monitoring Strategy (CMS) is to:

“Identify and evaluate existing state and non-state monitoring activities, including, but not limited to, those conducted under the state’s scorecard process, by federal agencies, and by a wide variety of non-government organizations for inclusion in a framework and the filling of monitoring gaps”

In addition, and complementary to this charge, the survey was designed to provide much of the information needed to populate a natural resources data access portal—a web project considered a necessary component of the CMS.

METHODS

A survey questionnaire was developed to answer specific information about ongoing natural resource monitoring in the state. The first phase of the survey was mailed to state agencies on December 21st, 2001. The surveys were distributed electronically as a Microsoft Word Document. The agencies provided responses either through mailing a hard copy or by completing and “emailing” the Word document. Completed surveys were due January 4, 2002. Because the request was mailed during the Christmas and New Year’s holidays, the deadline was extended until January 11, 2002. The survey was mailed to federal, county, and municipal governments on February 22, 2002. By this date, a website had been developed where the survey questions could be answered interactively without the need for mailing survey results. The survey was mailed to tribal governments and conservation districts on March 7th, and to non-profit entities on March 25th. Survey instructions and questions are found in Appendix A.

RESULTS

Seventy-seven organizations (14.6 percent) responded to the survey and identified 145 different monitoring programs and associated databases. One agency may have responded multiple times depending upon the number of monitoring programs they reported. Tables summarizing the results of each question can be found in Appendix B.

DISCUSSION

The following discussion summarizes information obtained from the survey. There were some obvious shortcomings in the survey. It was not known whether agencies that did not respond had or did not have applicable databases. We did not attempt to contact those that did not respond to determine if there was a bias in the data. In other words, whether the agencies that responded did so because they had applicable databases. Based upon some telephone conversations this is highly likely. However, because there is no bias estimate, we cannot say with any certainty that the survey results represent the status of all 526 different organizations contacted.

There was also no attempt to consolidate the findings of this survey with the survey conducted by the Independent Science Panel's "Recommendations for Monitoring Salmonid Recovery in Washington State, Report 2000-2, December 2000," or the survey of databases reported by the Watershed Coordinating Council in their "Report to the Governor and the Legislature of Washington State under ESHB 2741 Task 4 December, 1994".

A. State Agencies Associated with Natural Resources

The survey was mailed to 12 state natural resource associated agencies for response. Eight agencies responded with either a completed survey or that they did not have any applicable monitoring programs with associated databases. Of the eight responding agencies, some had more than one applicable database. Figure 1 illustrates the relative numbers of applicable databases by state agency.

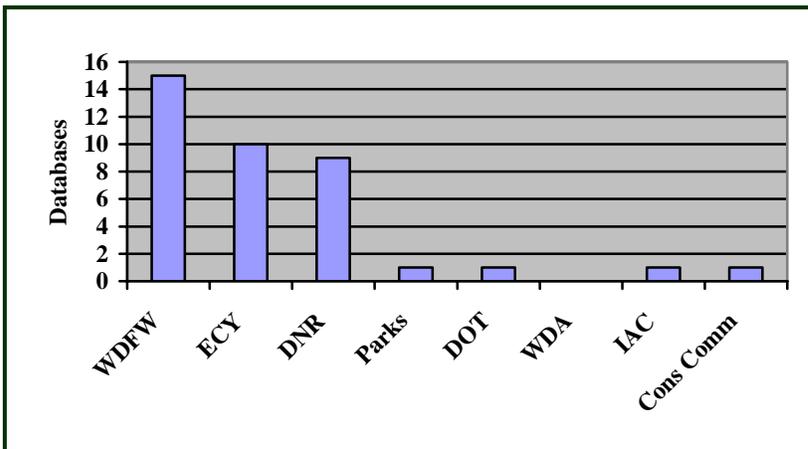


Figure 1. Watershed health databases per state agencies. (PSAMP is included in other agency figures.)

Of those state agencies responding to the survey, 70% responded that the database was a result of RCW or WAC. Of the identified state databases, 84% directly or indirectly support watershed health or salmon recovery monitoring. All of the state agencies reported that all of the monitoring activities (100%) were

ongoing. The agencies monitored watershed health and salmon recovery in a variety of ways, but status and trend monitoring was the most dominant type of monitoring (Fig. 2).

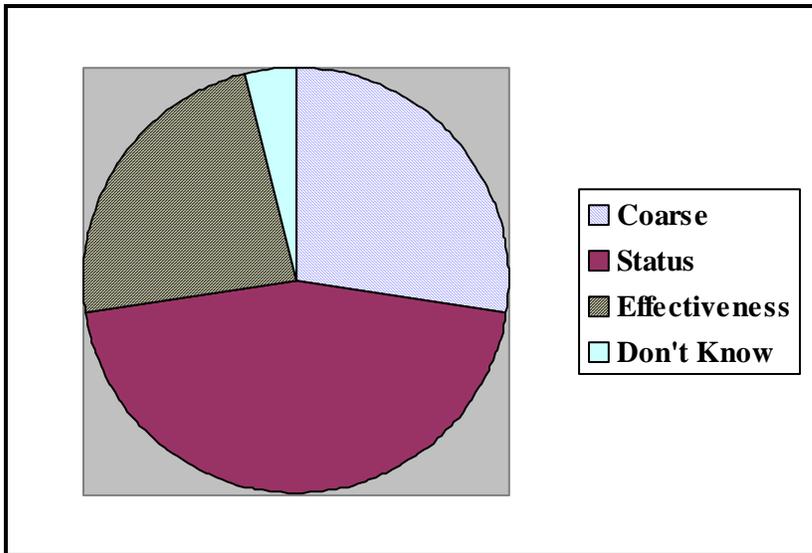


Figure 2. Kinds of state agency monitoring

The geographic focus of the various databases varied considerably, but statewide databases were overall the greatest number of the reported (24). This is not surprising since state agencies have a statewide purview and jurisdiction. Figure 3 summarizes the variety of geographic scales encountered.

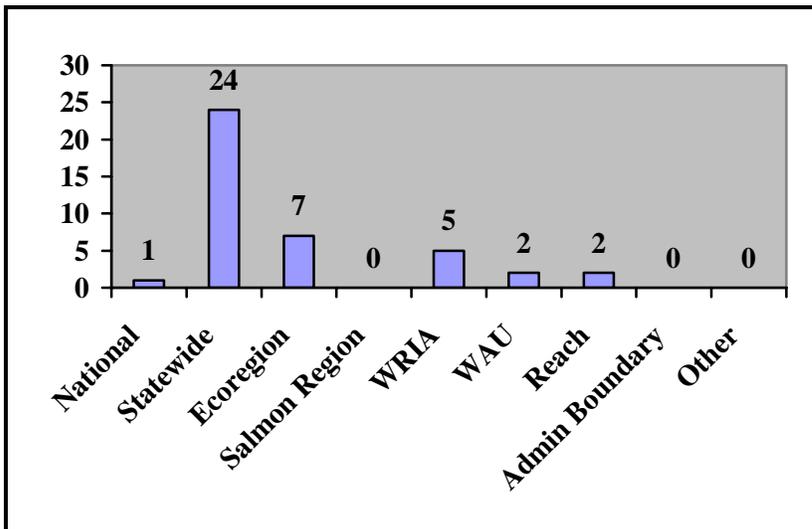


Figure 3. Geographic Scope of State Agency Databases

Of these data collected across the state, 74% of state agency monitoring is geospatially referenced. In other words, data relate to a specific spot on the

ground and overlay into a geographic information system. This compares with 71% for federal monitoring and 74% for county monitoring reported in the survey. Municipalities currently have only 40% of their monitoring databases geospatially referenced, and another 16% partially referenced.

State agencies collected monitoring information from all of the Salmon Recovery Regions (Fig. 4). However, more monitoring programs collected information from west side regions than from eastern Washington. This probably reflects the dominance of salmon programs associated with Puget Sound and the coast.

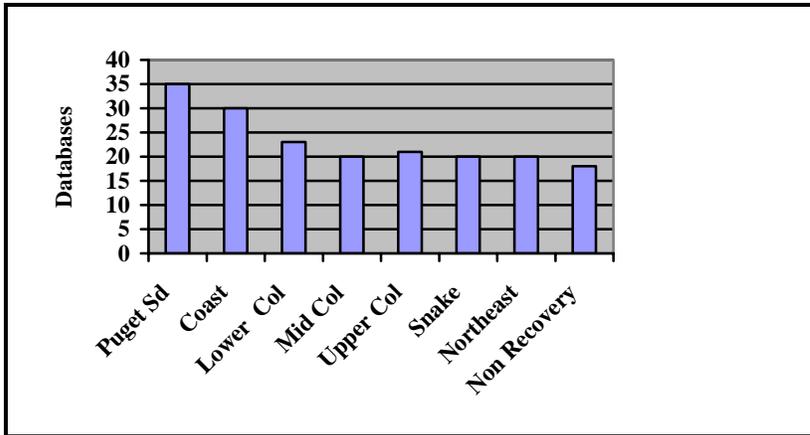


Figure 4. Regions where state agencies collect data.

Of the state agencies who responded to the survey, 53% have been collecting data for more than five years.

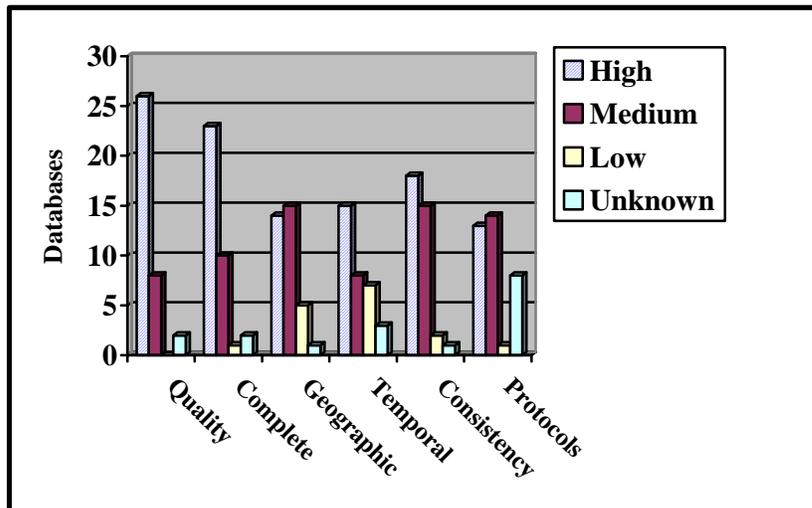


Figure 5. State Agencies data quality summary

When asked a series of questions about data quality (Fig. 5) and quality of the sampling design (Fig. 6), state agencies responded that data quality and design was high, but there was a question whether the sampling regime was properly

designed in 11% of the programs. The greatest area of concern was whether geographic and temporal sampling had been adequately designed.

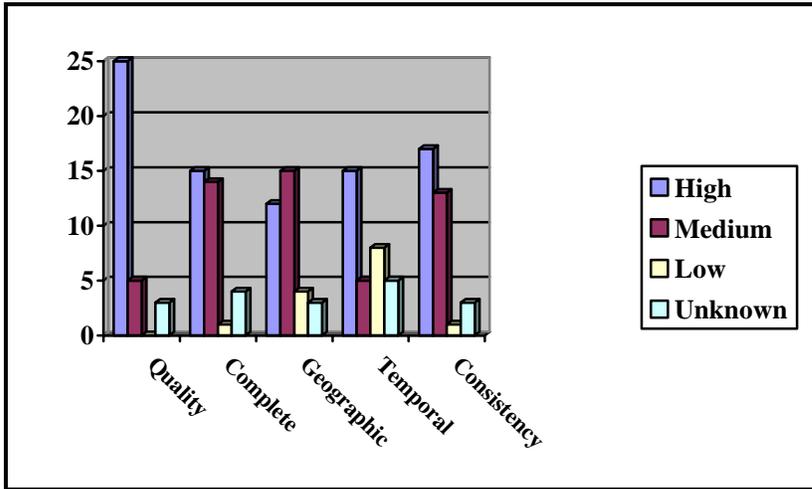


Figure 6. Overall quality of state agency sampling designs

A fee was sometimes charged for the Department of Ecology’s (ECY) PSAMP sediment database, ECY’s Walla Walla Stream database, Department of Natural Resources (DNR) Transportation database, and Department of Fish and Wildlife (WDFW) Commercial Fish Ticket database, but for the other 33 (89%), no fee was charged. State agencies also reported that only two of the 37 databases were considered sensitive or proprietary and, therefore, generally not available. These databases are: commercial fish tickets and hatcheries. The commercial fish ticket database is sensitive in that a commercial fisher’s personal income could potentially be calculated from the ticket information as well as where the individual fished. It was not known why hatchery data were considered sensitive.

It is important to a successful monitoring strategy that information collected be available on the web. The survey provided valuable information about which components were already web enabled and which databases would need additional funding in order to make them web available. Overall, one can download 35% of the databases from the web (Fig. 7). Only 19% of the identified watershed health and salmon recovery related data were viewable on the web.

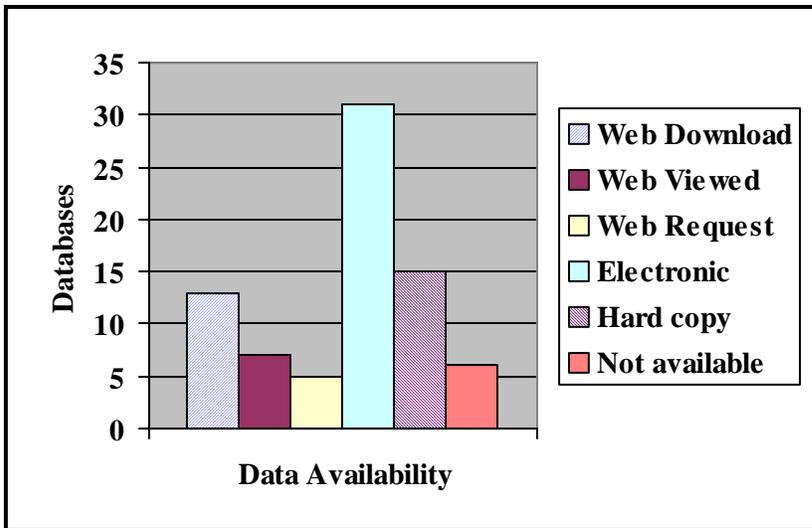


Figure 7. State databases that are web accessible

State agencies varied widely as to how often they updated databases (see Fig. 8).

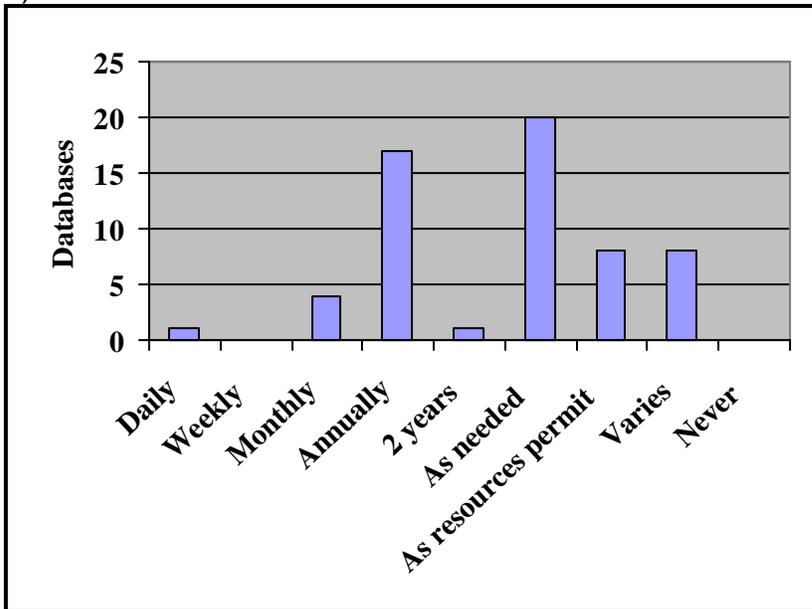


Figure 8. Frequency of database updates

The state agencies reported that 75% of their databases relied upon others for data for inclusion in the database. This was the highest in terms of reliance upon others for data. Conservation Districts appeared to be the most self-sufficient with 0% of the reporting districts indicating that monitoring data was dependent upon others.

State agencies reported that 49% of their databases were readily available on maps. This correlated with 59% of the databases reported as existing as a Geographic Information System (GIS) overlay.

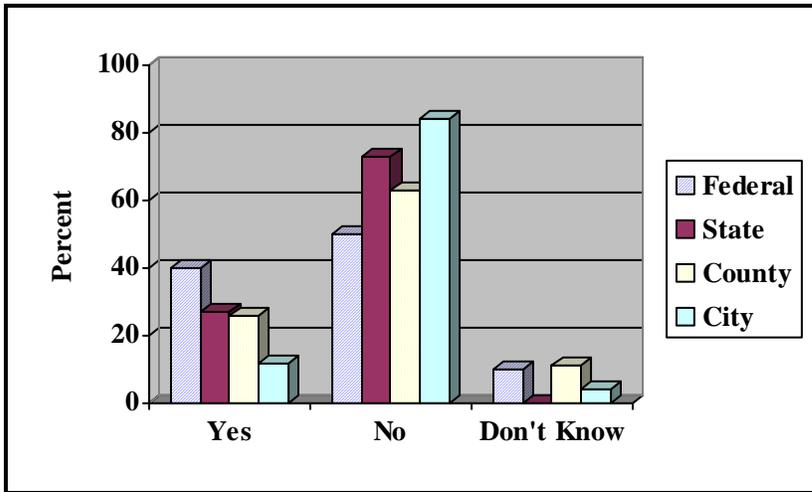


Figure 9. Percent of databases dependent upon others for all or part of the information.

When asked the question “Is the program implemented by multiple agencies?” (yes assumes that each component depends on the completion of the other); a similar trend was observed as for ongoing versus short term monitoring (Fig. 10).

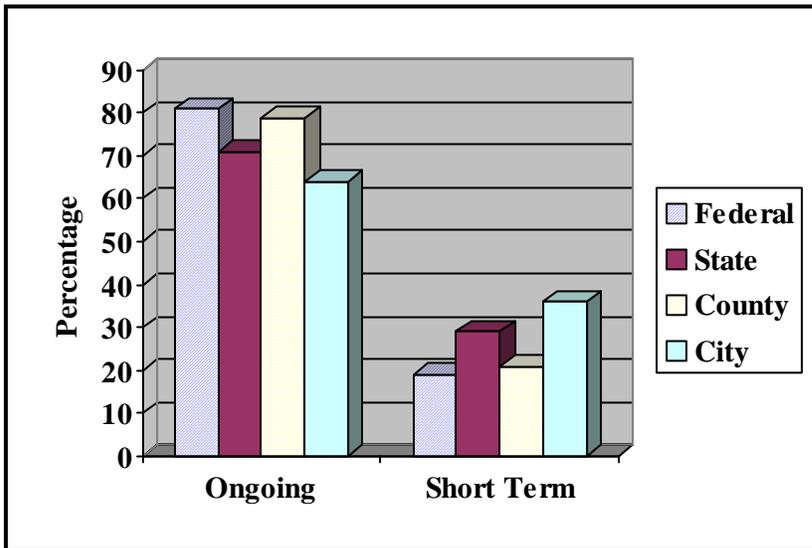


Figure 10. Percentage of databases active and ongoing

The federal government is the most dependent upon others for their data, whereas the state, county and municipality databases are much more independent.

B. All Agencies Combined

Seventy-seven agencies/entities responded to the survey and identified 145 programs with data applicable to salmon recovery and watershed health. Many agencies had more than one database included in the survey (see Fig. 11).

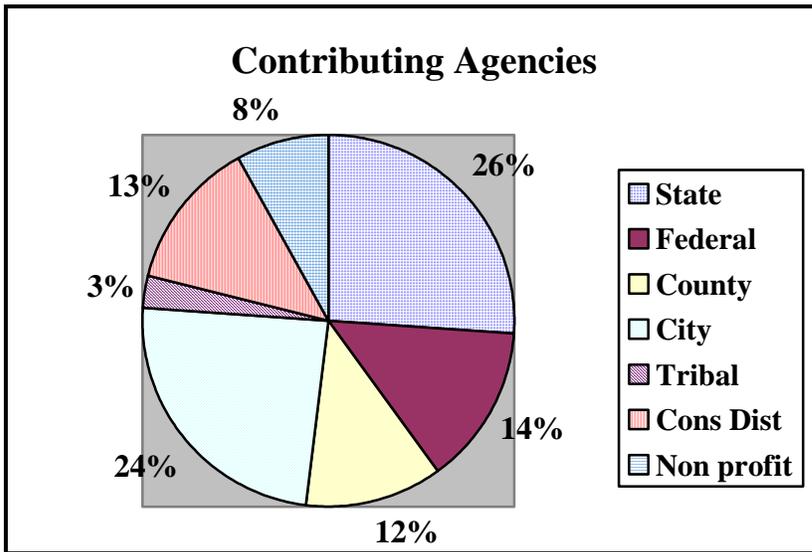


Figure 11. Agencies contributing to the survey

Of the identified programs with data, 46% were the result of federal, state, or local laws or rules. The following pie chart (Fig. 12) summarizes the kinds of authorizations that created the monitoring databases.

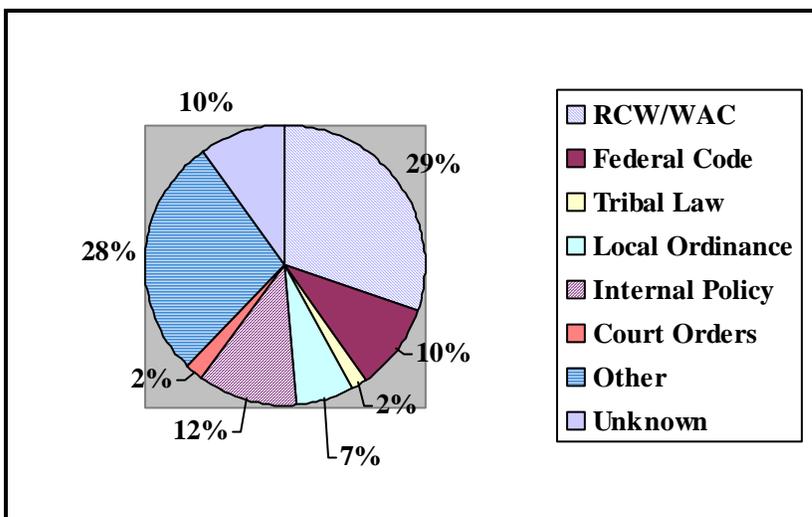


Figure 12 Authorization creating database

Of the monitoring programs and associated databases reported in the survey, 94% either directly or indirectly supported watershed health and/or salmon recovery evaluations. The survey results (Fig. 13) indicated that monitoring was predominantly tracking status and trends, but effectiveness monitoring and coarse inventories were also very common.

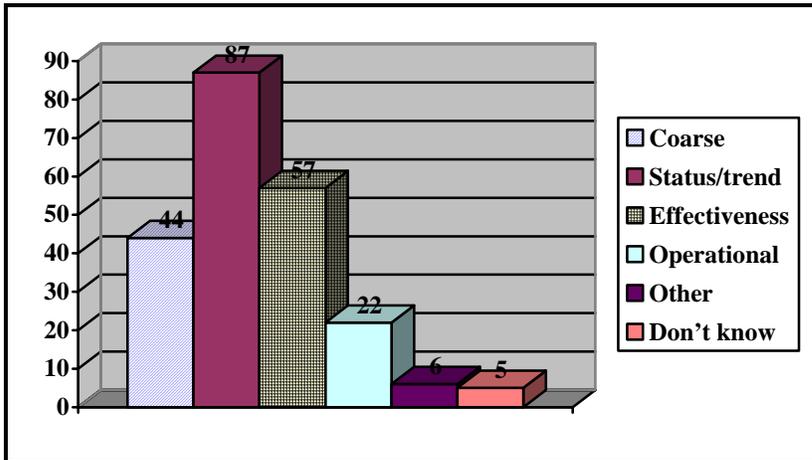


Figure 13. Types of monitoring

The geographic focus of the various databases varied considerably. Most of the databases reported were for selected watersheds (41), but statewide and selected WRIAs (40) and select reaches (37) were also significant. Figure 14 summarizes the variety of geographic scales encountered and probably reflects directly the jurisdiction of the responding agencies.

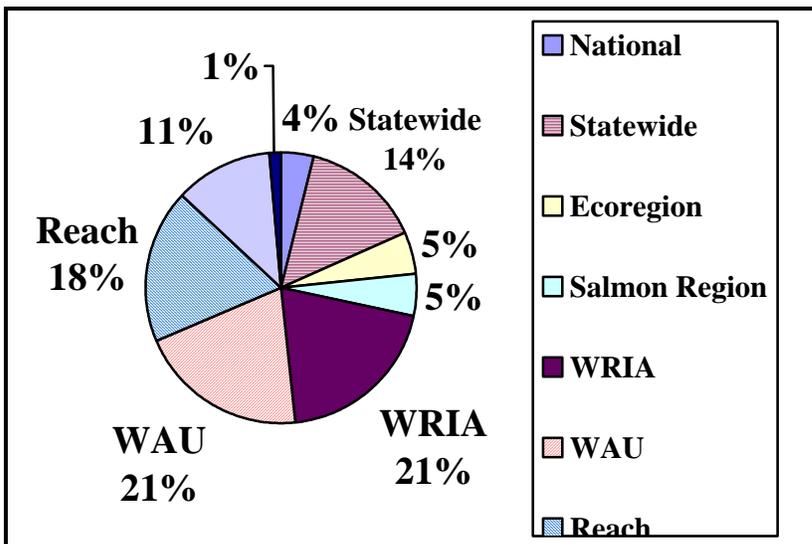


Figure 14. Geographic focus of identified monitoring

Most of the databases (66%) are geospatially referenced, and some (19%) are partially referenced. In other words, the data relate to a specific spot on the ground and overlay into a geographic information system.

Because many of the databases were statewide, monitoring information was equally available for each Salmon Recovery Region with the exception of the Puget Sound Region as Puget Sound has many more databases available. Figure 15 illustrates the distribution of information.

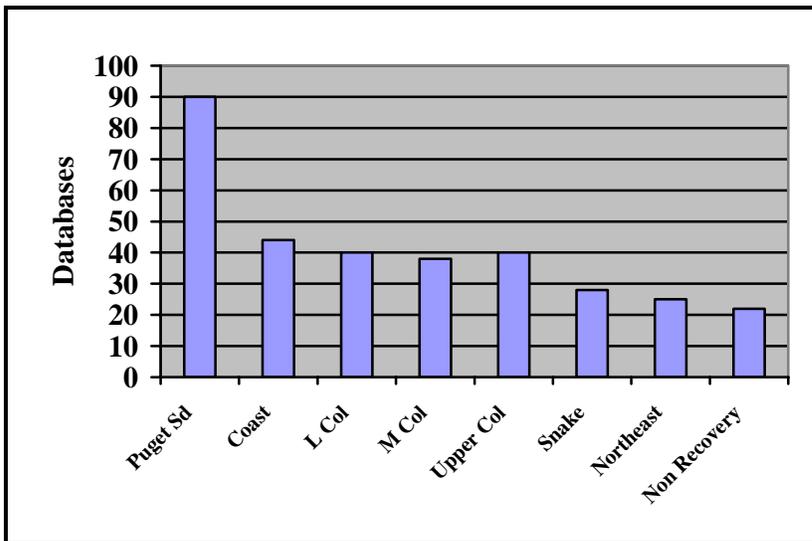


Figure 15. Databases including information about a Salmon Recovery Region

Overall, the responding agencies collected information in a variety of ways. No specific sampling frequency was dominant when all of the agencies are taken as a whole (Fig. 16).

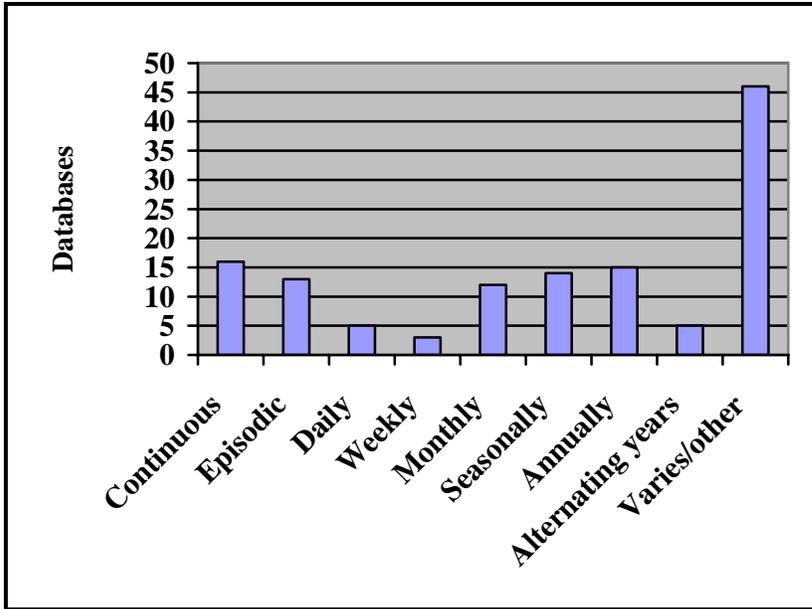


Figure 16. Data collection frequency, all agencies

Approximately one third of the databases surveyed have been in existence over five years and another third between one and five years (see Fig. 17). Overall nearly half of the databases reported in this survey have been in existence five or less years.

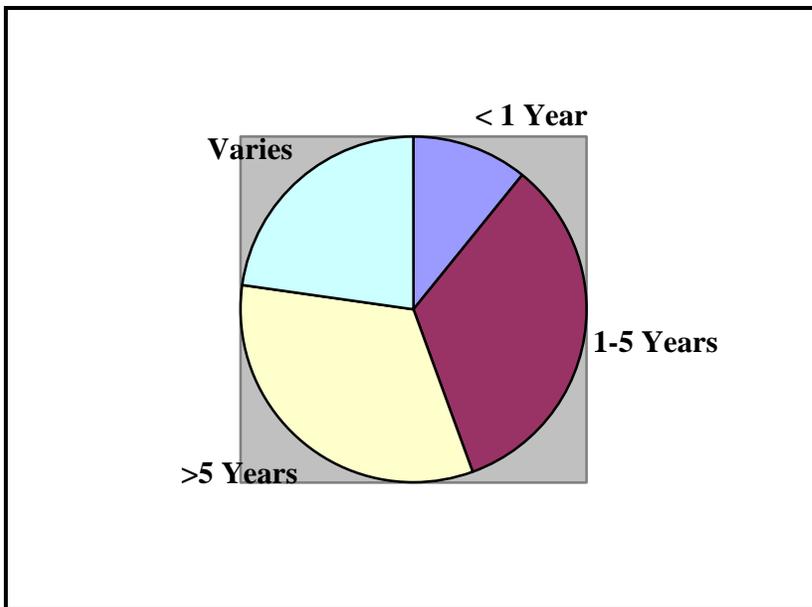


Figure 17. Years of data available for all surveyed databases

Overall across all of the reported databases, the quality of the data was considered high to medium quality (Fig. 18). Temporal scale and meta data and protocol standards were identified most often as low quality or unknown.

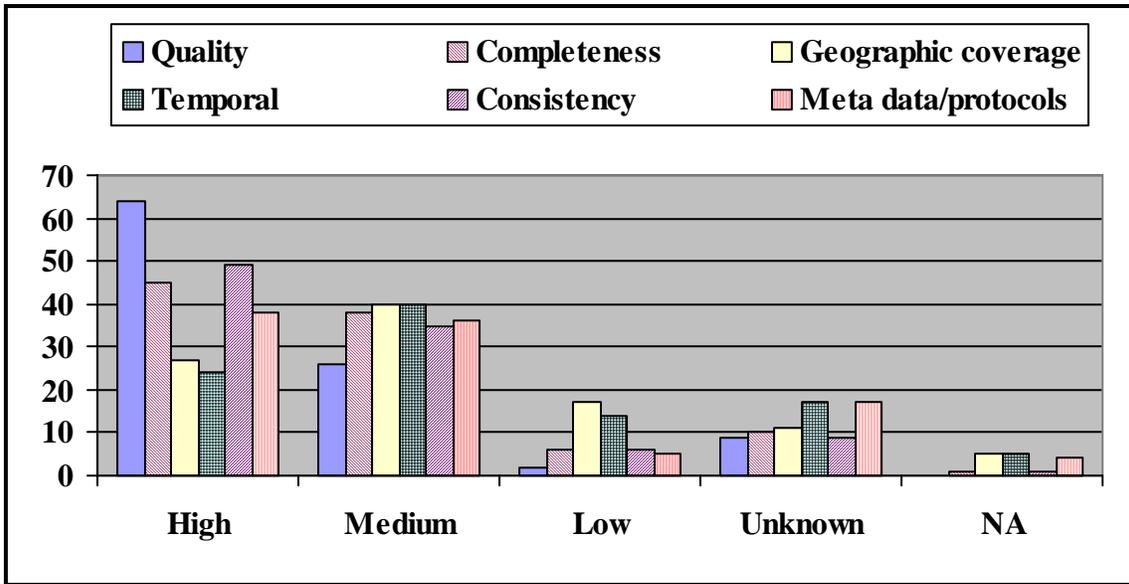


Figure 18. Overall agency evaluation of surveyed databases

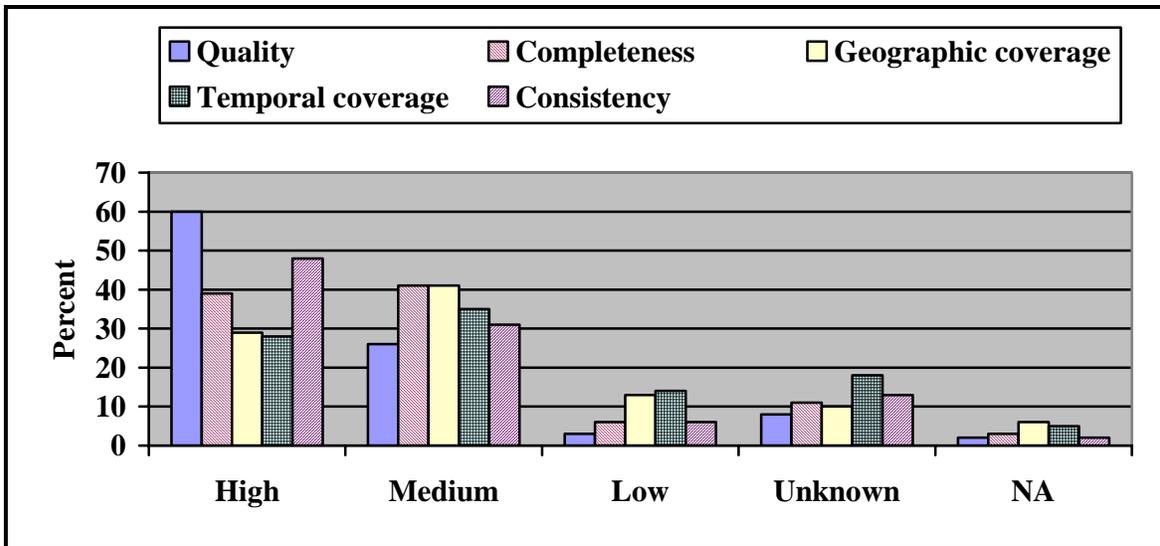


Figure 19. Overall agency self assessment of program sampling design

A similar response was obtained by the agencies when they self-evaluated the sampling design behind their database (Fig. 19). Most rated their sampling design as high or medium quality. Lower scores were given more often for geographic and temporal coverage.

Overall, out of 130 responding programs with databases, only one program consistently charged money for accessing the data and seven others charged sometimes depending upon the request.

Only 5% of the sampled databases are considered proprietary or sensitive and therefore not generally available.

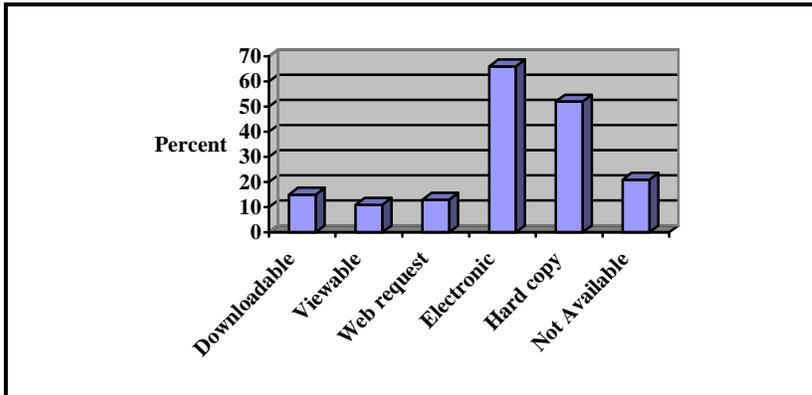


Figure 20. Overview of how raw data are made available to users

As shown in Figure 20, only 15 % of raw data are downloadable from the web and only 11% can be viewed from the web. Agencies overall are still dependent upon electronic and hard copies for distributing information to other interested users.

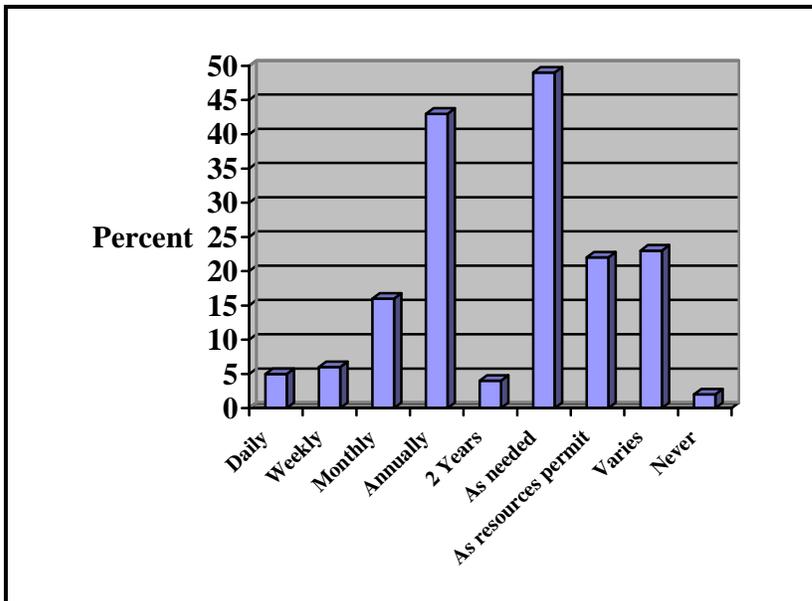


Figure 21. How often the sampled agencies compile/analyze raw data

Raw data are most often compiled annually or as needed to meet various internal or statutory deadlines (Fig. 21).

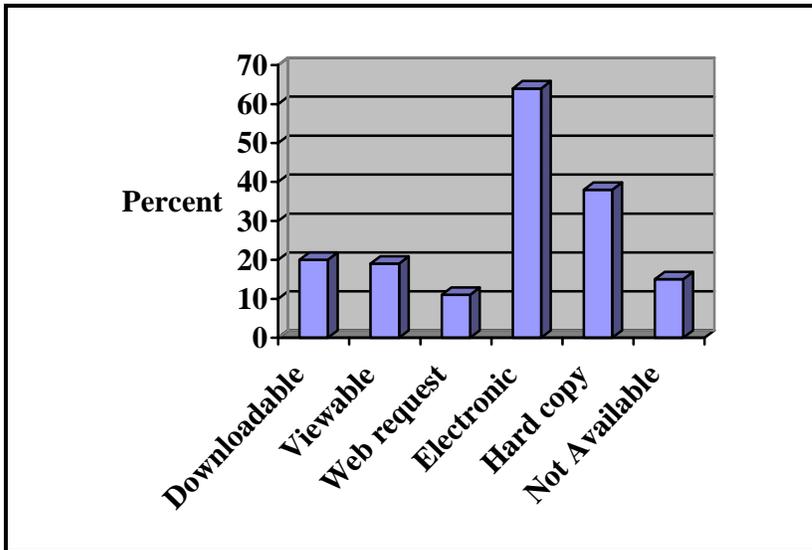


Figure 22. How the agencies make available summarized/analyzed data

Summarized data are slightly more available than raw data with 20% downloadable and 19% viewable from the web (Fig. 22). Electronic and hard copies continue to be the norm for distributing summarized data and reports.

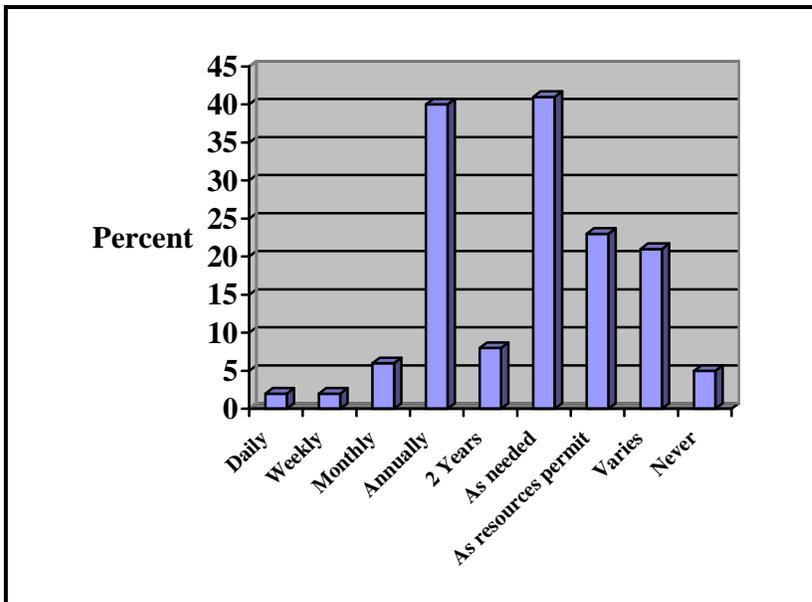


Figure 23. Overview of how often the agencies report/publish data

There is very little difference between how the agencies updated raw data and how they published summarized reports (Fig. 23). Both were done either annually or as needed for most databases.

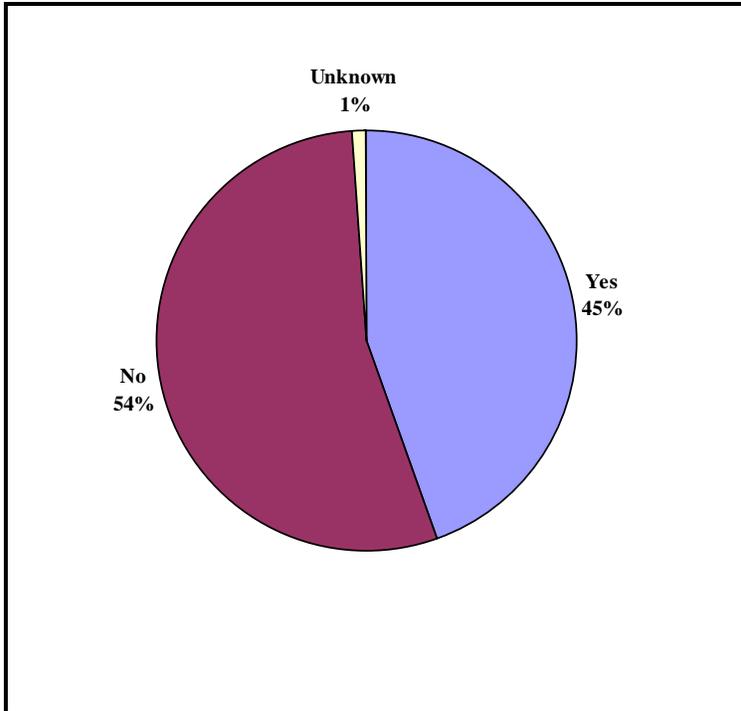


Figure 24. Reliance of agencies upon others for raw data

About half of the reported databases rely upon others for all or part of the data (Fig. 24).

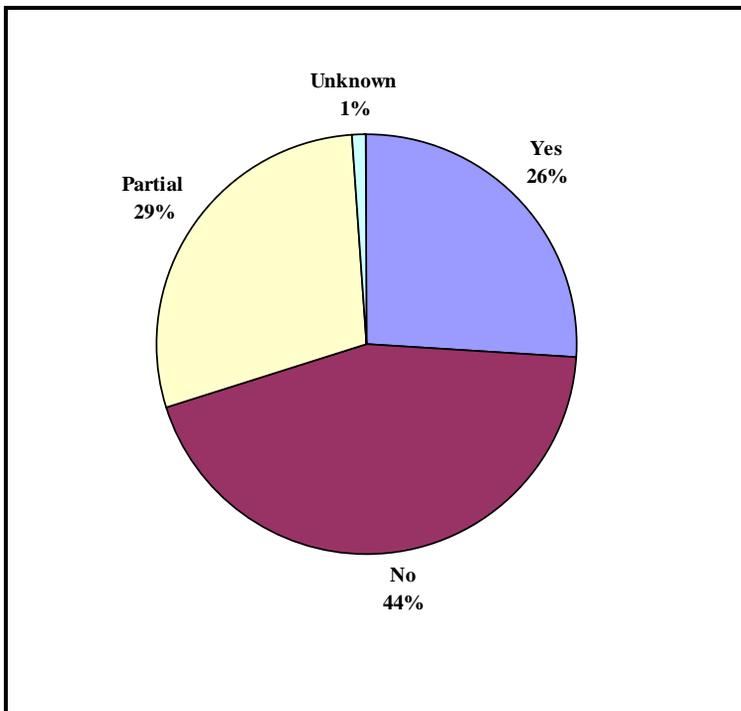


Figure 25. Overview of whether agency data are available on maps

It was surprising to learn that a quarter of the databases can be utilized as a map coverage and that another 29% are partially completed (Fig. 25) and that nearly half of the databases can be utilized as a GIS coverage (Fig. 26).

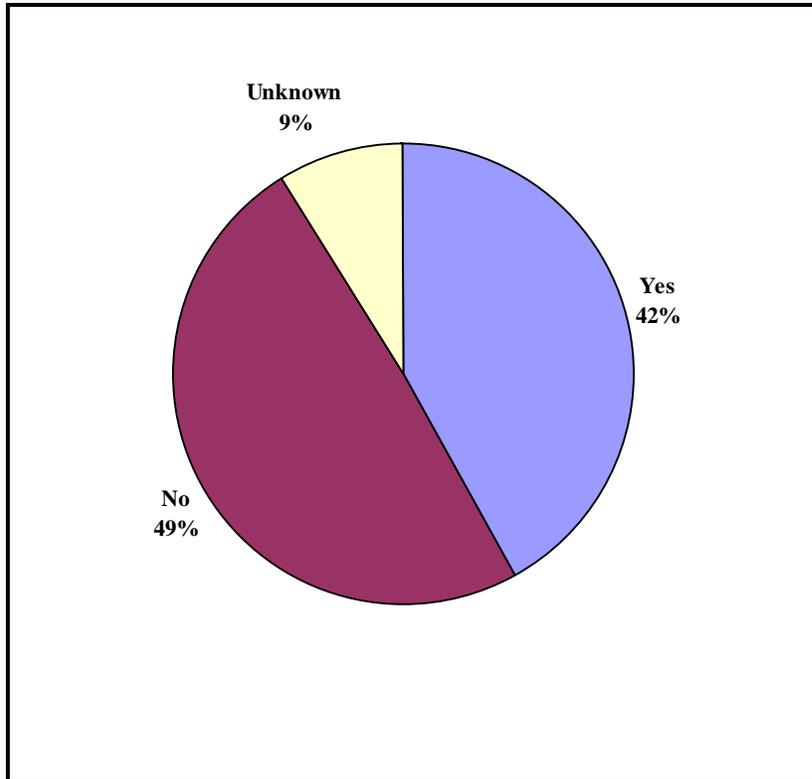


Figure 26. Overview of whether agency data exists as a GIS coverage

The existence of the sampled databases points to the need to coordinate and combine the information contained in them in a holistic approach that can be used by all levels of government and the public to monitor our progress in maintaining water quality, safeguarding and properly using salmon populations, and in protecting aquatic and marine habitat critical to maintaining healthy watersheds. A state data portal has been implemented as the beginning step to realizing this vision. The portal provides links to existing Internet accessible state agency data. This is a first step in developing a more comprehensive linking and reporting system for other users and contributors as well. It can be accessed at <http://www.swim.wa.gov/>.

There are probably many more databases that this survey failed to locate. Hopefully the information contained here will be helpful to those looking for natural resource data.

APPENDICES

APPENDIX A

SURVEY QUESTIONS

1. Your agency/organization name
2. How would you best characterize your organization?
 - Academic
 - City
 - County
 - Federal
 - Multi-jurisdictional
 - Private/Volunteer/Non profit
 - State
 - Tribal
3. Person completing or coordinating this response
 - a. Name
 - b. Phone
 - c. Email
4. Monitoring program title
5. Acronym/abbreviation of monitoring program
6. Provide an overview of the monitoring program including general purpose and area or focus. (In one paragraph or less of text – 1,000 characters maximum.)
7. Who is the specific audience/customer/user of your monitoring results? (In one paragraph or less of text – 1,000 characters maximum.)
8. What are the specific objectives of your monitoring program? (In one paragraph or less of text – 1,000 characters maximum.)
9. Under what authority/requirement/need is the program conducted? Please check all that apply and provide citations as appropriate.
 - RCW/WAC
 - CFR
 - Tribal Law
 - Local Ordinances
 - Internal business policy reasons
 - Court orders/decisions
 - Other
 - Unknown
10. This monitoring or data resource relates to monitoring watershed health and salmon recovery in the following way:
 - Directly supports watershed health or salmon recovery evaluations
 - Indirectly supports watershed health or salmon recovery evaluations
 - No relationship – but the data are of environmental interest and should be accessible i.e., be listed in the Natural Resources Data Access Portal
11. Is the program ongoing (currently being conducted)?
 Yes No
12. How would you best classify the type of monitoring? (Check all that apply.)

- Coarse inventory – generally broad geographic look with minimal samples
 - Status monitoring (includes trend monitoring)
 - Effectiveness, validation, cause and effect
 - Operational
 - Other
 - Don't know
13. What is the primary geographic focus of the program? (Check all that apply.)
- Multi-State/International
 - Statewide
 - Ecoregions or Marine Waters
 - Salmon Recovery Regions, ESUs
 - Select WRIAs, HUCs (4th field HUCs)
 - Select Watersheds (WAUs and 5th/6th field HUCs)
 - Select Reaches/Projects
 - Administrative Boundaries
 - Other
14. Are sampling locations geospatially referenced, e.g. identified by latitude and longitude; state plane; UTM; or Section, Township, Range coordinates?
- Yes No Partially Unknown
15. Specify the Salmon Recovery Regions where you have collected data in this program. Check all that apply.
- Puget Sound – WRIAs 1-18
 - Washington Coastal – WRIAs 19-24
 - Lower Columbia River – WRIAs 25-29
 - Middle Columbia River – WRIAs 30, 31, 37-40
 - Upper Columbia River – WRIAs 44-50
 - Snake River – WRIAs 32, 33, 35
 - Northeast Washington – WRIAs 53, 54, 58, 60-62
 - Non Salmon Recovery Areas – WRIAs 34, 36, 41-43, 51, 52, 55-57, 59
16. How often are samples usually collected in this program? (Select one)
- Continuous
 - Episodic
 - Daily
 - Weekly
 - Monthly
 - Seasonally
 - Annually
 - Alternating years – e.g., once every 3 years
 - Varies/other
17. How many years of data do you have? (Select one)
- Less than 1 year
 - 1 to 5 years
 - More than 5 years

- ___ Varies by project
18. What is the general data content of the program? (Check all that apply.)
- ___ Freshwater Surface Water Quality (incl. bacteria, sediments and tissue)
 - ___ Marine/Estuarine Water Quality (incl. bacteria, sediments and tissue)
 - ___ Water Quantity/Hydrology
 - ___ Ground Water Quality/Quantity
 - ___ Predation of Salmonids
 - ___ Salmonid Productivity, Abundance, Distribution, Diversity, Survival
 - ___ Salmonid Passage/Barriers/Screens
 - ___ Climate and Ocean Conditions
 - ___ Wetlands
 - ___ Biological – marine mammals
 - ___ Biological – other
 - ___ Exotic Species
 - ___ Hatcheries – disease, genetics, strains
 - ___ Hatcheries – fish release, capture, disposition
 - ___ Harvest
 - ___ Nearshore
 - ___ Riparian Habitat
 - ___ Instream Habitat
 - ___ Waterway and Channel Modifications
 - ___ Large Hydropower/Dam Effects
 - ___ Upland Habitat
 - ___ Other Uplands (above riparian area)
 - ___ Geologic
 - ___ Land Use/Land Cover – current and historical
 - ___ Landscape/features inventory
 - ___ Landscape activities – restoration projects
 - ___ Other
19. If Other was selected as a response in question 18, please specify general data content.
20. Often monitoring programs are challenged by funding and other constraints. Rate the monitoring data quality/condition resulting from the monitoring program as High (3), Medium (2), Low (1). Unknown/Varied or Not Applicable in each of the following categories (18 points possible):
- a. Quality
 - ___ High ___ Medium ___ Low ___ Unknown/Varied ___ Not Applicable
 - b. Completeness
 - ___ High ___ Medium ___ Low ___ Unknown/Varied ___ Not Applicable
 - c. Geographic coverage
 - ___ High ___ Medium ___ Low ___ Unknown/Varied ___ Not Applicable
 - d. Temporal coverage

- High Medium Low Unknown/Varied Not Applicable
- e. Consistency
- High Medium Low Unknown/Varied Not Applicable
- f. Meta data and protocols
- High Medium Low Unknown/Varied Not Applicable
21. Considering the purpose of the program; rate the sampling design, scope and implementation of the monitoring program as High (3), Medium (2), Low (1). Unknown/Varied or Not Applicable in each of the following categories (15 points possible):
- a. Quality
- High Medium Low Unknown/Varied Not Applicable
- b. Completeness
- High Medium Low Unknown/Varied Not Applicable
- c. Geographic coverage
- High Medium Low Unknown/Varied Not Applicable
- d. Temporal coverage
- High Medium Low Unknown/Varied Not Applicable
- e. Consistency
- High Medium Low Unknown/Varied Not Applicable
22. Do you charge money for the data (excluding nominal reproduction costs)?
- Yes No Sometimes
23. Are the data sensitive or proprietary and therefore not generally available?
- Yes No
24. How are raw data made available? ("Raw" is defined here as including QA/QC and integrity checks.) Check all that apply.
- Can be downloaded from the Web
 Can be viewed on the Web
 Routine request made via the Web and provided electronically
 Special request via email or letter and provided electronically
 Data are available via hard copy
 Data generally are not available
25. Who is the single best contact person for access to the monitoring program data?
- a. Name
- b. Phone
- c. Email

26. How often do you analyze/summarize/compile the raw data? (Check all that apply.)
- Daily
 - Weekly
 - Monthly
 - Annually
 - Every 2 years
 - As needed
 - As resources permit
 - Varies by project
 - Never
27. How often do you report/publish data? (Check all that apply.)
- Daily
 - Weekly
 - Monthly
 - Annually
 - Every 2 years
 - As needed
 - As resources permit
 - Varies by project
 - Never
28. How are analyzed/summarized data made available? (Check all that apply.)
- Can be downloaded from the Web
 - Can be viewed on the Web
 - Routine request made via the Web and provided electronically
 - Special request via email or letter and provided electronically
 - Data are available via hard copy
 - Data generally are not available
29. Does your monitoring program rely on data from others?
- Yes No Unknown
30. Are the data readily available on maps?
- Yes Partial No Unknown
31. Do data exist as GIS coverages?
- Yes No Unknown
32. What type of funding is used for the monitoring program?
- Short term funding – project, grant, temporary – generally 2 years or less
 - Ongoing funding – reasonably expect funding to continue

APPENDIX B. SUMMARIZED SURVEY DATA TABLES

The following tables summarize the overall results from the survey under the various categories. The completed survey forms are in Appendix C.

Question 1. Agency Name? No summarized data for this question. See Appendix C.

Table 1. Number of organizations responding to the survey.

Agency Type	Number Contacted	Number Responding	Percent Response
State	12	8	66
Federal	7	5	71
County	39	8	20
Municipality	280	29	10
Conservation District	48	13	27
Tribal	28	4	14
Non-profit	112	12	10
TOTAL	526	79	

Table 2. Question 2: How would you best characterize your organization?

Organization	Responses	Percentage
Academic	0	0
City	35	24
Conservation District	19	13
County	17	12
Federal	21	14
Private/volunteer/nonprofit	12	8
State	37	26
Tribal	4	3
Total	145	100

Question 3. Person completing response – see Appendix C

Question 4. Program title – see Appendix C

Question 5. Acronym – see Appendix C

Question 6. “Overview” statement – see Appendix C

Question 7. “Audience” statement – see Appendix C

Question 8. “Objectives” statement – see Appendix C

Table 3. Question 9: Under what authority/requirement/need is the program conducted?

Authority	Responses	Percentage
RCW/WAC	51	41
Federal Regulations	17	14
Tribal Law	3	2
Local Ordinance	11	9
Internal business policy	20	16
Court Orders/decisions	3	2
Other	47	38
Unknown	17	14
Total	125	*

* Some gave multiple responses to this question

Table 4. Question 10: This monitoring or data resource relates to monitoring watershed health and salmon recovery in the following way.

Relates to Watershed health/Salmon recovery	Responses	Percentage
Directly supports watershed health or salmon recovery evaluations	82	65
Indirectly supports watershed health or salmon recovery evaluations	36	29
No relationship—but the data are of environmental interest and should be accessible i.e., be listed in the data access portal	8	6
Total	126	100

Table 5. Question 11: Is the program ongoing?

Agency	Yes	No
State	37	0
Federal/Non profit	20	1
Counties	18	0
Cities	19	7
Conservation District	12	5
Tribal	3	0
Total	109	13
Percent	89	11

Table 6. Question 12: How would you best classify the type of monitoring?

Type of Monitoring	Responses	Percentage
Coarse inventory –generally broad geographic look with minimal samples	44	34
Status monitoring (includes trend monitoring)	87	68
Effectiveness, validation, cause and effect	57	45
Operational	22	17
Other	6	5
Don't know	5	4
Total	128	*

* Some gave multiple responses to this question

Table 7. Question 13: What is the primary geographic focus of the program?

Geographic Focus	Responses	Percentage
Multi-State/International	8	6
Statewide	29	22
Ecoregions or Marine waters	10	8
Salmon Recovery Regions, ESUs	10	8
Select WRIAs, HUCs (4 th field)	40	31
Select watersheds (WAUs and 5 th /6 th field HUCs)	41	32
Select Reaches/projects	37	28
Administrative boundaries	23	18
Other	3	2
Total	130	*

* Some gave multiple responses to this question

Table 8. Question 14: Are sampling locations geospatially referenced, e.g. identified by latitude and longitude; state plane; UTM; or Section, Range, coordinates?

Geospatial Reference	Responses	Percentage
Yes	85	66
No	24	19
Partially	18	14
Unknown	2	1
Total	129	100

Table 9. Question 15: Specify the Salmon Recovery Region where you have collected data in this program. Check all that apply.

Salmon Recovery Region	Responses	Percentage
Puget Sound (WRIA1-18)	90	69
Washington Coastal (WRIAs 19-24)	44	34
Lower Columbia River (WRIAs 25-29)	40	31
Middle Columbia River (WRIAs 30,31,37-40)	38	29
Upper Columbia River (WRIAs 44-50)	40	31
Snake River (WRIAs 32,33,35)	28	22
Northeast Washington (WRIAs 53,54,58,60-62)	25	19
Non Salmon recovery Areas (WRIAs 34, 36, 41-43, 51, 52, 55-57, 59)	22	17
Total	130	*

* Some gave multiple responses to this question

Table 10. Question 16: How often are samples usually collected in this program?

Sampling Frequency	Responses	Percentage
Continuous	16	12
Episodic	13	10
Daily	5	4
Weekly	3	2
Monthly	12	9
Seasonally	14	11
Annually—once a year	15	12
Alternating years	5	4
Varies/other	46	36
Total	129	100

Table 11. Question 17: How many years of data do you have?

Years of Data	Responses	Percentage
Less than 1 year	14	10
1 to 5 years	43	34
More than 5 years	42	33
Varies by project	29	23
Total	128	100

Table 12. Question 18: What is the general data content of the program? (Check all that apply.)

Data Content	Responses	Percentage
Freshwater surface water quality (incl. bacteria, sediments and tissue)	50	38
Marine estuarine water quality	16	12
Water quantity/hydrology	43	33
Ground water quality/quantity	18	14
Predation of salmon	1	1
Salmon productivity, abundance, distribution, diversity, and survival	36	28
Salmon passage/barriers/screens	30	23
Climate and ocean conditions	4	3
Wetlands	21	16
Biological –marine mammals	2	2
Exotic species	8	6
Biological – other	36	28
Hatcheries- disease, genetics, strains	5	4
Hatcheries- fish release, capture, disposition	6	5
Harvest	9	7
Nearshore marine areas	11	8
Riparian habitat	35	27
Instream habitat	37	28
Waterway and channel modification	19	15
Large hydropower/dam effects	5	4
Upland habitat	15	12
Other uplands (above riparian areas)	7	5
Geologic	11	8
Land use/land cover –current and historical	20	15
Landscape/features inventory	14	11
Landscape activities – restoration projects	18	14
Other	20	15
Total	130	*

* Some gave multiple responses to this question

19. Specify other data content in question 18 (see Appendix C).

Table 13. Question 20: Rate the monitoring data quality/condition resulting from the monitoring program

Category	% High	% Medium	% Low	% Unknown	% Not applicable
Quality	64	26	2	9	0
Completeness	45	38	6	10	1
Geographic coverage	27	40	17	11	5
Temporal coverage	24	40	14	17	5
Consistency	49	35	6	9	1
Meta data, protocols	38	36	5	17	4

Table 14. Question 21: Considering the purpose of the program, rate the sampling design, scope and implementation of the monitoring program.

Category	% High	% Medium	% Low	% Unknown	% Not applicable
Quality	60	26	3	8	2
Completeness	39	41	6	11	3
Geographic coverage	29	41	13	10	6
Temporal coverage	28	35	14	18	5
Consistency	48	31	6	13	2

Table 15. Question 22: Do you charge money for the data (excluding nominal reproduction costs)?

Money Charged	Responses	Percentage
Yes	1	1
No	122	94
Sometimes	7	5
Total	130	100

Table 16. Question 23: Are the data sensitive or proprietary and therefore not generally available?

Proprietary?	Responses	Percentage
Yes	6	5
No	125	95

Table 17. Question 24: How are the raw data made available? Check all that apply.

Data Access	Responses	Percentage
Can be downloaded from the web	19	15
Can be viewed on the web	15	11
Routine request made via the web and provided electronically	17	13
Special request via email or letter and provided electronically	86	66
Data are available via hard copy	68	52
Data generally are not available	27	21
Total	131	*

* Some gave multiple responses to this question

Question 25. Who is the best single contact person for access to the monitoring program data? – See Appendix C.

Table 18. Question 26: How often do you analyze/summarize/compile the raw data?

Analyze Frequency	Responses	Percentage
Daily	6	5
Weekly	8	6
Monthly	20	16
Annually	55	43
Every 2 years	5	4
As needed	63	49
As resources permit	28	22
Varies by project	30	23
Never	3	2
Total	129	*

* Some gave multiple responses to this question

Table 19. Question 27: How often do you report/publish data?

Publishing Frequency	Responses	Percentage
Daily	3	2
Weekly	2	2
Monthly	8	6
Annually	51	40
Every 2 years	10	8
As needed	53	41
As resources permit	30	23
Varies by project	27	21
Never	7	5
Total	129	100

Table 20. Question 28: How are the analyzed/summarized data made available?

Analyzed Data Access	Responses	Percentage
Can be downloaded from the web	26	20
Can be viewed on the web	24	19
Routine request made via the web and provided electronically	14	11
Special request via email or letter and provided electronically	81	64
Data are available via hard copy	48	38
Data generally are not available	19	15
Total	127	*

* Some gave multiple responses to this question

Table 21. Question 29: Does your monitoring program rely on data from others?

Reliance on Others?	Responses	Percentage
Yes	58	45
No	71	54
Unknown	1	1
Total	130	100

Table 22. Question 30: Are the data readily available on maps?

Map Available?	Responses	Percentage
Yes	34	25
No	57	44
Partial	38	29
Unknown	2	2
Total	131	100

Table 23. Question 31: Do data exist as GIS coverage?

GIS Coverage?	Responses	Percentage
Yes	54	42
No	64	49
Unknown	12	9
Total	130	100

Table 24. Question 32: What type of funding is used for the monitoring program?

Type of Funding	Responses	Percentage
Short term project, grants, temporary –2 years or less	48	39
Ongoing funding- reasonably expect funding to continue	76	61
Total	124	100

Question 33. What is the source of funding for this monitoring program? See Appendix C.

Question 34. Is the program implemented by multiple agencies? See Appendix C.

APPENDIX C

LIST OF WATERSHED HEALTH AND SALMON RECOVERY DATABASES REPORTED

Comprehensive Monitoring Survey Results

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Conservation Commission
Database	Statewide Salmon Habitat Limiting Factors Analysis
Database acronym	LFA
Contact	Ed Manary - 360-407-6236 - eman461@ecy.wa.gov
Overview of the monitoring program	ID habitat problems that are preventing natural spawning salmon populations from reaching their full potential.
Audience/customer/user	All parties interested in Salmon Habitat Restoration.
Objectives	ID those habitat factors limiting the production of naturally spawning salmon. Provide the information to all interested parties.
Authority	Title 77 RCW; Engrossed Substitute House Bill 2496; Section 10 (1998)
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Coarse Inventory; Effectiveness
Primary geographic focus	Select WRIAs
Geospatially referenced?	Partially
Salmon Recovery Region(s)	Lower Columbia; Middle Columbia; NE Washington; Puget Sound; Snake River; Upper Columbia; Washington Coast
Frequency of sample collection	Varies
Number of years data collected	Varies
Data content	Freshwater Surface Water Quality; Hydrology; Instream Habitat; Land Use; Marine/Estuarine Water Quality; Predation Of Salmonids; Riparian Habitat; Salmonid Passage; Salmonid Productivity; Waterway and Channel Modification
Other data	
Rate data quality/condition (0-18)	15
Rate design, scope, implementation (0-15)	15
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email; Web Viewable; Web Downloadable www.conserver.org/salmon/reports/index.shtml
Data contact person	Ed Manary - 360-407-6236 - eman461@ecy.wa.gov
How often do you analyze, summarize, compile raw data?	As Needed; As Resources Permit
Report/publish data?	As Needed; As Resources Permit
Analyzed/summarized data made available?	Web Downloadable; Web Viewable www.conserver.org/salmon/reports/index.shtml
Rely on data from others?	Yes
Data readily available on maps?	Yes
Data exist as GIS coverage?	Yes
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	State Parks
Database	Salmon Recovery Program – Resource Stewardship
Database acronym	
Contact	Paul Stasch - 360-902-0931 - paul.stasch@parks.wa.gov
Overview of the monitoring program	Assess salmonid habitat statewide in properties owned and/or managed by State Parks.
Audience/customer/user	State Parks managers, rangers, WDFW, the Northwest Indian Fisheries Commission and general public.
Objectives	Assess the quality of salmonid habitat within state parks and prioritize restoration and enhancement projects.
Authority	State Agency's Action Plan to Recover Salmon
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Coarse Inventory
Primary geographic focus	Statewide
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Lower Columbia; Middle Columbia; NE Washington; Puget Sound; Snake River; Upper Columbia; Washington Coast
Frequency of sample collection	Episodic
Number of years data collected	Less Than 1
Data content	Biological - other; Hydrology; Instream Habitat; Nearshore; Riparian Habitat; Salmonid Passage; Salmonid Productivity; Waterway and Channel Modification; Wetlands
Other data	
Rate data quality/condition (0-18)	18
Rate design, scope, implementation (0-15)	15
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email; Hard Copy
Data contact person	Paul Stasch - 360-902-0931 - paul.stasch@parks.wa.gov
How often do you analyze, summarize, compile raw data?	As Needed
Report/publish data?	As Needed
Analyzed/summarized data made available?	Email; Hard Copy
Rely on data from others?	Yes
Data readily available on maps?	No
Data exist as GIS coverage?	Yes
Type of funding	Short Term

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Washington State Department of Ecology
Database	Environmental Monitoring and Assessment Program – West Coast Pilot
Database acronym	WEMAP
Contact	Maggie Dutch - 360-407-6021 - mdut461@ecy.wa.gov
Overview of the monitoring program	The coastal component of Western EMAP applies EMAP's monitoring and assessment tools to create an integrated and comprehensive coastal monitoring program along the west coast. Water column measurements are combined with information about sediment characteristics and chemistry, benthic organisms, and data from fish trawls to describe the current estuarine condition.
Audience/customer/user	Those interested in coastal/estuarine conditions of Washington, the West Coast, and nationwide.
Objectives	The objectives of the Pilot are to describe the current ecological condition of estuaries in Washington, Oregon, Alaska, California, and Hawaii to work with the states and others to build a strong program of ecological monitoring which will lead to better management and protection of western estuaries; and, to develop the infrastructure in the Region and in the States to implement the monitoring program.
Authority	
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Coarse Inventory
Primary geographic focus	Marine Waters
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Puget Sound; Washington Coast
Frequency of sample collection	Annually
Number of years data collected	1 to 5
Data content	Marine/Estuarine Water Quality; Nearshore
Other data	
Rate data quality/condition (0-18)	15
Rate design, scope, implementation (0-15)	12
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email; Web Downloadable – Not yet available
Data contact person	Maggie Dutch - 360-407-6021 - mdut461@ecy.wa.gov
How often do you analyze, summarize, compile raw data?	Annually
Report/publish data?	Annually
Analyzed/summarized data made available?	Email; Web Downloadable – Not yet available
Rely on data from others?	Yes
Data readily available on maps?	Partial
Data exist as GIS coverage?	Yes
Type of funding	Short Term

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Washington State Department of Ecology
Database	Long-term Freshwater River and Stream Ambient Monitoring Program
Database acronym	
Contact	Rob Plotnikoff - 360-407-6687 - rplo461@ecy.wa.gov
Overview of the monitoring program	To assess water quality of fresh water rivers and streams in the State of Washington.
Audience/customer/user	The public, legislature, state, federal, and local officials, private consultants, scientists from government, private and academic institutions
Objectives	Characterize spatial and temporal patterns of water quality; assess where water quality may indicate change or emerging problems; provide and maintain long-term freshwater quality database.
Authority	RCW 90.48.260; 90.70.055; 90.70.060; 90.70.065
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Coarse Inventory; Effectiveness; Status Monitoring
Primary geographic focus	Statewide
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Lower Columbia; Middle Columbia; NE Washington; Non Salmon Recovery Areas; Puget Sound; Snake River; Upper Columbia; Washington Coast
Frequency of sample collection	Monthly
Number of years data collected	More than 5
Data content	Biological - other; Freshwater Surface Water Quality; Instream Habitat
Other data	
Rate data quality/condition (0-18)	17
Rate design, scope, implementation (0-15)	11
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email; Web Downloadable; Web Requested; Web Viewable www.ecy.wa.gov/programs/eap/fw_riv/rv_main.html www.ecy.wa.gov/pubs.shtm
Data contact person	Rob Plotnikoff - 360-407-6687 - rplo461@ecy.wa.gov
How often do you analyze, summarize, compile raw data?	Annually; Monthly
Report/publish data?	Annually; Monthly
Analyzed/summarized data made available?	Email; Web Downloadable; Web Requested; Web Viewable www.ecy.wa.gov/programs/eap/fw_riv/rv_main.html www.ecy.wa.gov/pubs.shtm
Rely on data from others?	No
Data readily available on maps?	Yes
Data exist as GIS coverage?	Yes
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Washington State Department of Ecology
Database	Marine Waters Monitoring for Puget Sound Ambient Monitoring Program
Database acronym	MWM - PSAMP
Contact	Jan Newton - 360-407-6675 - jnew461@ecy.wa.gov
Overview of the monitoring program	To assess water quality of marine waters in the State of Washington.
Audience/customer/user	The public; scientists from government, private and academic institutions.
Objectives	Characterize spatial and temporal patterns of marine water quality; assess where water quality may indicate change or emerging problems; provide and maintain long-term marine database.
Authority	RCW 90.48.260; 90.70.055; 90.70.060; 90.70.065
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Coarse Inventory; Status Monitoring
Primary geographic focus	Marine Waters; Statewide
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Puget Sound; Washington Coast
Frequency of sample collection	Monthly
Number of years data collected	More than 5
Data content	Biological – other; Climate and Ocean Conditions; Marine/Estuarine Water Quality
Other data	
Rate data quality/condition (0-18)	14
Rate design, scope, implementation (0-15)	11
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email; Web Downloadable; Web Requested; Web Viewable www.ecy.wa.gov/programs/eap/mar_wat/mwm_intr.html www.ecy.wa.gov/pubs.shtm
Data contact person	Jan Newton - 360-407-6675 - jnew461@ecy.wa.gov
How often do you analyze, summarize, compile raw data?	As Needed; As Resources Permit; Every 2 Yrs; Monthly
Report/publish data?	As Resources Permit; Every 2 Yrs
Analyzed/summarized data made available?	Email; Web Downloadable; Web Requested; Web Viewable www.ecy.wa.gov/programs/eap/mar_wat/mwm_intr.html www.ecy.wa.gov/pubs.shtm
Rely on data from others?	No
Data readily available on maps?	Yes
Data exist as GIS coverage?	Yes
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Washington State Department of Ecology
Database	Nonpoint Source Pollution Studies
Database acronym	NPS Studies
Contact	Will Kendra - 360-407-6698 - wken461@ecy.wa.gov
Overview of the monitoring program	Monitor and assess effects of nonpoint source pollution on surface and ground waters statewide.
Audience/customer/user	Citizens and their legislative representatives, state and local government officials, business and environmental interest groups, tribes, and US Environmental Protection Agency.
Objectives	Monitor environmental fate of pollutants discharged from nonpoint sources (urban, agriculture, and forest land runoff); recommend management strategies for nonpoint source pollution control.
Authority	RCW 90.48.260; RCW 90.54.030; USC 33.1254
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Effectiveness; Status Monitoring
Primary geographic focus	Statewide
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Lower Columbia; Middle Columbia; NE Washington; Non Salmon Recovery Areas; Puget Sound; Snake River; Upper Columbia; Washington Coast
Frequency of sample collection	Episodic
Number of years data collected	Varies
Data content	Freshwater Surface Water Quality; Ground Water Quality/Quantity
Other data	
Rate data quality/condition (0-18)	13
Rate design, scope, implementation (0-15)	11
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email; Hard Copy; Web Downloadable www.ecy.wa.gov/pubs.shtm
Data contact person	Darrel Anderson - 360-407-6453 - dand461@ecy.wa.gov
How often do you analyze, summarize, compile raw data?	As Needed
Report/publish data?	As Needed
Analyzed/summarized data made available?	Email; Hard Copy; Web Downloadable www.ecy.wa.gov/pubs.shtm
Rely on data from others?	Yes
Data readily available on maps?	No
Data exist as GIS coverage?	No
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Washington State Department of Ecology
Database	Puget Sound Ambient Monitoring Program – Sediment Component
Database acronym	PSAMP - Sed
Contact	Maggie Dutch - 360-407-6021 - mdut461@ecy.wa.gov
Overview of the monitoring program	The purpose of the PSAMP Sediment Component work is to characterize spatial and temporal trends in the condition of the sediments of Puget Sound via analysis of sediment chemistry, toxicity, and infaunal benthic community composition.
Audience/customer/user	All users of Puget Sound sediment data.
Objectives	Assess the health of Puget Sound and its resources and document geographic patterns in the condition of the Sound and its resources; document natural and human-caused changes over time in the ecological components of Puget Sound; through ongoing monitoring programs identify existing environmental problems and, where possible, identify the reasons for these problems; provide data and other information to assist the Puget Sound Action Team and others in measuring the success of environmental programs; support research activities by making available scientifically valid data.
Authority	RCW 90.48.260; 90.70.055; 90.70.060; 90.70.065; 43.21A.660; 90.48.420; 90.48.465; 77.85.210; 90.82.140
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Status Monitoring
Primary geographic focus	Marine Waters
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Puget Sound
Frequency of sample collection	Annually
Number of years data collected	More than 5
Data content	Marine/Estuarine Water Quality
Other data	
Rate data quality/condition (0-18)	15
Rate design, scope, implementation (0-15)	11
Charge money for the data?	Sometimes
Data sensitive or proprietary?	No
Raw data made available?	Email; Web Downloadable; Web Requested; Web Viewable www.ecy.wa.gov/programs/eap/mar_sed/msm_intr.html www.ecy.wa.gov/pubs.shtm
Data contact person	Sandra Aasen - 360-407-6980 - sgei461@ecy.wa.gov
How often do you analyze, summarize, compile raw data?	Annually; As Needed; As Resources Permit; Varies
Report/publish data?	Annually; As Needed; As Resources Permit; Varies
Analyzed/summarized data made available?	Email; Web Downloadable; Web Requested; Web Viewable www.ecy.wa.gov/programs/eap/mar_sed/msm_intr.html www.ecy.wa.gov/pubs.shtm
Rely on data from others?	Yes
Data readily available on maps?	Partial
Data exist as GIS coverage?	Unknown
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Washington State Department of Ecology
Database	Stream Flow Monitoring Program
Database acronym	
Contact	Brad Hopkins - 360-407-6686 - bhop461@ecy.wa.gov
Overview of the monitoring program	To measure stream flow in fresh water rivers and streams in the State of Washington.
Audience/customer/user	The public, legislature, state, federal and local officials, private consultants, scientists from government, private, and academic institutions.
Objectives	Measure and evaluate seasonal and long-term (inter-annual) temporal patterns in stream flow for salmon recovery and watershed planning purposes; compare actual stream flows to in-stream flow targets; provide near real-time stream flow data via the Web to improve knowledge of stream flows and facilitate near real-time decision making in regard to stream flow management; support TMDL development and implementation, and provide data to inform water quality assessments including determination of water quality violations.
Authority	RCW 90.48.260; 90.70.055; 90.70.060; 90.70.065 ESSB 6153
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Coarse Inventory; Effectiveness; Status Monitoring
Primary geographic focus	Statewide
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Lower Columbia; Middle Columbia; NE Washington; Non Salmon Recovery Areas; Puget Sound; Snake River; Upper Columbia; Washington Coast
Frequency of sample collection	Continuous
Number of years data collected	More than 5
Data content	Hydrology
Other data	
Rate data quality/condition (0-18)	13
Rate design, scope, implementation (0-15)	10
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email; Web Downloadable; Web Requested; Web Viewable www.ecy.wa.gov/programs/eap/flow/shu_main.html www.ecy.wa.gov/pubs.shtm
Data contact person	Brad Hopkins - 360-407-6686 - bhop461@ecy.wa.gov
How often do you analyze, summarize, compile raw data?	Annually; As Needed; Daily; Monthly
Report/publish data?	Annually; Daily
Analyzed/summarized data made available?	Email; Web Downloadable; Web Requested; Web Viewable www.ecy.wa.gov/programs/eap/flow/shu_main.html www.ecy.wa.gov/pubs.shtm
Rely on data from others?	No
Data readily available on maps?	Partial
Data exist as GIS coverage?	Yes
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Washington State Department of Ecology
Database	Total Maximum Daily Load Studies
Database acronym	TMDL Studies
Contact	Will Kendra - 360-407-6698 - wken461@ecy.wa.gov
Overview of the monitoring program	Monitor and assess state surface waters to determine pollutant load reductions needed to achieve compliance with state water quality standards.
Audience/customer/user	Citizens and their legislative representatives, state and local government officials, business and environmental interest groups, tribes, and US Environmental Protection Agency.
Objectives	Monitor pollutant loading and fate in impaired surface waters; estimate assimilative capacity of receiving waters for pollutant loading; recommend pollutant load reductions needed to achieve water quality standards.
Authority	RCW 90.48.260; USC 33.1313
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Effectiveness
Primary geographic focus	Statewide
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Lower Columbia; Middle Columbia; NE Washington; Non Salmon Recovery Areas; Puget Sound; Upper Columbia; Washington Coast
Frequency of sample collection	Episodic
Number of years data collected	Varies
Data content	Freshwater Surface Water Quality; Marine/Estuarine Water Quality
Other data	
Rate data quality/condition (0-18)	14
Rate design, scope, implementation (0-15)	12
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email; Hard Copy; Web Downloadable www.ecy.wa.gov/pubs.shtm
Data contact person	Will Kendra - 360-407-6698 - wken461@ecy.wa.gov
How often do you analyze, summarize, compile raw data?	As Needed
Report/publish data?	As Needed
Analyzed/summarized data made available?	Email; Hard Copy; Web Downloadable www.ecy.wa.gov/pubs.shtm
Rely on data from others?	Yes
Data readily available on maps?	No
Data exist as GIS coverage?	No
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Washington State Department of Ecology
Database	Toxic Pollution Studies
Database acronym	
Contact	Will Kendra - 360-407-6698 - wken461@ecy.wa.gov
Overview of the monitoring program	Monitor and assess water, sediment, soil, and fish/shellfish tissue statewide to determine toxic pollutant burdens.
Audience/customer/user	Citizens and their legislative representatives, state and local government officials, business and environmental interest groups, tribes, and US Environmental Protection Agency.
Objectives	Monitor source and environmental fate of toxicants released into the environment; recommend management strategies for toxic pollution control.
Authority	RCW 90.48.260; USC 33.1254
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Effectiveness; Status Monitoring
Primary geographic focus	Statewide
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Lower Columbia; Middle Columbia; NE Washington; Non Salmon Recovery Areas; Puget Sound; Snake River; Upper Columbia; Washington Coast
Frequency of sample collection	Episodic
Number of years data collected	Varies
Data content	Freshwater Surface Water Quality; Marine/Estuarine Water Quality
Other data	
Rate data quality/condition (0-18)	14
Rate design, scope, implementation (0-15)	12
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email; Hard Copy; Web Downloadable www.ecy.wa.gov/pubs.shtm
Data contact person	Dale Norton - 360-407-6765 - dnor461@ecy.wa.gov
How often do you analyze, summarize, compile raw data?	As Needed
Report/publish data?	As Needed
Analyzed/summarized data made available?	Email; Hard Copy; Web Downloadable www.ecy.wa.gov/pubs.shtm
Rely on data from others?	Yes
Data readily available on maps?	No
Data exist as GIS coverage?	No
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Washington State Department of Ecology
Database	Walla Walla Streamflow Monitoring
Database acronym	
Contact	John Covert - 360-456-6328 - jcov461@ecy.wa.gov
Overview of the monitoring program	Working with WDFW to monitor low-flow streamflow conditions at nine sites within the Walla Walla Watershed.
Audience/customer/user	WDFW grant
Objectives	Establish nine streamflow monitoring sites, install continuous-recording equipment, develop rating curve at each site, analyze data and provide discharge curves for monitored sites.
Authority	
Relates to watershed health and salmon recovery	
Program ongoing?	Yes
Type of monitoring	Status Monitoring
Primary geographic focus	Select Reaches
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Snake River
Frequency of sample collection	Continuous
Number of years data collected	1 to 5
Data content	Hydrology
Other data	
Rate data quality/condition (0-18)	8
Rate design, scope, implementation (0-15)	
Charge money for the data?	Sometimes
Data sensitive or proprietary?	No
Raw data made available?	Email
Data contact person	John Covert - 360-456-6328 - jcov461@ecy.wa.gov
How often do you analyze, summarize, compile raw data?	As Needed
Report/publish data?	Annually
Analyzed/summarized data made available?	Email
Rely on data from others?	Yes
Data readily available on maps?	No
Data exist as GIS coverage?	No
Type of funding	Short Term

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Washington State Department of Ecology
Database	Well Log Imaging System (Intranet/Web Access to Well Log Data and Images)
Database acronym	
Contact	Ed Young - 360-407-6644 - eyou461@ecy.wa.gov
Overview of the monitoring program	This system provides ways to search for, find, view, print, send and save water well reports and images. Both GIS navigation and text search pages are built in. They produce lists of well logs within user-defined geographic areas or according to user-defined search criteria (including geographic, depth, diameter, township, section range, address, well tag ID, etc.) Users can view the images of well reports and see the geographic location of the well on the map. The system includes the ability to input new well log data and images and modify existing ones. The user does everything through the web browser using a common look and feel. Updates can be done from each of four regional offices and from headquarters at scan stations. The updates are instantly available statewide from any PC on the Ecology wide area network.
Audience/customer/user	The initial audience is Ecology staff statewide via Wide Area Network. The next phase will allow internet access to a wide audience of users.
Objectives	Provide on-line Intranet Web access to all available well log data and images via the web. The next phase is to provide Internet access and additional feature enhancements. The greatest need is funding for data cleaning so the information is not only the most accurate available, but also capable of integrating with other agency and regional well monitoring systems.
Authority	RCW 18.104.050
Relates to watershed health and salmon recovery	Indirectly Supports
Program ongoing?	Yes
Type of monitoring	Coarse Inventory
Primary geographic focus	Statewide
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Lower Columbia; Middle Columbia; NE Washington; Non Salmon Recovery Areas; Puget Sound; Snake River; Upper Columbia; Washington Coast
Frequency of sample collection	Continuous
Number of years data collected	More than 5
Data content	Ground Water Quality/Quantity
Other data	
Rate data quality/condition (0-18)	15
Rate design, scope, implementation (0-15)	10
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email http://aww.ads.welllog/
Data contact person	Ed Young - 360-407-6644 - eyou461@ecy.wa.gov
How often do you analyze, summarize, compile raw data?	
Report/publish data?	As Needed
Analyzed/summarized data made available?	
Rely on data from others?	Yes
Data readily available on maps?	Yes
Data exist as GIS coverage?	Yes
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Washington State Department of Fish and Wildlife
Database	Commercial Fish Tickets
Database acronym	LIFT
Contact	Lee Hoines - 360-902-2310 - Hoinelj@dfw.wa.gov
Overview of the monitoring program	All commercial fishery products landed in the State of Washington.
Audience/customer/user	Users of commercial fish harvest numbers, fishing effort, species composition, fishery value data.
Objectives	Capture information related to all commercial harvest of food fish and/or shellfish landed in the state.
Authority	Other; RCW/WAC; Tribal
Relates to watershed health and salmon recovery	Indirectly Supports
Program ongoing?	Yes
Type of monitoring	Unknown
Primary geographic focus	Multi-State/International
Geospatially referenced?	No
Salmon Recovery Region(s)	Lower Columbia; Middle Columbia; NE Washington; Non Salmon Recovery Areas; Puget Sound; Snake River; Upper Columbia; Washington Coast
Frequency of sample collection	Episodic
Number of years data collected	More than 5
Data content	Harvest
Other data	
Rate data quality/condition (0-18)	17
Rate design, scope, implementation (0-15)	15
Charge money for the data?	Sometimes
Data sensitive or proprietary?	Yes
Raw data made available?	Email; Hard Copy
Data contact person	Lee Hoines - 360-902-2310 - Hoinelj@dfw.wa.gov
How often do you analyze, summarize, compile raw data?	As Needed
Report/publish data?	As Needed
Analyzed/summarized data made available?	Email; Hard Copy
Rely on data from others?	Yes
Data readily available on maps?	No
Data exist as GIS coverage?	No
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Washington State Department of Fish and Wildlife
Database	Fishery Monitoring –Coded Wire Tag Recoveries
Database acronym	CWT
Contact	Susan Markey - 360-902-2777 - markeslm@dfw.wa.gov
Overview of the monitoring program	Provides counts of the observed and estimated numbers of returning CWT salmon and steelhead which are harvested or collected in Washington waters.
Audience/customer/user	Used by fisheries and hatchery managers for calculating survival of fish stocks and assessing stock composition in mixed stock fisheries.
Objectives	Produce accurate individual recovery data which is then expanded for sampling fraction in a consistent and defensible method.
Authority	Internal
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Status monitoring
Primary geographic focus	Statewide
Geospatially referenced?	No
Salmon Recovery Region(s)	Lower Columbia; Middle Columbia; Non Salmon Recovery Areas; Puget Sound; Snake River; Upper Columbia; Washington Coast
Frequency of sample collection	Continuous
Number of years data collected	More than 5
Data content	Harvest, salmonid productivity
Other data	None
Rate data quality/condition (0-18)	14
Rate design, scope, implementation (0-15)	11
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email, hard copy, web downloadable, web viewable
Data contact person	Susan Markey - 360-902-2777 - markeslm@dfw.wa.gov
How often do you analyze, summarize, compile raw data?	Annually, As needed
Report/publish data?	Annually, As needed
Analyzed/summarized data made available?	Email, hard copy, web downloadable, web viewable www.rmis.org
Rely on data from others?	Yes
Data readily available on maps?	No
Data exist as GIS coverage?	Unknown
Type of funding	Federal, long term

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Washington State Department of Fish and Wildlife
Database	Hatcheries Data
Database acronym	
Contact	John Kerwin – 360-902-2681 - kerwijek@dfw.wa.gov
Overview of the monitoring program	
Audience/customer/user	Natural resource managers, recreational anglers, local jurisdictions, tribal, state and federal agencies.
Objectives	Track hatchery release and capture (return) data.
Authority	RCW 75.08.080 Puget Sound Salmon Management Plan
Relates to watershed health and salmon recovery	
Program ongoing?	Yes
Type of monitoring	Status Monitoring
Primary geographic focus	Statewide
Geospatially referenced?	No
Salmon Recovery Region(s)	Lower Columbia; Middle Columbia; NE Washington; Non Salmon Recovery Areas; Puget Sound; Snake River; Upper Columbia; Washington Coast
Frequency of sample collection	Varies
Number of years data collected	More than 5
Data content	Hydrology; Hatchery - disease, genetics; Hatchery - fish release, capture
Other data	
Rate data quality/condition (0-18)	16
Rate design, scope, implementation (0-15)	
Charge money for the data?	No
Data sensitive or proprietary?	Yes
Raw data made available?	Web Viewable; Email; Not Available
Data contact person	Kyle Adicks - 360-902-2669 - adickvka@dfw.wa.gov
How often do you analyze, summarize, compile raw data?	Monthly; Annually; As Resources Permit
Report/publish data?	Weekly; Monthly; Annually
Analyzed/summarized data made available?	Web Viewable; Email; Not Available
Rely on data from others?	No
Data readily available on maps?	No
Data exist as GIS coverage?	No
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Washington State Department of Fish and Wildlife
Database	Puget Sound Ambient Monitoring Program Fish Component
Database acronym	PSAMP FC
Contact	Sandra O'Neill - 360-902-2843 - oneilsmo@dfw.wa.gov
Overview of the monitoring program	General purpose is to monitor the status and trends of fish health in Puget Sound. This Component fits into the larger PSAMP effort, which is focused on ecosystem health. We generally monitor temporal and spatial trends of toxics, and effects from exposure to toxics, in marine and anadromous fishes. The Fish Component also provides fish toxics data to human health agencies for their assessments.
Audience/customer/user	Educated lay people, legislators, natural resource and health Agency managers, and the scientific/technical community.
Objectives	Measure toxics in selected species (e.g., salmon, English sole, rockfish, herring) over a broad geographic area in Puget Sound, and through time. Monitor, measure and identify specific effects from exposure to toxics.
Authority	Legislative mandate via Puget Sound Water Quality Action Team
Relates to watershed health and salmon recovery	
Program ongoing?	Yes
Type of monitoring	Coarse inventory; Effectiveness; Status monitoring
Primary geographic focus	Marine Waters
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Puget Sound
Frequency of sample collection	Alternating Years
Number of years data collected	More than 5
Data content	Biological – other; Marine/Estuarine Water Quality
Other data	
Rate data quality/condition (0-18)	15
Rate design, scope, implementation (0-15)	9
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email; Hard Copy
Data contact person	Sandra O'Neill - 360-902-2843 - oneilsmo@dfw.wa.gov
How often do you analyze, summarize, compile raw data?	Varies; As Needed
Report/publish data?	Annually
Analyzed/summarized data made available?	Email
Rely on data from others?	Yes
Data readily available on maps?	Yes
Data exist as GIS coverage?	Yes
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Washington State Department of Fish and Wildlife
Database	Puget Sound Ambient Monitoring Program--Marine Birds & Mammals
Database acronym	PSAMP – Bird/Mammal
Contact	David Nysewander - 360-902-8134 - nysewdrn@dfw.wa.gov
Overview of the monitoring program	Provides trends, distribution, and abundance of select species of marine birds and marine mammals utilizing Puget Sound and to contribute information to assess overall health of the Puget Sound ecosystem.
Audience/customer/user	Requests for PSAMP marine bird and marine mammal data have arisen from a mixture of agencies, universities, public, and non-governmental organizations (NGO). Most recently, these have included government entities such as Canadian Wildlife Service, Canada, Department of Fisheries and Oceans, U.S. Fish and Wildlife Service, National Marine Fisheries Service, Puget Sound Action Team, other agencies in PSAMP, state legislature, university staff, Audubon, The Nature Conservancy, and People for Puget Sound. Data are also requested from numerous consulting firms associated with needs arising from development permits and requirements. WDFW programs and the public rely on this database or its products because of concerns related to oil spill effects or mitigation, status of threatened and endangered species, update of priority habitat and species databases (PHS), resolution of conflicts with commercial fisheries and ESA listed species, and varied requests from county/local governments and planning groups.
Objectives	Specific objectives include collection of population trend data using best available science, creation and maintenance of digital databases and GIS coverages, and production of analyses and other report and map products. Documentation of population indices gathered by standardized aerial methodologies and specialized survey expertise are intended to be continued over a multi-year effort, allowing the data to be used for analysis of patterns and changes in distribution, abundance, density and trends for the key indicator marine species selected.
Authority	RCW 90-71
Relates to watershed health and salmon recovery	Indirectly Supports
Program ongoing?	Yes
Type of monitoring	Status monitoring
Primary geographic focus	Statewide, Select WRIAs
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Puget Sound, Washington Coast
Frequency of sample collection	Seasonal
Number of years data collected	More than 5
Data content	Biological marine mammals; Biological other; nearshore
Rate data quality/condition (0-18)	15
Rate design, scope, implementation (0-15)	14
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email, web not available
Data contact person	David Nysewander - Phone 360-902-8134 – nysewdrn@dfw.wa.gov
How often do you analyze, summarize, compile raw data?	Annually, As needed
Report/publish data?	As resources permit
Analyzed/summarized data made available?	Email, hard copy, web downloadable, web viewable www.wa.gov/wdfw
Rely on data from others?	Yes
Data readily available on maps?	Yes
Data exist as GIS coverage?	Yes
Type of funding	State, long term

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Washington State Department of Fish and Wildlife
Database	Puget Sound Bottom Trawl Surveys
Database acronym	Trawl
Contact	Wayne A. Palsson - Phone 425-379-2313 - palsswap@dfw.wa.gov
Overview of the monitoring program	The purpose of the bottom trawl survey is to estimate the populations of bottomfish and macro-invertebrates within the various basins of the inland marine waters of Washington. A chartered fishing vessel is used to tow a research bottom trawl at randomly-selected stations stratified by depth. The catch is processed by identifying, counting and weighing all species encountered. Their numbers and weights are divided by the area swept by the net at each station. These densities are then averaged and the population estimated by multiplying the average density by the area of the region and stratum. Regions are rotated over the years such that most regions are surveyed every three years.
Audience/customer/user	State and tribal ground fish managers, PSAMP scientists, Marine Science community.
Objectives	Provide estimates of key species with a percent coefficient of variation of 30% or less. Provide estimates of the size composition of key marine fish and shellfish. Evaluate trends over time.
Authority	RCW
Relates to watershed health and salmon recovery	No Relationship
Program ongoing?	Yes
Type of monitoring	Status monitoring
Primary geographic focus	Marine waters
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Puget Sound
Frequency of sample collection	Annually
Number of years data collected	More than 5
Data content	Biological – Other
Other data	Bottomfish, especially flatfishes, spiny dogfish, sharks, Pacific cod, Dungeness crab, and many other species.
Rate data quality/condition (0-18)	14
Rate design, scope, implementation (0-15)	10
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email
Data contact person	Wayne A. Palsson - Phone 425-379-2313 - palsswap@dfw.wa.gov
How often do you analyze, summarize, compile raw data?	Annually
Report/publish data?	Annually
Analyzed/summarized data made available?	Email
Rely on data from others?	No
Data readily available on maps?	Yes
Data exist as GIS coverage?	Yes
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Washington State Department of Fish and Wildlife
Database	Puget Sound Sampling Program/Ocean Sampling Program
Database acronym	PSSP/OSP
Contact	Douglas Milward - 360-902-2739 - milwadam@dfw.wa.gov
Overview of the monitoring program	Sport and Commercial Salmon fish sampling for state marine waters and sampling for sport caught marine fish in state marine waters.
Audience/customer/user	WDFW, NMFS, Treaty Tribes, PSMFC
Objectives	Recovery of coded wire tag information, catch and effort information, and biological information.
Authority	RCW/WAC; Tribal
Relates to watershed health and salmon recovery	
Program ongoing?	Yes
Type of monitoring	Effectiveness; Status Monitoring
Primary geographic focus	Statewide
Geospatially referenced?	No
Salmon Recovery Region(s)	Lower Columbia; Puget Sound; Washington Coast
Frequency of sample collection	Continuous
Number of years data collected	More than 5
Data content	Biological – other; Harvest; Salmonid Productivity
Other data	
Rate data quality/condition (0-18)	17
Rate design, scope, implementation (0-15)	14
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email
Data contact person	Douglas Milward - 360-902-2739 - milwadam@dfw.wa.gov
How often do you analyze, summarize, compile raw data?	Annually
Report/publish data?	Annually
Analyzed/summarized data made available?	Email; Web Downloadable www.wa.gov/wdfw/fish/agedata
Rely on data from others?	Yes
Data readily available on maps?	No
Data exist as GIS coverage?	No
Type of funding	

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Washington State Department of Fish and Wildlife
Database	Salmon and Steelhead Habitat Inventory and Assessment Program
Database acronym	SSHAP
Contact	David Johnson - 360-902-2603 - johnsdhj@dfw.wa.gov
Overview of the monitoring program	Salmon habitat and distribution data in Washington. It is the Mission of the Salmon and Steelhead Habitat Inventory and Assessment Project (SSHAP) to provide a statewide, long-term information system that assembles, synthesizes and delivers detailed salmonid distribution and habitat information to users, thus providing a key tool in efforts to restore and conserve salmonids in Washington State.
Audience/customer/user	SSHAP delivers data and summary statistics for a wide range of users. The predominant audience is natural resource managers, data programs, scientists, and groups involved in the recovery planning, restoration, monitoring and mitigation of aquatic systems in Washington. This reflects users from local, county, state, tribal, federal and NGO jurisdictions.
Objectives	SSHAP is a partnership-based information system designed to characterize the distribution and habitat conditions of salmonid stocks in Washington at the 1:24,000 scale. The SSHAP system delineates streams and estuary/nearshore marine waters into segments based on physical characteristics and habitat types. These segments provide a consistent spatial framework for integrating a wide variety of habitat information and subsequent analyses. The SSHAP system quantitatively characterizes habitat conditions, maps stock distribution and status, and links habitat conditions and stock distribution with productivity modeling efforts. SSHAP is designed to provide these data in map and digital formats for statewide, ESU, watershed, and local planning and conservation actions.
Authority	RCW/WAC ESB 6188; SSB 5595; SSB 5637; SSB 2496; SSB 2514
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Coarse Inventory; Effectiveness; Status Monitoring
Primary geographic focus	Statewide; Select WRIs
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Lower Columbia; Puget Sound; Washington Coast
Frequency of sample collection	Varies
Number of years data collected	1 to 5
Data content	Freshwater Surface Water Quality; Geologic; Hydrology; Instream Habitat; Land Use; Nearshore; Riparian Habitat; Salmonid Passage; Salmonid Productivity; Waterway and Channel Modification; Wetlands
Other data	
Rate data quality/condition (0-18)	17
Rate design, scope, implementation (0-15)	13
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Hard Copy; Web Downloadable www.wa.gov/wdfw/hab/sshiap/index.htm
Data contact person	David Johnson - 360-902-2603 - johnsdhj@dfw.wa.gov
How often do you analyze, summarize, compile raw data?	As Needed
Report/publish data?	As Resources Permit
Analyzed/summarized data made available?	Hard Copy; Web Downloadable www.wa.gov/wdfw/hab/sshiap/index.htm
Rely on data from others?	Yes
Data readily available on maps?	Yes
Data exist as GIS coverage?	Yes
Type of funding	Short Term

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Washington State Department of Fish and Wildlife
Database	Salmonid Spawning Ground Survey Database
Database acronym	SGS
Contact	Dick O'Connor - 360-902-2778 - oconnrjo@dfw.wa.gov
Overview of the monitoring program	The Salmonid Spawning Ground Survey Database is built from a series of seasonal, systematic surveys of both index and "supplemental" stream sections for evidence of adult salmonid spawning activity. This database contains historical and current data from Puget Sound, the Straits of Juan de Fuca, and the Washington Coast. Counts of adult fish and redds (nests) are recorded, which provide some of the raw material for generating spawner escapement estimates by species and stock. Escapement estimates are a major component of our assessment of the status (health) of each stock.
Audience/customer/user	Information from both the database and the resulting escapement estimates is used by harvest managers, stock biologists, international salmon management technical committees, modelers, and others from state, federal, tribal and local entities.
Objectives	The objective of the sampling program and resultant analysis is to provide defensible, science-based measures of health for key salmon stocks to support the most effective management and recovery programs possible.
Authority	Internal
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Status Monitoring
Primary geographic focus	Select WRIAs
Geospatially referenced?	Partially
Salmon Recovery Region(s)	Puget Sound; Washington Coast
Frequency of sample collection	Seasonally
Number of years data collected	More Than 5
Data content	Salmonid Productivity
Other data	
Rate data quality/condition (0-18)	16
Rate design, scope, implementation (0-15)	14
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email; Hard Copy
Data contact person	Dick O'Connor - 360-902-2778 - oconnrjo@dfw.wa.gov
How often do you analyze, summarize, compile raw data?	As Needed; Annually
Report/publish data?	As Needed
Analyzed/summarized data made available?	
Rely on data from others?	Yes
Data readily available on maps?	No
Data exist as GIS coverage?	No
Type of funding	

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Washington State Department of Fish and Wildlife
Database	Salmonid Stock Inventory Database
Database acronym	SaSI
Contact	Ann Blakley - 360-902-2712 - blaklab@dfw.wa.gov
Overview of the monitoring program	The SaSI database contains information on salmonid stock identification, stock status and life history in Washington State. This information can be summarized to track the progress of recovery efforts throughout the state.
Audience/customer/user	SaSI and the SaSI database have a broad audience, including both WDFW staff and external customers. Such customers include federal agencies (particularly the National Marine Fisheries Service, U.S Fish and Wildlife Service, and the USDA Forest Service), Washington tribes, other state agencies (including DNR, Ecology, Agriculture, IAC and the Conservation Commission), county and municipal governments, consultants, non-governmental organizations (particularly groups advocating for conservation of fish, wildlife and habitat), students and interested citizens. More recently groups involved with stock/habitat recovery efforts such as HSRG, TRT's, Scorecard, lead entities, Lower Columbia Salmon Recovery Board made use of SaSI.
Objectives	The SaSI database provides information on individual salmonid stocks including spawning location, spawn timing, genetics information, stock status and data used to assess status (escapements, juvenile data, harvest) and agency contacts. These data have been used to help prioritize SRFB-funded landed acquisition proposals, in NMFS Biological Opinions, Habitat Conservation Plans and ESA Section 4(d) rule development, prioritizing scoping for Clean Water Act TMDL's, support in the listing of degraded water bodies under Section 303(d) of the CWA, as reference material in Ecology's Comprehensive Monitoring Strategy for Measuring Salmon Recovery and Watershed Health, addressing in-stream flow protection needs, enforcement of water measurements requirements for water rights, qualifying for SRFB, Lead Entity, CREP, BPA, LCFRB and Jobs for the Environment funding, making fisheries management decisions, prioritizing fish passage barriers for repair, influencing decisions made by FERC and the Washington State Energy Facility Site Evaluation Council, producing Conservation Commission Limiting Factors Analyses, using the Oil Spill Compensation Model for Damage Assessments, WDFW Public Information projects, watershed planning under the HB2514 and reviewing shoreline permit applications.
Authority	Other
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Status monitoring
Primary geographic focus	Statewide
Geospatially referenced?	No
Salmon Recovery Region(s)	Lower Columbia; Middle Columbia; NE Washington; Non Salmon Recovery Areas; Puget Sound; Snake River; Upper Columbia; Washington Coast
Frequency of sample collection	Annually
Number of years data collected	Varies
Data content	Harvest; Salmonid Productivity
Other data	
Rate data quality/condition (0-18)	
Rate design, scope, implementation (0-15)	
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email; Hard Copy
Data contact person	Ann Blakley - 360-902-2712 - blaklab@dfw.wa.gov

How often do you analyze, summarize, compile raw data?	Varies
Report/publish data?	Varies
Analyzed/summarized data made available?	Email
Rely on data from others?	Yes
Data readily available on maps?	Yes
Data exist as GIS coverage?	Yes
Type of funding	

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Washington State Department of Fish and Wildlife
Database	Smolt Monitoring
Database acronym	SM
Contact	Dave Seiler - 360-902-2784 - seiledes@dfw.wa.gov
Overview of the monitoring program	Quantifies the annual freshwater production of selected species and stocks of wild salmon.
Audience/customer/user	Fishery co-managers, state, federal, and local government agencies.
Objectives	Assess annual juvenile production of selected wild salmon stocks. Explain inter-annual and inter-system differences in juvenile production as a function of habitat quantity/quality, environmental factors, parent spawner abundance, and land-use.
Authority	Internal
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Status monitoring
Primary geographic focus	Select watersheds, Select WRIAs
Geospatially referenced?	No
Salmon Recovery Region(s)	Lower Columbia; Puget Sound; Snake River; Upper Columbia; Washington Coast
Frequency of sample collection	Continuous
Number of years data collected	Varies
Data content	Salmonid freshwater productivity
Other data	None
Rate data quality/condition (0-18)	12
Rate design, scope, implementation (0-15)	6
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email, hard copy not web available
Data contact person	Mark Hino - 360-902-2753 - hinomkh@dfw.wa.gov
How often do you analyze, summarize, compile raw data?	Annually, As resources permit
Report/publish data?	Annually, As resources permit
Analyzed/summarized data made available?	Email, hard copy, web not available
Rely on data from others?	Yes
Data readily available on maps?	No
Data exist as GIS coverage?	No
Type of funding	State/federal, long term

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Washington State Department of Fish and Wildlife
Database	Sport Catch Estimates from catch record cards
Database acronym	Sport CRC
Contact	Terrie Manning - 360-902-2708 - mannitam@dfw.wa.gov
Overview of the monitoring program	Annual post harvest estimates of salmon caught by recreational anglers. The estimates are produced using the harvest reported on sport catch record cards which are required to be returned to WDFW at the end of the fishing year.
Audience/customer/user	Statewide salmon managers, Tribes, Governor's Salmon Recovery Office.
Objectives	To provide allocation to treaty and non-treaty fisheries as well as for fisheries management and to evaluate stock strengths and status.
Authority	Other; RCW 77 and WAC 220-56-175; International Treaty
Relates to watershed health and salmon recovery	Indirectly Supports
Program ongoing?	Yes
Type of monitoring	Unknown
Primary geographic focus	Statewide
Geospatially referenced?	No
Salmon Recovery Region(s)	Lower Columbia; Middle Columbia; NE Washington; Non Salmon Recovery Areas; Puget Sound; Snake River; Upper Columbia; Washington Coast
Frequency of sample collection	Annually
Number of years data collected	More than 5
Data content	Harvest
Other data	
Rate data quality/condition (0-18)	10
Rate design, scope, implementation (0-15)	12
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Not Available
Data contact person	Terrie Manning - 360-902-2708 - mannitam@dfw.wa.gov
How often do you analyze, summarize, compile raw data?	Annually
Report/publish data?	As Resources Permit; Varies
Analyzed/summarized data made available?	Email; Web Downloadable www.wa.gov/wdfw/fishcorn.htm
Rely on data from others?	Yes
Data readily available on maps?	No
Data exist as GIS coverage?	No
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Washington State Department of Fish and Wildlife
Database	StreamNet Fish Presence/Use Data
Database acronym	
Contact	Dick O'Connor - 360-902-2778 - oconnrjo@dfw.wa.gov
Overview of the monitoring program	The StreamNet Project funded the creation of a statewide GIS layer of salmonid presence, spawning, and rearing reaches compiled onto the 1:100,000 resolution routed streams layer for Washington state. These data represent extrapolated fish presence and use type data for anadromous salmonids (including bull trout).
Audience/customer/user	Users of salmonid presence/use data include WDFW, other state agencies, federal, local and tribal entities, consultants, private land managers, watershed groups, etc.
Objectives	Provide a generalized summary of salmonid presence and use type by species to guide fish management practices, stock status determinations, and land management decision-making.
Authority	Internal
Relates to watershed health and salmon recovery	Indirectly Supports
Program ongoing?	Yes
Type of monitoring	Coarse Inventory
Primary geographic focus	Statewide
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Lower Columbia; Middle Columbia; NE Washington; Non Salmon Recovery Areas; Puget Sound; Snake River; Upper Columbia; Washington Coast
Frequency of sample collection	Varies
Number of years data collected	Varies
Data content	Salmonid Productivity
Other data	
Rate data quality/condition (0-18)	13
Rate design, scope, implementation (0-15)	10
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email; Web Downloadable; Web Requested www.streamnet.org/online-data/GISData.html
Data contact person	Martin Hudson - 360-902-2487 - hudsomgh@dfw.wa.gov
How often do you analyze, summarize, compile raw data?	As Needed
Report/publish data?	As Needed
Analyzed/summarized data made available?	
Rely on data from others?	Yes
Data readily available on maps?	Yes
Data exist as GIS coverage?	Yes
Type of funding	Short Term

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Washington State Department of Fish and Wildlife
Database	Video-Acoustic Surveys for Rockfish and Lingcod
Database acronym	VAT
Contact	Wayne A. Palsson - 425-379-2313 - palsswap@dfw.wa.gov
Overview of the monitoring program	The purpose of the video-acoustic survey is to estimate the populations of rockfish, lingcod, and other fish and shellfish associated with rocky habitats within the various basins of the inland marine waters of Washington. A WDFW vessel is used to deploy a quantitative video camera and scientific echosounder at randomly-selected rocky habitat stations in the nearshore zone. These devices are used to estimate fish density and describe habitat at the selected station. The station densities are averaged and the population estimated by multiplying the average density by the area of the region and stratum. Regions are rotated over the years such that most regions are surveyed every three years.
Audience/customer/user	State and tribal ground fish managers, PSAMP scientists, Marine Science community, Marine Reserve designers, County MRCs.
Objectives	Provide estimates of key species with a percent coefficient of variation of 30% or less. Provide estimates of the size composition of key marine fish and shellfish. Evaluate trends over time. Map rocky habitat. Determine the relationship between key species and habitat factors.
Authority	RCW/WAC
Relates to watershed health and salmon recovery	No Relationship
Program ongoing?	Yes
Type of monitoring	Status monitoring
Primary geographic focus	Marine waters
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Puget Sound
Frequency of sample collection	Annually
Number of years data collected	More than 5
Data content	Biological - Other
Other data	Bottom fish especially copper, quillback, brown and other rockfishes, lingcod, kelp greenling, invertebrates including red and green sea urchins and sea cucumbers
Rate data quality/condition (0-18)	10
Rate design, scope, implementation (0-15)	10
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email, not web available
Data contact person	Wayne A. Palsson - Phone 425-379-2313 - palsswap@dfw.wa.gov
How often do you analyze, summarize, compile raw data?	Annually
Report/publish data?	Annually
Analyzed/summarized data made available?	Email, web not available
Rely on data from others?	No
Data readily available on maps?	Yes
Data exist as GIS coverage?	Yes
Type of funding	State/federal, long term

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Washington State Department of Fish and Wildlife
Database	Washington State Fish Passage Barrier and Surface Water Diversion Screening Database
Database acronym	SSHEARbase
Contact	Brian Benson – 360-902-2570 – bensoblb@dfw.wa.gov
Overview of the monitoring program	SSHEARbase includes data compiled from several WDFW and non-WDFW barrier and screening inventory efforts. The data are statewide in scope but do not represent a comprehensive or complete inventory. Data are updated continually as inventory efforts are ongoing. The inventory efforts are intended to locate, identify, and prioritize correction of man-made fish passage barriers and improperly screened surface water diversions. Identifying and correcting fish passage barriers and improperly screened diversions are key components of salmon recovery.
Audience/customer/user	The data may be used by any group interested in salmon and habitat recovery. Data have been provided to SSHIAP, Conservation Commission limiting factors analysis, regional fisheries enhancement groups, counties, cities, tribes, etc.
Objectives	WDFW uses the data to identify force account fish passage barrier correction projects, particularly those of a high-risk nature and those owned by WDFW and WSDOT. The data are also used to track where inventory efforts have occurred.
Authority	Internal; RCW 77.55.060; RCW 77.55.040; RCW 77.55.100
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Coarse inventory; Status monitoring
Primary geographic focus	Statewide
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Lower Columbia; Middle Columbia; NE Washington; Non Salmon Recovery Areas; Puget Sound; Snake River; Upper Columbia; Washington Coast
Frequency of sample collection	Varies
Number of years data collected	More than 5
Data content	Other; Salmonid Passage
Other data	Surface water diversion screening for salmonid protection.
Rate data quality/condition (0-18)	13
Rate design, scope, implementation (0-15)	11
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email
Data contact person	Brian Benson – 360-902-2570 – bensoblb@dfw.wa.gov
How often do you analyze, summarize, compile raw data?	Annually; As Needed
Report/publish data?	Annually; As Needed
Analyzed/summarized data made available?	Email
Rely on data from others?	Yes
Data readily available on maps?	No
Data exist as GIS coverage?	Yes
Type of funding	

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Washington State Department of Natural Resources
Database	Aquatic Lands Enhancement Account Grant Program
Database acronym	ALEA
Contact	Bob Brandow - 360-902-1039 - Robert.brandow@wadnr.gov
Overview of the monitoring program	Monitoring is generally associated with grant funded projects related to acquisitions and restorations of aquatic lands.
Audience/customer/user	
Objectives	
Authority	RCW 79.24.580
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Effectiveness
Primary geographic focus	Statewide
Geospatially referenced?	Yes
Salmon Recovery Region(s)	NE Washington; Non Salmon Recovery Areas; Puget Sound; Upper Columbia; Washington Coast
Frequency of sample collection	Varies
Number of years data collected	Less than 1
Data content	Ground Water Quality/Quantity; Instream Habitat; Marine/Estuarine Water Quality; Nearshore; Riparian Habitat; Salmonid Passage; Salmonid Productivity; Upland Habitat; Waterway and Channel Modification; Wetlands
Other data	
Rate data quality/condition (0-18)	7
Rate design, scope, implementation (0-15)	
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Not Available
Data contact person	Bob Brandow - 360-902-1039 - Robert.brandow@wadnr.gov
How often do you analyze, summarize, compile raw data?	As Resources Permit
Report/publish data?	Annually
Analyzed/summarized data made available?	Not Available
Rely on data from others?	Yes
Data readily available on maps?	No
Data exist as GIS coverage?	No
Type of funding	Short Term

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Washington State Department of Natural Resources
Database	Dredged Material Management Program
Database acronym	DMMP
Contact	Robert Brenner - 360-902-1083 - robert.brenner@wadnr.gov
Overview of the monitoring program	DMMP is tasked with management of designated open-water dredged material disposal sites in Puget Sound and coastal Washington. The organization is a cooperative agreement between US Army Corps of Engineers, US EPA Region 10, and the WA Departments of Ecology and Natural Resources. Dredged materials destined for open water disposal are evaluated for suitability, dredging and disposal activities are monitored for conformity to permit specifics, and disposal sites are environmentally monitored to evaluate environmental impacts.
Audience/customer/user	The target audience is the dredging community of Puget Sound and coastal Washington and those environmental groups that are concerned with dredging, dredged material disposal, and related impacts to the aquatic environment.
Objectives	The primary objective is to prevent detrimental environmental effects related to the disposal of dredged material at designated open-water disposal sites.
Authority	RCW 79.90.550, 79.90.555, 79.90.560; WAC 332-30-166
Relates to watershed health and salmon recovery	No Relationship
Program ongoing?	Yes
Type of monitoring	Effectiveness
Primary geographic focus	Statewide
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Puget Sound; Washington Coast
Frequency of sample collection	Varies
Number of years data collected	More than 5
Data content	Geologic; Marine/Estuarine Water Quality
Other data	
Rate data quality/condition (0-18)	12
Rate design, scope, implementation (0-15)	12
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email; Hard Copy
Data contact person	Robert Brenner - 360-902-1083 robert.brenner@wadnr.gov
How often do you analyze, summarize, compile raw data?	Annually
Report/publish data?	Every 2 Yrs
Analyzed/summarized data made available?	Web Downloadable; Web Viewable www.nws.usace.army.mil/dmmo/homepage.htm
Rely on data from others?	No
Data readily available on maps?	Yes
Data exist as GIS coverage?	Unknown
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Washington State Department of Natural Resources
Database	Hazard Zonation-Landslide Inventory
Database acronym	LSI
Contact	Laura Vaugeois - 360-902-1405 - laura.vaugeois@wadnr.gov
Overview of the monitoring program	Create a statewide GIS-based dataset of all available landslide inventories.
Audience/customer/user	Land managers and regulators.
Objectives	To assist in land management and regulatory decision-making, as it relates to slope stability concerns.
Authority	Forest and Fish Legislation (ESHB2091)
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Coarse Inventory; Status Monitoring; Effectiveness
Primary geographic focus	Select Watersheds; Statewide
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Lower Columbia; Middle Columbia; NE Washington; Non Salmon Recovery Areas; Puget Sound; Snake River; Upper Columbia; Washington Coast
Frequency of sample collection	Varies
Number of years data collected	More than 5
Data content	Freshwater Surface Water Quality; Geologic; Harvest; Land Use; Marine/Estuarine Water Quality; Other Upland; Salmonid Passage; Salmonid Productivity; Waterway and Channel Modification
Other data	
Rate data quality/condition (0-18)	14
Rate design, scope, implementation (0-15)	11
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email
Data contact person	Laura Vaugeois - 360-902-1405 - laura.vaugeois@wadnr.gov
How often do you analyze, summarize, compile raw data?	As Needed; As Resources Permit; Varies
Report/publish data?	Annually; Varies
Analyzed/summarized data made available?	Email
Rely on data from others?	Yes
Data readily available on maps?	Yes
Data exist as GIS coverage?	Yes
Type of funding	Short Term

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Washington State Department of Natural Resources
Database	Kings Lake Bog Water Quality and Hydrology Study
Database acronym	KLB
Contact	Scott Pearson - 360-754-6032 - scott.pearson@wadnr.gov
Overview of the monitoring program	Baseline data on water quality and hydrology of Kings Lake Bog Natural Area Preserve.
Audience/customer/user	Intended to help us identify threats to the long-term persistence of the bog and wetland complex.
Objectives	Describe water quality and hydrology of the site. This monitoring program will be repeated at five other bogs managed by the Natural Areas Program.
Authority	RCW 79.71
Relates to watershed health and salmon recovery	No Relationship
Program ongoing?	Yes
Type of monitoring	Status Monitoring
Primary geographic focus	Select Reaches
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Puget Sound
Frequency of sample collection	Monthly
Number of years data collected	1 to 5
Data content	Freshwater Surface Water Quality; Hydrology
Other data	
Rate data quality/condition (0-18)	12
Rate design, scope, implementation (0-15)	12
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Not Available
Data contact person	Scott Pearson - 360-754-6032 - scott.pearson@wadnr.gov
How often do you analyze, summarize, compile raw data?	Annually
Report/publish data?	Every 2 Yrs
Analyzed/summarized data made available?	Not Available
Rely on data from others?	No
Data readily available on maps?	No
Data exist as GIS coverage?	No
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Washington State Department of Natural Resources
Database	Natural Heritage Information System
Database acronym	NHIS
Contact	John Gamon - 360-902-1661 - john.gamon@wadnr.gov
Overview of the monitoring program	Maintain GIS and tabular information on the state's significant ecological features, including rare species and high quality terrestrial and aquatic communities.
Audience/customer/user	Data are used internally by the Natural Areas Program within DNR, as well as externally by non-profit conservation organizations, other state and federal agencies, consulting firms, researchers, etc.
Objectives	Data are used both directly for conservation planning purposes and indirectly during the course of environmental review of various projects.
Authority	RCW 79.70
Relates to watershed health and salmon recovery	
Program ongoing?	Yes
Type of monitoring	Coarse Inventory
Primary geographic focus	Statewide
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Lower Columbia; Middle Columbia; NE Washington; Non Salmon Recovery Areas; Puget Sound; Snake River; Upper Columbia; Washington Coast
Frequency of sample collection	Varies
Number of years data collected	
Data content	Biological - other; Nearshore; Other; Riparian Habitat; Upland Habitat; Wetlands
Other data	Location of rare plant and animal species
Rate data quality/condition (0-18)	13
Rate design, scope, implementation (0-15)	11
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Not Available
Data contact person	Sandy Moody - 360-902-1667 - Sandra.moody@wadnr.gov
How often do you analyze, summarize, compile raw data?	Varies
Report/publish data?	As Needed
Analyzed/summarized data made available?	Email; Web Downloadable; Web Requested; Web Viewable
Rely on data from others?	Yes
Data readily available on maps?	Yes
Data exist as GIS coverage?	Yes
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Washington State Department of Natural Resources
Database	Nearshore Habitat Program
Database acronym	
Contact	Helen Berry - 360-902-1052 - Helen.berry@wadnr.gov
Overview of the monitoring program	The Nearshore Habitat Program inventories and monitors intertidal and shallow subtidal habitats throughout the state, with a focus on Puget Sound. The program is one of eight research components within the Puget Sound Ambient Monitoring Program (PSAMP). It is housed in DNR, the steward for majority of the state's aquatic lands.
Audience/customer/user	There are a broad range of audience/customers. The general public is interested in status and trends information. State, federal and local scientists and managers are interested in status and trends information and in data to improve land management.
Objectives	The mandate of the program, as defined by PSAMP, is to assess the health of Puget Sound. We meet this objective through a series of linked inventory and monitoring programs that track indicators of nearshore habitat condition. The program inventories physical and biotic habitat characteristics at several resolutions, and monitors the following indicators of habitat condition: eelgrass abundance and distribution, canopy-forming kelp, intertidal resident biotic communities. We also complete focus projects to address other issues of interest.
Authority	
Relates to watershed health and salmon recovery	Indirectly Supports
Program ongoing?	Yes
Type of monitoring	Coarse Inventory; Status Monitoring
Primary geographic focus	Ecoregions or Marine Wagers
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Puget Sound; Washington Coast
Frequency of sample collection	Varies
Number of years data collected	Varies
Data content	Biological – other; Nearshore
Other data	
Rate data quality/condition (0-18)	17
Rate design, scope, implementation (0-15)	15
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email; Hard Copy; Web Downloadable www.wa.gov/dnr
Data contact person	Nearshore Habitat Program - 360-902-1100
How often do you analyze, summarize, compile raw data?	Varies
Report/publish data?	Varies
Analyzed/summarized data made available?	Email; Hard Copy; Web Downloadable
Rely on data from others?	Yes
Data readily available on maps?	Yes
Data exist as GIS coverage?	Yes
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Washington State Department of Natural Resources
Database	TFW Cooperative Monitoring, Evaluation and Research
Database acronym	CMER
Contact	Geoffrey McNaughton - 360-902-1669 geoffrey.mcnaughton@wadnr.gov
Overview of the monitoring program	The historic mission of CMER has been to provide information that will help evaluate the TFW Agreement's effectiveness, and offer a framework for adaptive management. The CMER program was designed to answer questions about how forest practices affect public resources. The CMER program has several key purposes, including: Examining ways in which forestry activities such as timber harvest and road construction impact fish, wildlife and water quality; providing the technical and informational framework for making and evaluating resource management decisions; promoting understanding of ecosystem interactions.
Audience/customer/user	TFW and Forests and Fish stakeholders include state and federal resource management agencies (WDFW, DNR and Ecology; U.S. Fish and Wildlife Service; National Marine Fisheries Service; large and small private forest landowners, tribal interests; environmental community; and the public.
Objectives	The specific objectives are quite numerous, but can be categorized into the following: The success of different elements of the TFW Agreement in protecting public resources; the validity of those assumptions that form the basis for current regulations and proposed resource management alternatives; the most reliable methods for helping resource managers assess and reduce the risks connected with forest practices.
Authority	
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	
Primary geographic focus	
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Lower Columbia; Middle Columbia; NE Washington; Non Salmon Recovery Areas; Puget Sound; Snake River; Upper Columbia; Washington Coast
Frequency of sample collection	Varies
Number of years data collected	Varies
Data content	Biological - other; Freshwater Surface Water Quality; Geologic; Ground Water Quality/Quantity; Hydrology; Instream Habitat; Other; Other Upland; Riparian Habitat; Salmonid Passage; Salmonid Productivity; Upland Habitat; Waterway and Channel Modification; Wetlands
Other data	
Rate data quality/condition (0-18)	
Rate design, scope, implementation (0-15)	
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email
Data contact person	Geoffrey McNaughton - 360-902-1669 geoffrey.mcnaughton@wadnr.gov
How often do you analyze, summarize, compile raw data?	Varies
Report/publish data?	Varies
Analyzed/summarized data made available?	Email
Rely on data from others?	Yes
Data readily available on maps?	Yes
Data exist as GIS coverage?	Yes
Type of funding	Short Term

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Washington State Department of Natural Resources
Database	Transportation Database
Database acronym	TRANS Data
Contact	Terry Graham - 360-902-1680 - terry.graham@wadnr.gov
Overview of the monitoring program	In general, the Transportation Database, a DNR GIS data layer, employs dynamic segmentation of routes and serves as a corporate repository for information on Transportation Routes, with the greatest attribution on DNR forest roads and trails and private forest roads; Transportation Route Structures, e.g. bridges, culverts and gates; Fish Passage Barrier Evaluations, that facilitate addressing Forest and Fish requirements; Road Engineering Projects, that support the development of DNR's Road Maintenance and Abandonment Plans, and Rock Sources, via a linkage to the Rock Source Data Layer.
Audience/customer/user	Within DNR=land managers/planners, field foresters/engineers/biologists, Forest Practices staff and wildland firefighters. Outside DNR=natural resource agencies, private forest land owners, local jurisdictions, and environmental organizations.
Objectives	To provide spatial and tabular transportation information, with an emphasis on forest roads, for regulatory, proprietary and informational business needs.
Authority	Internal
Relates to watershed health and salmon recovery	Indirectly Supports
Program ongoing?	Yes
Type of monitoring	
Primary geographic focus	Statewide
Geospatially referenced?	
Salmon Recovery Region(s)	
Frequency of sample collection	
Number of years data collected	
Data content	
Other data	
Rate data quality/condition (0-18)	12
Rate design, scope, implementation (0-15)	15
Charge money for the data?	Sometimes
Data sensitive or proprietary?	No
Raw data made available?	Email; Hard Copy
Data contact person	Sandra Bahr - 360-902-1544 - sandra.bahr@wadnr.gov
How often do you analyze, summarize, compile raw data?	As Needed
Report/publish data?	As Needed
Analyzed/summarized data made available?	Email; Hard Copy
Rely on data from others?	
Data readily available on maps?	Yes
Data exist as GIS coverage?	Yes
Type of funding	Short Term

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Washington State Department of Natural Resources
Database	WA Department of Natural Resources Geographic Information System Hydrography Data Layer
Database acronym	WADNR HYDRO
Contact	Deborah Naslund - 360-902-1666 - deborah.naslund@wadnr.gov
Overview of the monitoring program	Provide a statewide geographic information data layer of surface water features for data analysis and mapping in support of natural resource management.
Audience/customer/user	WA Department of Natural Resources staff, Timber/Fish/Wildlife participants and other state/federal/private agencies/organizations/individuals.
Objectives	To assist in land management and regulatory decision making as it relates to surface waters of the state. The WADNR Hydrography Data Layer is designed to serve as the official repository for the Forest Practices Water Typing System.
Authority	RCW 5822, 5824; ESHB 2091; RCW 76.09; WAC 222 Requirements for regulatory and proprietary land management.
Relates to watershed health and salmon recovery	
Program ongoing?	Yes
Type of monitoring	
Primary geographic focus	Statewide
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Lower Columbia; Middle Columbia; NE Washington; Non Salmon Recovery Areas; Puget Sound; Snake River; Upper Columbia; Washington Coast
Frequency of sample collection	Varies
Number of years data collected	
Data content	Other
Other data	The DNR Hydrography data layer represents an integrated network coverage (polygons and lines) that holds data on water bodies (open water, lakes, etc.) and watercourses (rivers, streams, canals, etc.).
Rate data quality/condition (0-18)	10
Rate design, scope, implementation (0-15)	
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email
Data contact person	Sandra Bahr - 360-902-1544 - sandra.bahr@wadnr.gov
How often do you analyze, summarize, compile raw data?	
Report/publish data?	
Analyzed/summarized data made available?	
Rely on data from others?	Yes
Data readily available on maps?	Yes
Data exist as GIS coverage?	Yes
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Washington State Department of Transportation
Database	WSDOT Wetland Monitoring Program
Database acronym	
Contact	Bob Thomas - 360-570-6646 - thomasbo@wsdot.wa.gov
Overview of the monitoring program	When wetlands are adversely affected by a transportation project, WSDOT provides compensation for the impacts by restoring, enhancing, and/or creating wetlands. Compliance monitoring of these compensatory mitigation efforts, and provision of internal feedback, comprise the two-fold mission of the WSDOT Monitoring Program. Compliance monitoring provides a means for tracking the development of all WSDOT mitigation projects over time, and for determining compliance with permits issued by federal, state, local or tribal jurisdictions. It is also the purpose of the Monitoring Program to serve an important internal feedback role. By reporting on the development of mitigation projects, the Monitoring Program provides an essential link in the internal adaptive management process, empowering regional WSDOT environmental managers to make sound decisions regarding present and future mitigation projects.
Audience/customer/user	Monitoring reports are completed annually and submitted to the U.S. Army Corps of Engineers, Washington State Department of Ecology, and other appropriate state and federal resource agencies and local governments.
Objectives	Monitoring begins the first year after planting of a mitigation site and continues annually for what is typically a period of 5 to 10 years. WSDOT biologists conduct monitoring activities from May to September with the help of graduate students and upper level undergraduates enrolled in an eleven-week internship entitled Wetland Ecology and Monitoring Techniques. Data are collected on vegetation, wildlife, soil, and hydrology and a photographic record is kept of each site.
Authority	Permits issued by local, state and federal agencies including USACE, EPA, WSDOE, King County and City of Seattle
Relates to watershed health and salmon recovery	No Relationship
Program ongoing?	Yes
Type of monitoring	Status Monitoring
Primary geographic focus	Statewide
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Lower Columbia; Middle Columbia; NE Washington; Puget Sound; Washington Coast
Frequency of sample collection	Episodic
Number of years data collected	Varies
Data content	Biological – other; Hydrology; Wetlands
Other data	
Rate data quality/condition (0-18)	16
Rate design, scope, implementation (0-15)	15
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Hard Copy
Data contact person	Fred Bergdolt - 360-570-6645 - bergdof@wsdot.wa.gov
How often do you analyze, summarize, compile raw data?	As Needed; Annually
Report/publish data?	As Needed; Annually
Analyzed/summarized data made available?	Web Viewable www.wsdot.wa.gov/eesc/environmental/programs/wetmon/wetmon.htm
Rely on data from others?	No
Data readily available on maps?	No
Data exist as GIS coverage?	Yes
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	US Army Corps of Engineers
Database	Monitoring of aquatic and wetland mitigation efforts
Database acronym	
Contact	Chris L. McAuliffe - 206-764-6878 - chris.l.mcauliffe@usace.army.m
Overview of the monitoring program	Monitoring of aquatic and wetland mitigation efforts as required by permit conditions.
Audience/customer/user	Regulatory branch project managers and team leaders.
Objectives	To insure mitigation projects are completed and that they meet specific goals, objectives, and performance standards.
Authority	33 CFR 325.4
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Operational; Status Monitoring; Effectiveness
Primary geographic focus	Statewide
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Lower Columbia; Middle Columbia; Non Salmon Recovery Areas; Puget Sound; Upper Columbia; Washington Coast
Frequency of sample collection	Varies
Number of years data collected	Varies
Data content	Instream Habitat; Nearshore; Riparian Habitat; Wetlands
Other data	
Rate data quality/condition (0-18)	6
Rate design, scope, implementation (0-15)	5
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Hard Copy
Data contact person	Chris L. McAuliffe - 206-764-6878 - chris.l.mcauliffe@usace.army.m
How often do you analyze, summarize, compile raw data?	As Resources Permit
Report/publish data?	Never
Analyzed/summarized data made available?	Hard Copy
Rely on data from others?	Yes
Data readily available on maps?	Partial
Data exist as GIS coverage?	No
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	US Army Corps of Engineers Regulatory Branch
Database	Endangered Species Act Programmatic Consultation Compliance Monitoring
Database acronym	
Contact	Cindy Barger - 206-764-5526 - cindy.s.barger@usace.army.mil
Overview of the monitoring program	Individual project monitoring of compliance with ESA programmatic consultation requirements by submitting reports on revegetation success, pollution, and erosion control measures, fish capture and release, and overall project success for restoration activities. Similar monitoring requirements are placed on projects not authorized by a programmatic consultation. Construction impact assessments-for some programmatic consultation activities, individual projects are requested to monitor impacts during construction and submit report summarizing the impacts. Programmatic monitoring is conducted to assess overall frequency of use, enforcement/compliance issues, and ascertain potential aspects for the programmatic consultation that should be reevaluated at the annual monitoring and reporting meetings.
Audience/customer/user	Specific audience or customer of monitoring results.
Objectives	Individual project monitoring goal - overall success of the project, compliance with ESA consultation requirements (programmatic or individual consultations). Construction impact assessments goal-evaluate accuracy of programmatic consultation impact assessments, revised programmatic consultation requirements per impact assessments (either becoming less restrictive or more restrictive) to properly protect listed species (Adaptive Management). Programmatic Monitoring goal-Corps of Engineers compliance with programmatic consultation. Adaptive management measures will be implemented based on overall compliance.
Authority	CFR – ESA
Relates to watershed health and salmon recovery	Indirectly Supports
Program ongoing?	Yes
Type of monitoring	Operational
Primary geographic focus	Statewide
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Lower Columbia; Middle Columbia; NE Washington; Puget Sound; Snake River; Upper Columbia; Washington Coast
Frequency of sample collection	Annually
Number of years data collected	1 to 5
Data content	Landscape Activities – restoration projects; Other; Salmonid Passage
Other data	In water structure/activities
Rate data quality/condition (0-18)	12
Rate design, scope, implementation (0-15)	10
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email
Data contact person	Cindy Barger - 206-764-5526 - cindy.s.barger@usace.army.mil
How often do you analyze, summarize, compile raw data?	Annually
Report/publish data?	Annually
Analyzed/summarized data made available?	Email
Rely on data from others?	Yes
Data readily available on maps?	No
Data exist as GIS coverage?	No
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	US Army Corps of Engineers, Seattle District
Database	Dredged Material Management Program (DMMP) - Puget Sound Monitoring Program for Non-dispersive disposal
Database acronym	DMMP
Contact	David R. Kendall, Ph.D. - 206-764-3768 - david.r.kendall@usace.army.mil
Overview of the monitoring program	All four DMMP agencies (Corps, DNR, Ecology, EPA) cooperatively manage the 8 deepwater disposal sites, and participate in data review and management decisions. Active monitoring of the disposal sites is generally restricted to the Puget Sound nondispersive sites. The Non-dispersive site monitoring objectives require the collection of physical, chemical, and biological data to answer the following three questions: 1) Does the deposited dredged material stay onsite?; 2) Is the biological effects condition for non-dispersive sites exceeded at the site due to dredged material disposal?; 3) Are unacceptable adverse effects occurring to biological resources immediately offsite due to dredged material disposal?
Audience/customer/user	The public, resource agencies, and shoreline districts, that issue the disposal site shoreline permit for each of the 5 non-dispersive sites and 3 dispersive sites. The DMMP agencies manage the sites according to the management objectives discussed above.
Objectives	The monitoring results are used by the DMMP agencies to determine if management standards have been met (see 7 above), if additional studies are needed, or if adjustments should be made to site management standards, site use conditions, or other DMMP program elements.
Authority	CFR; WAC 332-30-166
Relates to watershed health and salmon recovery	Indirectly Supports
Program ongoing?	Yes
Type of monitoring	Operational; Status Monitoring; Effectiveness
Primary geographic focus	Ecoregions or Marine Waters
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Puget Sound
Frequency of sample collection	
Number of years data collected	More than 5
Data content	Marine/Estuarine Water Quality
Other data	
Rate data quality/condition (0-18)	13
Rate design, scope, implementation (0-15)	10
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email; Hard Copy
Data contact person	Robert Brenner, DNR - 360-902-1083 - Robert.Brenner@wadnr.gov
How often do you analyze, summarize, compile raw data?	Annually
Report/publish data?	Every 2 Yrs
Analyzed/summarized data made available?	Email; Web Requested
Rely on data from others?	No
Data readily available on maps?	Yes
Data exist as GIS coverage?	Yes
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	USCG Integrated Support Command Seattle
Database	Benchmark Monitoring under the National Pollution Discharge Elimination System Stormwater Multi-Sect
Database acronym	Stormwater Monitoring
Contact	Nina Scala - 206-217-6986 - ascala@pacnorwest.uscg.mil
Overview of the monitoring program	Benchmark monitoring of stormwater runoff from Piers 36 and 37 in Seattle, in accordance with the Water Transportation Sector requirements of the NPDES Multi-Sector General Permit. Visual and quantitative analysis of runoff from four discharge points during a qualifying storm event. Analysis conducted quarterly, every two years. Analytical parameters are total recoverable: aluminum, iron, lead, and zinc.
Audience/customer/user	Data are furnished to USEPA every two years in accordance with the NPDES permit.
Objectives	To identify and reduce sources of water pollution that are typically problematic at marine transportation related facilities. USEPA objectives are likely broader.
Authority	CFR 33 USC 1251
Relates to watershed health and salmon recovery	Indirectly Supports
Program ongoing?	Yes
Type of monitoring	Status Monitoring; Effectiveness
Primary geographic focus	Multi-State/International
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Puget Sound
Frequency of sample collection	Alternating Yrs
Number of years data collected	1 to 5
Data content	Other
Other data	Stormwater runoff to Elliott Bay.
Rate data quality/condition (0-18)	3
Rate design, scope, implementation (0-15)	5
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Hard Copy
Data contact person	Nina Scala - 206-217-6986 - ascala@pacnorwest.uscg.mil
How often do you analyze, summarize, compile raw data?	Every 2 Yrs
Report/publish data?	Every 2 Yrs
Analyzed/summarized data made available?	Hard Copy
Rely on data from others?	No
Data readily available on maps?	No
Data exist as GIS coverage?	No
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	US Fish & Wildlife Service
Database	Bull Trout Habitat Monitoring (Temperatures)
Database acronym	
Contact	Judy DeLaVergne - 509-665-3510 - Judy_delavergne@fws.gov
Overview of the monitoring program	Gather baseline information for bull trout Section 7 consultation and recovery planning in mid and upper Columbia recovery units.
Audience/customer/user	Public agencies and universities.
Objectives	Detect trend data on stream temperatures as they relate to bull trout habitat suitability.
Authority	Other
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Status Monitoring
Primary geographic focus	Select WRIAs
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Middle Columbia; Upper Columbia
Frequency of sample collection	Daily
Number of years data collected	Varies
Data content	Freshwater Surface Water Quality; Salmonid Productivity; Instream Habitat
Other data	
Rate data quality/condition (0-18)	16
Rate design, scope, implementation (0-15)	13
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email
Data contact person	Judy DeLaVergne - 509-665-3510 - Judy_delavergne@fws.gov
How often do you analyze, summarize, compile raw data?	As Needed
Report/publish data?	As Needed; As Resources Permit
Analyzed/summarized data made available?	Email
Rely on data from others?	Yes
Data readily available on maps?	Partial
Data exist as GIS coverage?	Yes
Type of funding	Short Term

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	US Fish & Wildlife Service
Database	Bull Trout Occurrence Tracking
Database acronym	
Contact	Carol Langston - 360-753-6055 - Carol_langston@fws.gov
Overview of the monitoring program	We have developed a M.S. Access database to store information on bull trout occurrences. This database is new and has few records currently, but forms have been provided to various federal, state agencies and will be input as received. This data is intended as support data for the WEFW Streamnet Bull Char information.
Audience/customer/user	USFWS, WDFW
Objectives	Track/document bull trout occurrence information in database as support data for the WDFW Streamnet Bull Char information. Original data is submitted by others doing bull trout monitoring on form which we log in database.
Authority	Internal; Unknown
Relates to watershed health and salmon recovery	Indirectly Supports
Program ongoing?	Yes
Type of monitoring	Coarse Inventory
Primary geographic focus	Statewide
Geospatially referenced?	Partially
Salmon Recovery Region(s)	
Frequency of sample collection	Varies
Number of years data collected	Less than 1
Data content	Salmonid Productivity
Other data	
Rate data quality/condition (0-18)	
Rate design, scope, implementation (0-15)	
Charge money for the data?	No
Data sensitive or proprietary?	Yes
Raw data made available?	Not Available
Data contact person	Carol Langston - 360-753-6055 - Carol_langston@fws.gov
How often do you analyze, summarize, compile raw data?	As Needed
Report/publish data?	Never
Analyzed/summarized data made available?	Not Available
Rely on data from others?	Yes
Data readily available on maps?	Partial
Data exist as GIS coverage?	Yes
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	US Fish & Wildlife Service
Database	Bull Trout Population Surveys
Database acronym	
Contact	Judy DeLaVergne - 509-665-3510 - Judy_delavergne@fws.gov
Overview of the monitoring program	Gather baseline information for bull trout Section 7 consultation and recovery planning in mid and upper Columbia recovery units.
Audience/customer/user	Public agencies and universities.
Objectives	Determine population size and distribution and develop a baseline.
Authority	Other
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Coarse Inventory
Primary geographic focus	Select WRIAs
Geospatially referenced?	No
Salmon Recovery Region(s)	Middle Columbia; Upper Columbia
Frequency of sample collection	Episodic
Number of years data collected	Varies
Data content	Salmonid Productivity
Other data	
Rate data quality/condition (0-18)	12
Rate design, scope, implementation (0-15)	8
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email
Data contact person	Judy DeLaVergne - 509-665-3510 - Judy_delavergne@fws.gov
How often do you analyze, summarize, compile raw data?	As Needed
Report/publish data?	As Needed
Analyzed/summarized data made available?	Email
Rely on data from others?	Yes
Data readily available on maps?	Partial
Data exist as GIS coverage?	No
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	US Fish & Wildlife Service
Database	Bull Trout Radio Telemetry Monitoring
Database acronym	
Contact	Judy DeLaVergne - 509-665-3510 - Judy_delavergne@fws.gov
Overview of the monitoring program	Gather baseline information for bull trout Section 7 consultation and recovery planning in mid and upper Columbia recovery units.
Audience/customer/user	Public agencies and universities.
Objectives	Detect migrating patterns, locate new spawning areas, determine migration timing, develop methodology for survey.
Authority	Other
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Coarse Inventory
Primary geographic focus	Select WRIAs
Geospatially referenced?	No
Salmon Recovery Region(s)	Middle Columbia; Upper Columbia
Frequency of sample collection	Episodic
Number of years data collected	1 to 5
Data content	Salmonid Productivity
Other data	
Rate data quality/condition (0-18)	15
Rate design, scope, implementation (0-15)	13
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email
Data contact person	Judy DeLaVergne - 509-665-3510 - Judy_delavergne@fws.gov
How often do you analyze, summarize, compile raw data?	As Needed; Weekly; Monthly
Report/publish data?	As Needed; Annually
Analyzed/summarized data made available?	Email
Rely on data from others?	Yes
Data readily available on maps?	Partial
Data exist as GIS coverage?	Yes
Type of funding	Short Term

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	US Fish & Wildlife Service
Database	Bull Trout Redd Monitoring
Database acronym	
Contact	Judy DeLaVergne - 509-665-3510 - Judy_delavergne@fws.gov
Overview of the monitoring program	Gather baseline information for bull trout Section 7 consultation and recovery planning in mid and upper Columbia recovery units.
Audience/customer/user	Public agencies and universities.
Objectives	Detect trends in abundance and distribution of bull trout.
Authority	Other
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Coarse Inventory; Status Monitoring
Primary geographic focus	Select WRIAs
Geospatially referenced?	No
Salmon Recovery Region(s)	Middle Columbia; Upper Columbia
Frequency of sample collection	Seasonally
Number of years data collected	More than 5
Data content	Salmonid Productivity
Other data	
Rate data quality/condition (0-18)	14
Rate design, scope, implementation (0-15)	12
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email; Hard Copy
Data contact person	Judy DeLaVergne - 509-665-3510 - Judy_delavergne@fws.gov
How often do you analyze, summarize, compile raw data?	Weekly; Annually
Report/publish data?	Annually
Analyzed/summarized data made available?	Email
Rely on data from others?	Yes
Data readily available on maps?	Partial
Data exist as GIS coverage?	No
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	US Fish & Wildlife Service
Database	Chehalis River Basin Fishery Resources
Database acronym	
Contact	Brian Peck - 360-753-8084 - brian_peck@fws.gov
Overview of the monitoring program	The Chehalis River Basin Fishery Resources Study and Restoration Act (Public Law 101-452) authorized the Fish and Wildlife Service to identify and describe habitat degradations that impact salmon and steelhead in the Chehalis River Basin. The Service's Western Washington Fishery Resource Office (WWFRO) performed the study under general guidance of the Chehalis Basin Fisheries Restoration Steering Committee. As a first step, a comprehensive review of the status and trends of Chehalis Basin fisheries and fish habitats was completed (Hiss & Knudsen 1992). This report represents the second step, identification of specific salmon and steelhead habitat degradation.
Audience/customer/user	Aquatic habitat essential to salmon and steelhead in the Chehalis River Basin has been subjected to many types of degradation since the advance of non-native civilization. Recent action by citizen groups, agencies, and Tribes has begun to focus attention on the need to correct problems that degrade this aquatic habitat.
Objectives	The objective of this study was to survey stream habitat degradations in all reaches of the Chehalis River Basin accessible to salmon and steelhead, and record their specific locations on detailed maps. The results will be used to guide work programs needed to restore salmon and steelhead stream habitat in Chehalis River sub-basins. This report describes the study and presents findings and associated maps of habitat degradation in the Chehalis River Basin.
Authority	Other
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	No
Type of monitoring	Coarse Inventory
Primary geographic focus	Select WRIAs
Geospatially referenced?	Partially
Salmon Recovery Region(s)	Washington Coast
Frequency of sample collection	Varies
Number of years data collected	1 to 5
Data content	Salmonid Productivity; Salmonid Passage; Hatchery - fish release, capture; Riparian Habitat; Instream Habitat; Waterway and Channel Modification; Landscape/features inventory; Landscape Activities - restoration projects
Other data	
Rate data quality/condition (0-18)	12
Rate design, scope, implementation (0-15)	13
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Hard Copy; Not Available
Data contact person	Brian Peck - 360-753-8084 - brian_peck@fws.gov
How often do you analyze, summarize, compile raw data?	Never
Report/publish data?	Never
Analyzed/summarized data made available?	Hard Copy; Not Available
Rely on data from others?	No
Data readily available on maps?	Partial
Data exist as GIS coverage?	Yes
Type of funding	Short Term

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	US Fish & Wildlife Service
Database	Columbia River (information) System
Database acronym	CRiS
Contact	Steve Pastor - 360-696-7605 - stephen_pastor@fws.gov
Overview of the monitoring program	CRiS captures information from and about National Fish Hatcheries in the Columbia River Basin. Use of CRiS database files and programs achieves the following multiple purposes: - greatly reduces the amount of effort expended to meet reporting requirements, increases the quality and consistency of data, facilitates development of software usable at many facilities, provides a platform on which to build effective tools which can be used by hatcheries, fisheries offices and regional offices, facilitates the exchange of information with other agencies.
Audience/customer/user	Agencies dealing with fisheries issues in the Columbia River Basin are the "audience" for CRiS. The information is also used extensively within USFWS.
Objectives	Use of CRiS database files and programs achieves the following multiple purposes: greatly reduces the amount of effort expended to meet reporting requirements, increases the quality and consistency of data, facilitates development of software usable at many facilities, provides a platform on which to build effective tools which can be used by hatcheries, fisheries offices and regional offices, facilitates the exchange of information with other agencies.
Authority	Unknown
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Status Monitoring
Primary geographic focus	Other
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Lower Columbia; Middle Columbia; Snake River; Upper Columbia
Frequency of sample collection	Continuous
Number of years data collected	More than 5
Data content	Hatchery - disease, genetics; Hatchery - fish release, capture
Other data	
Rate data quality/condition (0-18)	18
Rate design, scope, implementation (0-15)	15
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email; Hard Copy
Data contact person	Steve Pastor - 360-696-7605 - stephen_pastor@fws.gov
How often do you analyze, summarize, compile raw data?	Varies
Report/publish data?	Varies
Analyzed/summarized data made available?	Email
Rely on data from others?	No
Data readily available on maps?	Partial
Data exist as GIS coverage?	No
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	US Fish & Wildlife Service
Database	Elliott Bay/Duwamish Restoration Monitoring Program
Database acronym	EB/DRP
Contact	Carrie Cook-Tabor - 360-753-9512 - carrie_cook-tabor@fws.gov
Overview of the monitoring program	The U.S. Fish and Wildlife Service initiated the monitoring component of the EB/DRP during the winter of 2000/2001. One goal of the EB/DRP is to restore intertidal habitats in Elliott Bay and the Duwamish River at selected sites. The monitoring component is a 10 year project to monitor the physical and biological characteristics of four restoration sites associated with the EB/DRP and their respective reference sites.
Audience/customer/user	Monitoring results, and associated reports, are made available to the Elliott Bay/Duwamish Restoration Program Panel, federal, local and state agencies and tribes.
Objectives	To determine if the physical and biological criteria, established as a benchmark for success in the EB/DRP monitoring plan have been met. Physical criteria categories include intertidal area, tidal regime, slope erosion and sediment quality. Biological criteria include marsh vegetation, riparian vegetation, bird use, fish access and presence, and invertebrate prey production.
Authority	Court
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Status Monitoring
Primary geographic focus	Select Reaches
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Puget Sound
Frequency of sample collection	Seasonally
Number of years data collected	1 to 5
Data content	Marine/Estuarine Water Quality; Salmonid Productivity; Exotic Species; Biological - other; Riparian Habitat; Waterway and Channel Modification; Landscape/features inventory; Landscape Activities - restoration projects
Other data	
Rate data quality/condition (0-18)	10
Rate design, scope, implementation (0-15)	7
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Hard Copy; Not Available
Data contact person	David Low - 360-753-9562
How often do you analyze, summarize, compile raw data?	As Needed; Annually
Report/publish data?	As Needed; Annually
Analyzed/summarized data made available?	Hard Copy; Not Available
Rely on data from others?	No
Data readily available on maps?	Unknown
Data exist as GIS coverage?	Unknown
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	US Fish & Wildlife Service
Database	Evaluate habitat use and population dynamics of lampreys in Cedar Creek
Database acronym	
Contact	Jen Stone - 360-696-6705 - jen_stone@fws.gov
Overview of the monitoring program	Pacific lamprey in the Columbia River Basin have declined to a remnant of their pre-1940s populations and the status of the western brook lamprey is unknown. Identifying the biological and ecological factors limiting lamprey populations is critical to their recovery, but little research has been conducted on these species with the Columbia River Basin.
Audience/customer/user	Various federal, state, tribal, and private agencies.
Objectives	The objectives of this on going, multi-year study are to: 1. Estimate the abundance, examine biological characteristics, and determine migration timing of adult Pacific lamprey; 2. Determine larval lamprey distribution, habitat use, and examine biological characteristics; 3. Determine emigration timing and estimate the abundance of recently metamorphosed lamprey; and, 4. Evaluate spawning habitat requirements of adult lamprey.
Authority	Unknown
Relates to watershed health and salmon recovery	No Relationship
Program ongoing?	Yes
Type of monitoring	Status Monitoring
Primary geographic focus	Select Reaches
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Lower Columbia
Frequency of sample collection	Continuous
Number of years data collected	1 to 5
Data content	Biological – other
Other data	
Rate data quality/condition (0-18)	12
Rate design, scope, implementation (0-15)	9
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Not Available
Data contact person	Jen Stone - 360-696-6705 - jen_stone@fws.gov
How often do you analyze, summarize, compile raw data?	Weekly
Report/publish data?	Annually
Analyzed/summarized data made available?	Web Downloadable http://170.160.2.246/cgi-bin/ws.exe/websql.dir/FW/PUBLICATIONS/QueryCustom.pl?Category=I&DOEBPNum=&RefNum=&PubYear=&BeginReportYear=&EndReportYear=&ReportType=Annual&Title=lamprey&AuthorFirstName=&Aut
Rely on data from others?	Yes
Data readily available on maps?	Yes
Data exist as GIS coverage?	Yes
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	US Fish & Wildlife Service
Database	Fisheries Resources Evaluation Database
Database acronym	FRED
Contact	Tom Kane - 360-753-9548 - tom_kane@fws.gov
Overview of the monitoring program	Olympic Peninsula National Fish Hatchery Evaluation. Encompasses production, releases, returns to hatchery.
Audience/customer/user	Hatchery managers, hatchery evaluators, hatchery production programmers.
Objectives	Provide access to centralized hatchery production, release, return information to facilitate hatchery evaluation and administrative reporting needs.
Authority	Internal
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Operational; Status Monitoring; Effectiveness
Primary geographic focus	Select Reaches
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Puget Sound; Washington Coast
Frequency of sample collection	Continuous
Number of years data collected	More than 5
Data content	Hatchery Release
Other data	
Rate data quality/condition (0-18)	14
Rate design, scope, implementation (0-15)	12
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email; Hard Copy
Data contact person	Tom Kane - 360-753-9548 - tom_kane@fws.gov
How often do you analyze, summarize, compile raw data?	As Needed; Annually
Report/publish data?	As Needed; Annually
Analyzed/summarized data made available?	Email; Hard Copy
Rely on data from others?	No
Data readily available on maps?	No
Data exist as GIS coverage?	No
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	US Fish & Wildlife Service
Database	Goldsborough Creek Pre-dam Removal Studies
Database acronym	
Contact	Carrie Cook-Tabor - 360-753-9512 - carrie_cook-tabor@fws.gov
Overview of the monitoring program	In an effort to monitor potential impacts of the proposed dam removal on salmonids in Goldsborough Creek, instream habitat surveys following TFW ambient monitoring protocols were completed and smolt trapping has been instituted. The proportion of salmonid smolts produced upstream and downstream of the dam was estimated in 2000 and 2001.
Audience/customer/user	The Army Corps of Engineers, Simpson Timber Co., other federal agencies, state agencies, tribes and local governments.
Objectives	To gather baseline data on habitat quantity and quality and smolt production above and below the partially blocking dam on Goldsborough Creek. This data will be used in comparisons of condition and smolt production following dam removal.
Authority	Other
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Status Monitoring; Effectiveness
Primary geographic focus	Select Watersheds
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Puget Sound
Frequency of sample collection	Varies
Number of years data collected	1 to 5
Data content	Salmonid Productivity; Biological - other; Riparian Habitat; Instream Habitat; Waterway and Channel Modification; Hydropower; Landscape/features inventory; Landscape Activities - restoration projects
Other data	
Rate data quality/condition (0-18)	12
Rate design, scope, implementation (0-15)	10
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Hard Copy; Not Available
Data contact person	Bob Wunderlich - 360-753-9509
How often do you analyze, summarize, compile raw data?	As Needed; Annually
Report/publish data?	As Needed; Annually
Analyzed/summarized data made available?	Hard Copy; Not Available
Rely on data from others?	No
Data readily available on maps?	No
Data exist as GIS coverage?	No
Type of funding	Short Term

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	US Fish & Wildlife Service
Database	Spring and Summer Chinook Salmon Spawning Ground Surveys
Database acronym	
Contact	David Carie - 509-548-7573 - david_carie@fws.gov
Overview of the monitoring program	FWS conducts multiple surveys on the Entiat River searching for spring (SCS) and summer (SUS) salmon redds, live and dead fish. Biologists also document spawning of other salmonid species (bull trout, sockeye and Coho).
Audience/customer/user	Data obtained from these surveys is requested by many interested entities. These include state, federal, tribal and private.
Objectives	1) Assess spawning distribution of SCS and SUS and provide estimates of abundance. 2) Evaluate possible straying of hatchery fish into the natural spawning areas. 3) Supplement spawning and population trend analysis data for SCS and SUS in the Entiat River.
Authority	Internal; Other
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Status Monitoring; Effectiveness
Primary geographic focus	Salmon Recovery Regions, ESUs; Select WRIAs; Select Watersheds
Geospatially referenced?	Partially
Salmon Recovery Region(s)	Upper Columbia
Frequency of sample collection	Annually
Number of years data collected	More than 5
Data content	Salmonid Productivity; Hatchery Genetics; Hatchery Release
Other data	
Rate data quality/condition (0-18)	18
Rate design, scope, implementation (0-15)	15
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email; Hard Copy
Data contact person	David Carie - 509-548-7573 - david_carie@fws.gov
How often do you analyze, summarize, compile raw data?	As Needed; Annually
Report/publish data?	Annually
Analyzed/summarized data made available?	Email; Hard Copy
Rely on data from others?	No
Data readily available on maps?	Partial
Data exist as GIS coverage?	Yes
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	US Fish & Wildlife Service, Idaho Fish Health Center
Database	National Wild Fish Health Survey
Database acronym	NWFHS
Contact	Laura Kessel - 208-476-9500 - laura_kessel@fws.gov
Overview of the monitoring program	The general purpose of the WFS is to determine the distribution of certain "certifiable" and important pathogens in wild/feral fish populations. Area of focus in the State of WA sampled by IFHC is the northeast, mainly in the Colville National Forest.
Audience/customer/user	Data/information is gathered to better help State, Tribal and Federal managers, as well as Universities and private entities, in making management decisions.
Objectives	To help managers in making decisions concerning: protection of threatened or endangered fish species; providing more information for better fish management; providing a cohesive national perspective for fish management; developing standardized fish health and fish transport regulations that are scientifically defensible; and to help determine the correlation between certain water quality, stream habitat, and stream substrate parameters with pathogen presence and, when applicable, disease outbreak (Pathogen presence DOES NOT = disease).
Authority	Other
Relates to watershed health and salmon recovery	Indirectly Supports
Program ongoing?	Yes
Type of monitoring	Coarse Inventory
Primary geographic focus	Multi-State/International; Statewide; Salmon Recovery Regions, ESUs; Select WRIAs; Select Watersheds; Select Reaches
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Upper Columbia; Snake River; NE Washington
Frequency of sample collection	Annually
Number of years data collected	1 to 5
Data content	Hydrology; Salmonid Productivity; Salmonid Passage; Hatchery - disease, genetics; Riparian Habitat; Instream Habitat; Land Use; Other
Other data	Wild fish pathogen presence.
Rate data quality/condition (0-18)	12
Rate design, scope, implementation (0-15)	4
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Web Viewable; Email
Data contact person	Laura Kessel - 208-476-9500 - laura_kessel@fws.gov
How often do you analyze, summarize, compile raw data?	As Needed; Annually; Varies
Report/publish data?	As Needed; Annually; Varies; As Resources Permit
Analyzed/summarized data made available?	Web Viewable; Email
Rely on data from others?	No
Data readily available on maps?	Partial
Data exist as GIS coverage?	Yes
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	US Fish & Wildlife Service, Olympia Fish Health Center
Database	National Wild Fish Health Survey
Database acronym	NWFHS
Contact	Ray D. Brunson - 360-753-9046 - ray_brunson@fws.gov
Overview of the monitoring program	National Survey to determine presence of certain aquatic pathogens and the location, and species of wild fish populations that may harbor them.
Audience/customer/user	The U.S. Fish and Wildlife Service, State, and Tribal fisheries management entities, and the general public.
Objectives	Sample wild fish populations with the assistance of partnership and cooperating agencies. Using tests and sampling at the minimum assumed prevalence level (APPL) of 5%, determine the presence (or absence) of certain regulated fish pathogens throughout the United States.
Authority	50 CFR;16.13 - U.S. Fish and Wildlife National Fish Health Policy and Wild Fish Health Survey Mission
Relates to watershed health and salmon recovery	No Relationship
Program ongoing?	Yes
Type of monitoring	Coarse Inventory; Status Monitoring; Effectiveness
Primary geographic focus	Multi-State/International; Select Reaches; Select Watersheds; Select WRIAs
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Middle Columbia; NE Washington; Puget Sound; Upper Columbia; Washington Coast
Frequency of sample collection	Episodic
Number of years data collected	1 to 5
Data content	Other
Other data	Data content includes date, species, numbers of samples, location, tests performed and results of tests for presence of pathogens in wild fish populations.
Rate data quality/condition (0-18)	7
Rate design, scope, implementation (0-15)	5
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Web Viewable
Data contact person	Thomas A. Bell - 703-358-1856 - thomas_a_bell@fws.gov
How often do you analyze, summarize, compile raw data?	As Needed; As Resources Permit; Varies
Report/publish data?	As Needed; As Resources Permit; Varies
Analyzed/summarized data made available?	Web Viewable
Rely on data from others?	Yes
Data readily available on maps?	Yes
Data exist as GIS coverage?	Yes
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	US Forest Service
Database	Aquatic Riparian Effectiveness Monitoring Plan
Database acronym	AREMP
Contact	Steve Lanigan - 503-808-2261 - slanigan@fs.fed.us
Overview of the monitoring program	The Aquatic and Riparian Effectiveness Monitoring Plan (AREMP) characterizes the ecological condition of watersheds and aquatic ecosystems to answer basic watershed health questions, e.g., is the Northwest Forest Plan (NWFP) restoring and maintaining aquatic and riparian ecosystems to desired conditions on federal lands in the Forest Plan area? Over a five-year period, a total of 250 watersheds will be sampled in Washington, Oregon and northern California within the NWFP area. Watershed conditions are being assessed by analyzing indicator values using a decision support model (DSM) incorporating physical, chemical, and biotic relationships developed by provincial and regional experts.
Audience/customer/user	Customers range from Federal agency executives (policy makers) who need monitoring results to guide adaptive management policies at a landscape level, to National Forest and BLM District managers who want monitoring results for watershed analyses, to guide adaptive management actions at local scale, and to prioritize restoration efforts.
Objectives	Our monitoring effort determines present watershed condition based on upslope, riparian, and in-channel attributes, tracks trends in watershed condition over time, and reports on the Forest Plan's effectiveness across the region. AREMP also provides information that is useful in determining causal relationships to help explain those trends. Another objective is to join in a state-federal monitoring partnership because it will help standardize protocols (e.g., how to develop landscape level GIS layers), allow us to evaluate the health of entire watersheds (instead of restricting monitoring to only federal lands), help improve communications between state and federal agencies, increase statistical inference (by using a larger sample size), and potentially stabilize available funds for monitoring efforts.
Authority	Internal
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Status Monitoring; Effectiveness
Primary geographic focus	Ecoregions or Marine Waters; Multi-State/International; Select Watersheds
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Lower Columbia; Puget Sound
Frequency of sample collection	Annually
Number of years data collected	1 to 5
Data content	Hydrology; Instream Habitat; Landscape activities - restoration projects; Landscape/features inventory; Land Use; Other Upland; Riparian Habitat; Upland Habitat
Other data	
Rate data quality/condition (0-18)	18
Rate design, scope, implementation (0-15)	15
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email
Data contact person	Chris Moyer - 541-750-7017 - cmoyer@fs.fed.us
How often do you analyze, summarize, compile raw data?	Annually
Report/publish data?	Annually
Analyzed/summarized data made available?	Email

Rely on data from others?	Yes
Data readily available on maps?	Yes
Data exist as GIS coverage?	Unknown
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	US Forest Service
Database	PACFISH/INFISH Monitoring Program
Database acronym	PIBO
Contact	Jeff Kershner - 435-797-2500 - kershner@cc.usu.edu
Overview of the monitoring program	This is an integrated riparian/stream monitoring program that attempts to answer the question "Are key characteristics of streams and riparian areas improving, declining, or being maintained by land management activities on BLM/FS lands within the affected area (Montana, Idaho, Washington, Oregon, parts Nevada).
Audience/customer/user	Administrative units of the BLM/FS (district/area office/forest/state/region) and representatives of the regulatory agencies (USFWS/NMFS).
Objectives	Our objectives are to try to find answers to the following questions: "Are key characteristics of streams and riparian areas improving, declining, or being maintained by land management activities on BLM/FS lands within the affected area?" and "What are the directions and rates of change in streams and riparian areas as a result of management under the strategies?"
Authority	PACFISH/INFISH Environmental analysis; ESA listing and Biological opinions for salmon, steelhead, and bull trout
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Status Monitoring; Effectiveness
Primary geographic focus	Multi-State International; Salmon Recovery Regions, ESUs; Select Watersheds
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Middle Columbia; NE Washington; Snake River; Upper Columbia
Frequency of sample collection	Annually
Number of years data collected	1 to 5
Data content	Biological - other; Geologic; Instream Habitat; Landscape/features inventory; Land Use; Riparian Habitat
Other data	
Rate data quality/condition (0-18)	17
Rate design, scope, implementation (0-15)	15
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Hard Copy; Web Requested
Data contact person	Rick Henderson - 435-755-3578 - rhenderson01@fs.fed.us
How often do you analyze, summarize, compile raw data?	Annually
Report/publish data?	Annually
Analyzed/summarized data made available?	Web Downloadable; Web Requested www.fs.fed.us/biology/fishecology
Rely on data from others?	No
Data readily available on maps?	Yes
Data exist as GIS coverage?	Yes
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	USGS/Water Resources Division
Database	USGS Stream Gauging Program
Database acronym	
Contact	Gary Turney - 253-428-3600, ext. 2 – gltturney@usgs.gov
Overview of the monitoring program	The Washington District of the USGS is responsible for the collection, compilation, and publication of hydrologic data, including records of stream discharge. Data are collected as part of statewide, countywide, or local networks, and are used for appraising the water resources of Washington. Surface-water stations established throughout the state provide data on stream discharge and stage, and reservoir and lake elevation and storage. Satellite-telemetry acquisition of data from many of these stations is essential to agencies for operating reservoirs, monitoring potential flood conditions, and optimizing water availability and use.
Audience/customer/user	A variety of State, local and Federal agencies fund data collection at over 200 surface-water sites in Washington. The customers use these data to help make decisions regarding a variety of surface-water quantity and quality issues including water rights, instream flow, endangered species, urban and agricultural runoff, power generation, and flood forecasting, warning and control. The general public also is an important customer of real-time data in Washington.
Objectives	The collection of surface-water data sufficient to satisfy needs for uses such as (1) assessment of water resources, (2) operation of reservoirs or industries, (3) forecasting, (4) pollution controls and disposal of wastes, (5) discharge data to accompany water-quality measurements, (6) compact and legal requirements, and (7) research or special studies. These data are also collected to support analytical studies to define for any location the statistical properties of, and trends in, the occurrence of water in streams, lakes, estuaries, etc., for use in planning and design.
Authority	Other
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Coarse Inventory; Status Monitoring; Effectiveness; Operational
Primary geographic focus	Multi-State/International; Select Reaches; Select Watersheds; Statewide; Select WRIAs
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Lower Columbia; Middle Columbia; NE Washington; Non Salmon Recovery Areas; Snake River; Upper Columbia; Washington Coast
Frequency of sample collection	Continuous
Number of years data collected	More than 5
Data content	Hydrology
Rate data quality/condition (0-18)	9
Rate design, scope, implementation (0-15)	6
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email; Hard Copy; Web Downloadable; Web Requested; Web Viewable http://wa.water.usgs.gov/realtime/waterdata.sw.html
Data contact person	Luis Fuste' – 253-428-3600, ext 2653 - lafuste@usgs.gov
How often do you analyze, summarize, compile raw data?	Annually; Varies
Report/publish data?	Annually; Daily
Analyzed/summarized data made available?	Email; Hard Copy; Web Downloadable; Web Requested; Web Viewable http://wa.water.usgs.gov/realtime/waterdata.sw.html
Rely on data from others?	Yes
Data readily available on maps?	No
Data exist as GIS coverage?	No
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Clallam County Dept. of Community Development, Natural Resources
Database	Clallam County Natural Resources Database
Database acronym	N/A
Contact	Ann Soule - 360-417-2424 - asoule@co.clallam.wa.us
Overview of the monitoring program	Database contains data collected by County projects and programs (most of them grant-related) over the past 15 years. Area of coverage is mostly WRIA 18 (Elwha-Dungeness). This database also contains Streamkeepers data, probably reported here by Ed Chadd or Jessica Baccus, the co-managers of that program.
Audience/customer/user	County staff; local/state/fed/tribal resource managers in this region; general public.
Objectives	
Authority	Internal (Various watershed management plans adopted by County Board of Commissioners)
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Other
Primary geographic focus	Administrative Boundaries; Select Watersheds; Select WRIAs
Geospatially referenced?	Partially
Salmon Recovery Region(s)	Puget Sound; Washington Coast
Frequency of sample collection	Seasonally
Number of years data collected	Varies
Data content	Freshwater Surface Water Quality; Ground Water Quality/Quantity; Hydrology; Instream Habitat; Marine/Estuarine Water Quality; Riparian Habitat; Salmonid Passage
Other data	
Rate data quality/condition (0-18)	
Rate design, scope, implementation (0-15)	
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email; Hard Copy
Data contact person	Ann Soule - 360-417-2424 - asoule@co.clallam.wa.us
How often do you analyze, summarize, compile raw data?	Varies
Report/publish data?	As Resources Permit
Analyzed/summarized data made available?	Email
Rely on data from others?	No
Data readily available on maps?	Partial
Data exist as GIS coverage?	No
Type of funding	Short Term

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Douglas County Transportation Land Services
Database	Land Use Data
Database acronym	
Contact	Chuck Jones - 509-884-7173 - cjones@co.douglas.wa.us
Overview of the monitoring program	Through GMA/Comprehensive Plan updates, land use data (development and current uses such as agriculture) are examined to determine housing, land consumption/conversion, population demographics, transportation, critical area designations, etc., which leads to development regulation changes (see current legislation on timeframes - it is 5 years now and proposed to be 7 years). As a part of this program wetlands, geologic, fish and wildlife data from various sources is used in decision making. The answers in the data section reflect THAT/THOSE data in general with respect to accuracy and precision to this agency. NRCS Soils data (draft) is some of the best we have. We also use assessor tax parcel data, from their office, on a regular basis. They maintain that dataset.
Audience/customer/user	County Commissioners, Planning Commission, other municipalities and the public. We present data from outside sources (WDFW etc.) in maps and analysis.
Objectives	Monitor the effectiveness of the Comprehensive Plan(s) and Development Regulations.
Authority	RCW 36.70
Relates to watershed health and salmon recovery	Indirectly Supports
Program ongoing?	Yes
Type of monitoring	Coarse Inventory; Status Monitoring; Effectiveness; Operational
Primary geographic focus	Administrative Boundaries
Geospatially referenced?	No
Salmon Recovery Region(s)	Upper Columbia
Frequency of sample collection	Varies
Number of years data collected	Varies
Data content	Biological - other; Geologic; Landscape/features inventory; Land Use; Other; Other Upland; Riparian Habitat; Upland Habitat; Wetlands
Other data	See "Overview" above
Rate data quality/condition (0-18)	6
Rate design, scope, implementation (0-15)	5
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email; Hard Copy
Data contact person	
How often do you analyze, summarize, compile raw data?	As Needed
Report/publish data?	Monthly
Analyzed/summarized data made available?	Email; Hard Copy
Rely on data from others?	Yes
Data readily available on maps?	Partial
Data exist as GIS coverage?	Yes
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	King County Department of Transportation, Road Services
Database	Mitigation Monitoring Program, RDCW16
Database acronym	
Contact	Erick Thompson - 206-296-8747 - Erick.Thompson@metrokc.gov
Overview of the monitoring program	The King County Road Services Division Engineering Services Section Environmental Unit Monitoring Program conducts field studies before, during, and after the construction of King County road projects. Many construction projects require work within streams that contain salmonids, leading to subsequent mitigation and enhancement of those streams and their associated wetland and riparian habitats. The monitoring program is used to evaluate the effectiveness of such endeavors.
Audience/customer/user	The Road Services Division itself. Also, many of our permits stipulate monitoring to evaluate the effectiveness of mitigation, we also conduct spawning surveys, habitat analysis, salmonid juvenile studies, etc. Permit conditions (Ranging from 3 to 10 years of monitoring) have come from: Washington State (WDFW and DOE), King County (KC DDES), and Federal (Army Corps, USFW and NMFS through Biological Opinion).
Objectives	1) To better facilitate design and permitting of road projects, and to provide relevant data to minimize or avoid all potential effects from road projects upon the natural environment. 2) Meet performance standards as specified by permit conditions from regulatory agencies.
Authority	RCW/WAC; Local; Internal; CFR
Relates to watershed health and salmon recovery	Indirectly Supports
Program ongoing?	Yes
Type of monitoring	Coarse Inventory; Status Monitoring; Effectiveness; Operational
Primary geographic focus	Administrative Boundaries; Select Reaches; Select Watersheds; Select WRIAs
Geospatially referenced?	Partially
Salmon Recovery Region(s)	Puget Sound
Frequency of sample collection	Varies
Number of years data collected	More than 5
Data content	Biological - other; Freshwater Surface Water Quality; Ground Water Quality/Quantity; Hydrology; Instream Habitat; Landscape Activities - restoration projects; Nearshore; Riparian Habitat; Salmonid Passage; Salmonid Productivity; Upland Habitat; Waterway and Channel Modification; Wetlands
Other data	
Rate data quality/condition (0-18)	11
Rate design, scope, implementation (0-15)	9
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email
Data contact person	Erick Thompson - 206-296-8747 - Erick.Thompson@metrokc.gov
How often do you analyze, summarize, compile raw data?	Annually
Report/publish data?	As Needed; Every 2 Yrs
Analyzed/summarized data made available?	Email
Rely on data from others?	Yes
Data readily available on maps?	Partial
Data exist as GIS coverage?	Yes
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	King County Road Maintenance Section
Database	Road Maintenance Environmental Monitoring Program
Database acronym	RMEMP
Contact	Rob Fritz - 206-205-7107 - rob.fritz@metrokc.gov
Overview of the monitoring program	We monitor water quality, macroinvertebrates, and habitat condition within the road right of way in un-incorporated King County. The data is used to help determine general health of streams (baseline data), impacts of specific road maintenance activities, and to help identify future projects. All of the monitoring is required to meet various state, federal and local permits.
Audience/customer/user	Our data is used in house to identify future projects, by other state and local agencies for additional information, and for state, local, and federal permit reviewers. We have also used the data to monitor specific project impacts over time, which has been used by other road maintenance jurisdictions and the University of Washington.
Objectives	The specific objectives are to document improved or existing habitat conditions within the road right of way and meet monitoring objectives in permit requirements.
Authority	RCW 75-20; RCW90.58; 43.21C; 90.48; 76.09; 36.70; 70-105; and many WAC
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Status Monitoring; Effectiveness
Primary geographic focus	Administrative Boundaries; Select Reaches
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Puget Sound
Frequency of sample collection	Daily
Number of years data collected	1 to 5
Data content	Biological - other; Exotic Species; Freshwater Surface Water Quality; Hydrology; Instream Habitat; Landscape Activities - restoration projects; Landscape/features inventory; Land Use; Other Upland; Riparian Habitat; Salmonid Passage; Salmonid Productivity; Waterway and Channel Modification; Wetlands
Other data	
Rate data quality/condition (0-18)	14
Rate design, scope, implementation (0-15)	12
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Hard Copy
Data contact person	Rob Fritz - 206-205-7107 - rob.fritz@metrokc.gov
How often do you analyze, summarize, compile raw data?	As Needed; As Resources Permit; Varies
Report/publish data?	As Resources Permit; Varies
Analyzed/summarized data made available?	Email; Hard Copy
Rely on data from others?	No
Data readily available on maps?	Yes
Data exist as GIS coverage?	Yes
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	King County Road Maintenance Section
Database	Road Maintenance NPDES Sampling Program
Database acronym	NPDES
Contact	Rob Fritz - 206-205-7107 - rob.fritz@metrokc.gov
Overview of the monitoring program	We have several gravel pit sites in King County that have groundwater wells that are monitored on a regular basis to meet permit requirements.
Audience/customer/user	The Department of Ecology is the primary audience, but local agencies and local residents are also interested. Road Maintenance management is the customer, without the permits they could not operate the facility.
Objectives	Meet permit requirements. We also use the data to identify problems that need to be addressed and monitor change over time.
Authority	RCW 43.21C; WAC 197-11; RCW 76.09; WAC 222-34; RCW 70-105; WAC 173-340; KCC 9.04; KCC 16.82; KCC 20.44
Relates to watershed health and salmon recovery	Indirectly Supports
Program ongoing?	Yes
Type of monitoring	Operational; Status Monitoring
Primary geographic focus	Administrative Boundaries; Select Reaches
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Puget Sound
Frequency of sample collection	Varies
Number of years data collected	Varies
Data content	Ground Water Quality/Quantity
Other data	
Rate data quality/condition (0-18)	10
Rate design, scope, implementation (0-15)	7
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email; Hard Copy
Data contact person	Doug Navetski - 206-296-7723 - doug.navetski@metrokc.gov
How often do you analyze, summarize, compile raw data?	As Needed; As Resources Permit; Varies
Report/publish data?	As Needed; As Resources Permit; Varies
Analyzed/summarized data made available?	Email; Hard Copy
Rely on data from others?	No
Data readily available on maps?	Partial
Data exist as GIS coverage?	No
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Okanogan County Department of Public Works
Database	Mazama Water Quality Protection System
Database acronym	MWQPS
Contact	Murray McCory - 509-826-3936 - murray@co.okanogan.wa.us
Overview of the monitoring program	13 sites with dedicated wells and surface locations are monitored for water quality twice per year, by the Okanogan County Department of Public Works. Samples are taken and sent to a lab. The purpose is to evaluate the ground water in the Methow River Basin=Ground Water Management Area.
Audience/customer/user	Washington State Department of Ecology
Objectives	Objective is to develop a baseline for evaluation of the past, current, and future water quality in the Methow River Basin=Ground Water Management area.
Authority	RCW/WAC
Relates to watershed health and salmon recovery	Indirectly Supports
Program ongoing?	Yes
Type of monitoring	Status Monitoring
Primary geographic focus	Select Watersheds; Select WRIAs
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Upper Columbia
Frequency of sample collection	Varies
Number of years data collected	More than 5
Data content	Freshwater Surface Water Quality; Ground Water Quality/Quantity
Other data	
Rate data quality/condition (0-18)	6
Rate design, scope, implementation (0-15)	6
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Hard Copy
Data contact person	Rosemary Clements - 509-422-7334 - rose@co.okanogan.wa.us
How often do you analyze, summarize, compile raw data?	As Needed
Report/publish data?	As Needed
Analyzed/summarized data made available?	Not Available
Rely on data from others?	No
Data readily available on maps?	Partial
Data exist as GIS coverage?	No
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Pierce County Water Programs
Database	Basin planning monitoring
Database acronym	
Contact	Heather Kibbey - 253-798-4664 - hkibbey@co.pierce.wa.us
Overview of the monitoring program	Basin planning to determine capital improvement needs for stormwater and water quality needs is being done in each of 26 basins in the county. Monitoring includes flow, and general water quality, as well as habitat conditions. Each plan is completed over 18 months. Some of the flow monitoring equipment is being left in each basin for long-term monitoring.
Audience/customer/user	Our results are used to determine priorities in the County's program to reduce or prevent flooding, and improve water quality under the NPDES program.
Objectives	To determine specific areas where flows or water quality are a problem.
Authority	Federal Law--NPDES stormwater permit
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Coarse Inventory
Primary geographic focus	Select Reaches
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Puget Sound
Frequency of sample collection	Continuous
Number of years data collected	1 to 5
Data content	Freshwater Surface Water Quality; Ground Water Quality/Quantity; Hydrology; Salmonid Passage
Other data	
Rate data quality/condition (0-18)	6
Rate design, scope, implementation (0-15)	6
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email
Data contact person	Heather Kibbey - 253-798-4664 - hkibbey@co.pierce.wa.us
How often do you analyze, summarize, compile raw data?	Varies
Report/publish data?	Varies
Analyzed/summarized data made available?	Email
Rely on data from others?	Yes
Data readily available on maps?	Partial
Data exist as GIS coverage?	Yes
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Pierce County Public Works and Utilities
Database	Wetland Mitigation Monitoring
Database acronym	
Contact	Mary Lynch - 253-798-7250 - mlynch@co.pierce.wa.us
Overview of the monitoring program	The program involves monitoring all wetland mitigation sites that have been constructed as a result of wetland impacts associated with transportation projects.
Audience/customer/user	Regulatory agencies.
Objectives	To determine/document if permit conditions and performance standards outlined in the mitigation plans are being met.
Authority	Corps of Engineers Section 404 of the Clean Water Act; Critical Areas Ordinance Title 18E
Relates to watershed health and salmon recovery	Indirectly Supports
Program ongoing?	Yes
Type of monitoring	Effectiveness
Primary geographic focus	Administrative Boundaries
Geospatially referenced?	Partially
Salmon Recovery Region(s)	Puget Sound
Frequency of sample collection	Annually
Number of years data collected	1 to 5
Data content	Hydrology; Salmonid Productivity; Wetlands
Other data	
Rate data quality/condition (0-18)	12
Rate design, scope, implementation (0-15)	13
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Hard Copy
Data contact person	Mary Lynch - 253-798-7250 - mlynch@co.pierce.wa.us
How often do you analyze, summarize, compile raw data?	Annually
Report/publish data?	Annually
Analyzed/summarized data made available?	Hard Copy
Rely on data from others?	No
Data readily available on maps?	Partial
Data exist as GIS coverage?	
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Snohomish County Public Works, Surface Water Management Division
Database	Vegetation Monitoring
Database acronym	
Contact	Scott Moore - 425-388-6455 - s.moore@co.snohomish.wa.us
Overview of the monitoring program	The Native Plant Program runs a Vegetation Monitoring program which relies heavily on trained plant steward volunteer participation to 1) assess survival, vigor, and cover of native plantings associated with county sponsored riparian and wetland restoration projects; 2) acquire baseline information of reference sites; and 3) analyze effectiveness of biocontrols on noxious weeds.
Audience/customer/user	Regional project managers and habitat restoration technicians conducting on the ground restoration projects.
Objectives	Establish a common set of protocols for post project vegetation monitoring to be used by several agencies, habitat enhancement groups, and landowners in order to compare efforts, methods, and effectiveness of different restoration practices on a range of sites.
Authority	Other
Relates to watershed health and salmon recovery	Indirectly Supports
Program ongoing?	Yes
Type of monitoring	Status Monitoring; Effectiveness
Primary geographic focus	Salmon Recovery Regions, ESUs; Select Reaches; Select WRIAs
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Puget Sound
Frequency of sample collection	Seasonally
Number of years data collected	1 to 5
Data content	Exotic Species; Landscape Activities - restoration projects; Riparian Habitat; Upland Habitat; Wetlands
Other data	
Rate data quality/condition (0-18)	13
Rate design, scope, implementation (0-15)	13
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email; Hard Copy
Data contact person	Scott Moore - 425-388-6455 - s.moore@co.snohomish.wa.us
How often do you analyze, summarize, compile raw data?	As Needed; Annually; As Resources Permit; Varies
Report/publish data?	As Needed; As Resources Permit; Varies
Analyzed/summarized data made available?	Email
Rely on data from others?	Yes
Data readily available on maps?	Partial
Data exist as GIS coverage?	No
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Snohomish County Surface Water Management
Database	Project evaluation
Database acronym	
Contact	Kathy Thornburgh - 425-388-3464 ex 4542 - k.thornburgh@co.snohomish.wa.us
Overview of the monitoring program	The program involves monitoring selected Snohomish County Surface Water Management capital and habitat restoration projects for effectiveness. Criteria for choosing projects are: large or costly projects, projects on big rivers, experimental designs, projects with a high risk of failure or negative impacts if they fail, or projects with high visibility or community involvement. Projects monitored include culvert replacements for fish passage, stream channel restoration, and large wood placement. Protocols are under development.
Audience/customer/user	The audience is County staff who are involved with capital and restoration projects - this includes engineers and watershed stewards.
Objectives	To evaluate whether capital and habitat restoration projects are meeting project-specific goals and to use the results to influence the design of future projects.
Authority	
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Effectiveness
Primary geographic focus	Select WRIAs
Geospatially referenced?	Partially
Salmon Recovery Region(s)	Puget Sound
Frequency of sample collection	Episodic
Number of years data collected	1 to 5
Data content	Instream Habitat; Riparian Habitat; Salmonid Passage; Waterway and Channel Modification
Other data	
Rate data quality/condition (0-18)	12
Rate design, scope, implementation (0-15)	
Charge money for the data?	
Data sensitive or proprietary?	No
Raw data made available?	Email
Data contact person	Kathy Thornburgh - 425-388-3464 ex 4542 - k.thornburgh@co.snohomish.wa.us
How often do you analyze, summarize, compile raw data?	Varies
Report/publish data?	Varies
Analyzed/summarized data made available?	Email
Rely on data from others?	No
Data readily available on maps?	No
Data exist as GIS coverage?	No
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Snohomish County Surface Water Management
Database	Water Quality Ambient Monitoring
Database acronym	
Contact	Kathy Thornburgh - 425-388-3464 ex 4542 - k.thornburgh@co.snohomish.wa.us
Overview of the monitoring program	The County conducts monthly water quality monitoring at 29 sites on 20 streams and rivers within Snohomish County. Samples are analyzed for temperature, dissolved oxygen, pH, conductivity, turbidity, fecal coliform bacteria, total suspended solids, nitrate, phosphorus, copper, lead, and zinc. The program assesses the biological health of streams by sampling benthic invertebrates. Staff deploy continuously recording temperature loggers during the summer to identify good habitat for fish.
Audience/customer/user	The data are primarily designed for use by the County to establish baseline conditions and identify trends. The data are available on the County web site and are used by citizens, consultants, tribes, cities, counties, and state agencies.
Objectives	The program is designed to establish baseline conditions for Snohomish County surface waters, to identify long-term trends in water quality, to identify problem areas for nonpoint pollutants, and to correlate nonpoint pollution with land use. The County uses the results to determine which educational programs and BMPs will most effectively reduce nonpoint pollution to surface waters.
Authority	RCW/WAC
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Status Monitoring
Primary geographic focus	Administrative Boundaries; Select Watersheds
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Puget Sound
Frequency of sample collection	Monthly
Number of years data collected	More than 5
Data content	Freshwater Surface Water Quality; Biological – other
Other data	
Rate data quality/condition (0-18)	15
Rate design, scope, implementation (0-15)	
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Web Downloadable www.co.snohomish.wa.us\publicwk\swm\spw_swhydro
Data contact person	Kathy Thornburgh - 425-388-3464 ex 4542 - k.thornburgh@co.snohomish.wa.us
How often do you analyze, summarize, compile raw data?	As Resources Permit
Report/publish data?	As Resources Permit
Analyzed/summarized data made available?	Web Downloadable www.co.snohomish.wa.us
Rely on data from others?	No
Data readily available on maps?	Partial
Data exist as GIS coverage?	Yes
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Thurston County
Database	Surface Water Quality
Database acronym	
Contact	Mark J. Swartout - 360-709-3079 - swartom@co.thurston.wa.us
Overview of the monitoring program	Thurston County monitors surface water quality. Other monitoring activities are usually a requirement of grants and as such the information is provided back to the granting agency. Information gathered from projects may also be incorporated into the county databases (GIS) depending on the project.
Audience/customer/user	The results of the Water Quality monitoring are available to county and city staff and the public. State agencies that receive the project information should make it available to the general public. If information is incorporated into the county database it is used by county employees and the public.
Objectives	The objectives for water quality monitoring is for baseline information and to help identify trends in various water quality parameters. For grant funded projects the objectives of the monitoring program would most likely be outline in the grant contract.
Authority	
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Coarse Inventory; Status Monitoring; Effectiveness
Primary geographic focus	Administrative Boundaries; Select Reaches; Select WRIAs
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Puget Sound
Frequency of sample collection	Varies
Number of years data collected	Varies
Data content	Freshwater Surface Water Quality; Ground Water Quality/Quantity; Hydrology
Other data	
Rate data quality/condition (0-18)	5
Rate design, scope, implementation (0-15)	3
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Hard Copy
Data contact person	Sue Davis - 360-754-4111 - davies@co.thurston.wa.us
How often do you analyze, summarize, compile raw data?	Varies
Report/publish data?	Varies
Analyzed/summarized data made available?	Hard Copy
Rely on data from others?	No
Data readily available on maps?	Unknown
Data exist as GIS coverage?	Unknown
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Thurston County Environmental Health Division
Database	Surface water quality ambient monitoring program
Database acronym	
Contact	Sue Davis - 360-754-4111 - daviss@co.thurston.wa.us
Overview of the monitoring program	The purpose of the ambient monitoring program is to collect and analyze water quality data on streams and lakes within Thurston County. It is to aid in the management of water resources within the County for beneficial uses such as recreation, shellfish and fish harvest, drinking water, etc. There is a locally funded base program which is augmented by short-term grant-funded project. The amount of data collected any given year varies spatial and temporally depending on resources available and current water resource issues, such as shellfish downgrades, fish kills, etc.
Audience/customer/user	The ambient water quality monitoring data generated by the program is used by local government water resource decision makers for policy, program and individual permit decisions; state and federal agencies; consultants; and the public.
Objectives	The program objectives are to determine water quality conditions in surface water bodies and to track the long trends in water quality in those water bodies. When grant-funded projects are undertaken, the objectives are typically to identify and correct sources of nonpoint pollution.
Authority	CFR; RCW 90.70; Puget Sound Water Quality Management Plan
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Status Monitoring; Effectiveness
Primary geographic focus	Select Reaches; Select Watersheds; Select WRIAs
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Puget Sound; Washington Coast
Frequency of sample collection	Varies
Number of years data collected	More than 5
Data content	Freshwater Surface Water Quality; Biological – other
Other data	
Rate data quality/condition (0-18)	12
Rate design, scope, implementation (0-15)	8
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email; Hard Copy; Web Viewable co.thurston.wa.us
Data contact person	Sue Davis - 360-754-4111 - daviss@co.thurston.wa.us
How often do you analyze, summarize, compile raw data?	Annually
Report/publish data?	Annually; Varies
Analyzed/summarized data made available?	Email; Hard Copy
Rely on data from others?	No
Data readily available on maps?	No
Data exist as GIS coverage?	No
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Thurston County Water and Waste Management
Database	Thurston County Basin Monitoring Program
Database acronym	TCBM
Contact	Mark Biever - 360-754-4681 - bievern@co.thurston.wa.us
Overview of the monitoring program	The program focuses on precipitation and stream flow volume monitoring within several defined basins in Thurston County. The program gathers data for watershed modeling and overall transport of water within the basins. The program also contains elements of groundwater monitoring for specific identified basins.
Audience/customer/user	The data is shared with interlocal partners consisting of Tumwater, Olympia, and Lacey. Data is also shared with state agencies and members of the public who request it.
Objectives	The program objectives are to collect and maintain data for the purpose of gauging watershed health as it pertains to development and use. The program has recently also become interested in Puget Sound water quality and salmon health. The groundwater component of the program is chiefly concerned with public safety.
Authority	RCW/WAC; Internal; Other
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Status Monitoring
Primary geographic focus	Administrative Boundaries; Salmon Recovery Regions, ESUs; Select Reaches; Select WRIs
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Puget Sound
Frequency of sample collection	Continuous
Number of years data collected	Varies
Data content	Geologic; Ground Water Quality/Quantity; Hydrology
Other data	
Rate data quality/condition (0-18)	11
Rate design, scope, implementation (0-15)	9
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email; Web Requested
Data contact person	Mark Biever - 360-754-4681 - bievern@co.thurston.wa.us
How often do you analyze, summarize, compile raw data?	Annually; Monthly; Varies
Report/publish data?	As Needed; Annually; Monthly
Analyzed/summarized data made available?	Email; Web Viewable
Rely on data from others?	No
Data readily available on maps?	Partial
Data exist as GIS coverage?	Yes
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Thurston County Dept of Water and Waste Management
Database	Water Resource Inventory Area (WRIA) 13 Water Rights/ Water Rights Mapping Project
Database acronym	WRIA 13 Water Rights Mapping
Contact	Tom Clingman - 356-357-2491 - clingmt@co.thurston.wa.us
Overview of the monitoring program	WRIA 13 includes the Deschutes River watershed and several smaller watersheds in south Puget Sound. Microfiche water right records from the Department of Ecology were copied and mapped into the Thurston County Geo-Data Center GIS system. Aerial photos were examined to assess current land use versus purpose of use in the water right records, to improve understanding of "paper rights" vs actual water use.
Audience/customer/user	Initial use is the WRIA 13 Watershed Planning Project under RCW 90.82. Mapping will improve allocation of rights by basin and waterbody. Initial identification of rights that appear non-used will assist in WRIA Plan development. Linkage of paper records to GIS system will also allow contact with owners of apparent Place of Use and other inquiries and management actions.
Objectives	Link paper records having very outdated descriptions (owner, address, etc.) with current parcel geography, to support a range of current and future uses toward improving water resource management in WRIA 13. Provides a basis for local and state agency action and private parties to obtain general planning-level information and water right-specific inquiries.
Authority	RCW 90.82
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Other
Primary geographic focus	Select WRIsAs
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Puget Sound
Frequency of sample collection	Varies
Number of years data collected	More than 5
Data content	
Other data	Water rights records on GIS map and linked data tables (Place of Use, Point of Withdrawal/Point of Diversion). Also initial assessment regarding original purpose of use versus current land use, identifying apparently converted lands where rights are no longer in use.
Rate data quality/condition (0-18)	12
Rate design, scope, implementation (0-15)	9
Charge money for the data?	Sometimes
Data sensitive or proprietary?	No
Raw data made available?	Email
Data contact person	Tom Clingman - 356-357-2491 - clingmt@co.thurston.wa.us
How often do you analyze, summarize, compile raw data?	As Resources Permit
Report/publish data?	As Resources Permit
Analyzed/summarized data made available?	Email
Rely on data from others?	Yes
Data readily available on maps?	No
Data exist as GIS coverage?	No
Type of funding	Short Term

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Thurston County Public Health and Social Services
Database	2001 Deschutes River Inflow Study
Database acronym	Inflow Study
Contact	Sammy Berg - 360-754-4111 - bergs@co.thurston.wa.us
Overview of the monitoring program	The 2001 Deschutes River Inflow Study was conducted in order to identify the locations of groundwater input into the Deschutes River, Thurston County. A crew walked a majority of the river, using a temperature probe to identify cold groundwater inputs and areas of drainage from the river into groundwater. A detailed seepage run was also conducted, quantifying the volume of groundwater and surface water interactions. The results were input into a GIS system. Additional seepage runs will be conducted in 2002 and later to monitor changes in gw/sw interactions as a result of changing rainfall conditions.
Audience/customer/user	The data generated by the 2001 Deschutes River Inflow Study was to be used by County and Ecology staff in their assessment of the groundwater and surface water interactions and better define the location and quantity of these interactions. This data was assumed to be useful in the processing of water right permits, as well as in the long-term management of groundwater resources and the improvement of the understanding of the interactions of the two water systems.
Objectives	The 2001 Deschutes River Inflow Study was designed to locate spring inputs to the river, as well as areas where surface water drains into groundwater aquifers. In addition, a detailed seepage run (with 20 stations along the mainstem and the majority of tributaries) was conducted to quantify the volumes of water gained or lost between stations. As 2001 was a drought year, additional seepage runs will be run in 2002 and later to quantify gains/losses under other rainfall conditions.
Authority	RCW 90.82 - WRIA 13 assessment
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Status Monitoring; Effectiveness
Primary geographic focus	Select Watersheds
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Puget Sound
Frequency of sample collection	Varies
Number of years data collected	1 to 5
Data content	Ground Water Quality/Quantity; Hydrology
Other data	
Rate data quality/condition (0-18)	15
Rate design, scope, implementation (0-15)	12
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email; Hard Copy
Data contact person	Sammy Berg - 360-754-4111 - bergs@co.thurston.wa.us
How often do you analyze, summarize, compile raw data?	Annually; Varies
Report/publish data?	Annually; Varies
Analyzed/summarized data made available?	Email
Rely on data from others?	No
Data readily available on maps?	Yes
Data exist as GIS coverage?	Yes
Type of funding	Short Term

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	City of Arlington
Database	Portage Creek Sub-basin Water Quality
Database acronym	
Contact	Bill Blake - 360-403-3440 - bblake@ci. Arlington.wa.us
Overview of the monitoring program	Installation of two in-situ Hydrolab Quanta water quality meters. The #1 meter will be installed on main Portage Creek, with the second installation on Prairie Creek a tributary to Portage. These meters will monitor Discharge, DO, Temp, Conductivity. The data will be collected every 15 minutes and stored in the computer. This information will be available on the City Web page when the system is completed. The Stillaguamish Tribe Natural Resource Water Quality lab is helping install and calibrate the system. This system will help monitor the effectiveness of Riparian, stormwater and water quality projects over time.
Audience/customer/user	There are two specific audiences. The main target will be to use this data to educate the citizens and agencies about the conditions of the watershed. The second audience will be Water Quality managers from various disciplines. This information will help everybody understand daily fluctuations and impacts resulting from various events or development activities. We will be able to identify the periods of the year when stream flow is predominately surface flow or ground water.
Objectives	Education and monitoring.
Authority	ESA
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	No
Type of monitoring	Status Monitoring
Primary geographic focus	Select Watersheds
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Puget Sound
Frequency of sample collection	Continuous
Number of years data collected	Less Than 1
Data content	Freshwater Surface Water Quality
Other data	
Rate data quality/condition (0-18)	9
Rate design, scope, implementation (0-15)	9
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Web Viewable
Data contact person	Bill Blake - 360-403-3440 - bblake@ci. Arlington.wa.us
How often do you analyze, summarize, compile raw data?	As Permitted
Report/publish data?	As Permitted
Analyzed/summarized data made available?	Web Viewable
Rely on data from others?	No
Data readily available on maps?	No
Data exist as GIS coverage?	No
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	City of Auburn
Database	Water Quality Data
Database acronym	
Contact	Aaron C. Nix - 253-288-7432 - anix@ci.auburn.wa.us
Overview of the monitoring program	Monitor the quality of the city's water resources (i.e. stormwater, drinking water)
Audience/customer/user	City personnel and water customers
Objectives	
Authority	RCW/WAC
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	No
Type of monitoring	Status Monitoring
Primary geographic focus	Select Watersheds
Geospatially referenced?	Partially
Salmon Recovery Region(s)	Puget Sound
Frequency of sample collection	Varies
Number of years data collected	1 to 5
Data content	Freshwater Surface Water Quality; Ground Water Quality/Quantity
Other data	
Rate data quality/condition (0-18)	7
Rate design, scope, implementation (0-15)	5
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Hard Copy
Data contact person	Chris Thorn - 253-804-5065 - cthorn@ci.auburn.wa.us
How often do you analyze, summarize, compile raw data?	As Needed
Report/publish data?	Annually
Analyzed/summarized data made available?	Hard Copy
Rely on data from others?	Yes
Data readily available on maps?	No
Data exist as GIS coverage?	Yes
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	City of Auburn
Database	Wetland mitigated areas
Database acronym	
Contact	Aaron C. Nix - 253-288-7432 - anix@ci.auburn.wa.us
Overview of the monitoring program	Monitor and attempt to assure the success of wetland mitigation projects so that they meet their intended design and function.
Audience/customer/user	City personnel
Objectives	N/A
Authority	RCW/WAC
Relates to watershed health and salmon recovery	Indirectly Supports
Program ongoing?	Yes
Type of monitoring	Operational
Primary geographic focus	Administrative Boundaries
Geospatially referenced?	No
Salmon Recovery Region(s)	Puget Sound
Frequency of sample collection	Annually
Number of years data collected	1 to 5
Data content	Wetlands
Other data	
Rate data quality/condition (0-18)	9
Rate design, scope, implementation (0-15)	9
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Hard Copy
Data contact person	Aaron C. Nix - 253-288-7432 - anix@ci.auburn.wa.us
How often do you analyze, summarize, compile raw data?	As Needed
Report/publish data?	As Needed
Analyzed/summarized data made available?	Hard Copy
Rely on data from others?	Yes
Data readily available on maps?	Partial
Data exist as GIS coverage?	Yes
Type of funding	Short Term

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	City of Bremerton
Database	Water Resources Monitoring
Database acronym	
Contact	Daniel Adams - 360-478-2347 - dadams@ci.bremerton.wa.us
Overview of the monitoring program	The purpose of the Bremerton Water Resource Monitoring Program is compliance with regulations related to water system management/operations, biosolids application and combined sewer overflow monitoring. Data are collected on the Port Washington Narrows, Anderson Creek, Gorst Creek and Union River.
Audience/customer/user	Regulatory agencies are the primary audience for City of Bremerton monitoring programs. Other interested parties include internal clients and the Puget Soundkeepers Alliance (PSA)..
Objectives	Monitoring goals include compliance with State and Federal regulations, compliance with consent decree and water system management/operation. Additional objectives are the generation of data necessary for planning, watershed management and discharge monitoring.
Authority	CFR; Court; RCW/WAC
Relates to watershed health and salmon recovery	Indirectly Supports
Program ongoing?	Yes
Type of monitoring	Operational; Status Monitoring
Primary geographic focus	Select Reaches; Select Watersheds
Geospatially referenced?	Partially
Salmon Recovery Region(s)	Puget Sound
Frequency of sample collection	Varies
Number of years data collected	More than 5
Data content	Climate and Ocean Condition; Freshwater Surface Water Quality; Ground Water Quality/Quantity; Hydrology; Marine/Estuarine Water Quality; Nearshore
Other data	
Rate data quality/condition (0-18)	14
Rate design, scope, implementation (0-15)	12
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Hard Copy
Data contact person	Kathleen Cahal - 360-478-2315 - kcahall@ci.bremerton.wa.us
How often do you analyze, summarize, compile raw data?	Varies
Report/publish data?	Varies
Analyzed/summarized data made available?	Hard Copy
Rely on data from others?	Yes
Data readily available on maps?	No
Data exist as GIS coverage?	No
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	City of Clyde Hill
Database	Lake Monitoring Program
Database acronym	
Contact	Mitch Wasserman - 425-453-7800 - Mitch@clydehill.org
Overview of the monitoring program	Periodically monitor the inflow and outflow from the 2 lakes in the City. We test for water quality.
Audience/customer/user	We do this as part of our storm water management plan and it is therefore used internally and is periodically requested by the homeowners living around the lakes.
Objectives	To insure that the water quality of the City's storm water entering the lakes are within accepted limits.
Authority	Other
Relates to watershed health and salmon recovery	Indirectly Supports
Program ongoing?	Yes
Type of monitoring	Operational
Primary geographic focus	Other
Geospatially referenced?	No
Salmon Recovery Region(s)	Puget Sound
Frequency of sample collection	Alternating Yrs
Number of years data collected	1 to 5
Data content	Hydrology
Other data	
Rate data quality/condition (0-18)	13
Rate design, scope, implementation (0-15)	13
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Not Available
Data contact person	Allan Newbill, City Engineer - 425-453-7800 – Allan@clydehill.org
How often do you analyze, summarize, compile raw data?	Never
Report/publish data?	Never
Analyzed/summarized data made available?	Hard Copy
Rely on data from others?	No
Data readily available on maps?	No
Data exist as GIS coverage?	No
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	City of Des Moines
Database	Water Quality Monitoring Program
Database acronym	
Contact	Loren Reinhold - 206-870-6524 - lreinhold@cityofdesmoines.com
Overview of the monitoring program	The City of Des Moines just concluded a 5-year monitoring program that included the testing of normal flows and storm flows from the four major resource streams within the city limits - Des Moines Creek, Massey Creek, Barnes Creek and McSorley Creek. The purpose was to accumulate baseline data for water quality that included tests for temperature, dissolved oxygen, fecal coliform, nutrients, turbidity, pH, and heavy metals such as lead, copper and zinc. Also included in the program was a bi-annual monitoring of benthic invertebrate, an indicator of stream health. This program concluded in 2001, but will continue on a limited basis in 2003.
Audience/customer/user	Des Moines citizens and to a lesser extent the adjacent communities.
Objectives	To obtain baseline information. This information will compared to monitoring results in the near future to determine the effectiveness of the City's stormwater program for improving stream water quality.
Authority	Unknown
Relates to watershed health and salmon recovery	Indirectly Supports
Program ongoing?	No
Type of monitoring	Coarse Inventory
Primary geographic focus	Administrative Boundaries
Geospatially referenced?	No
Salmon Recovery Region(s)	Puget Sound
Frequency of sample collection	Episodic
Number of years data collected	1 to 5
Data content	Freshwater Surface Water Quality; Hydrology; Other
Other data	Benthic Invertebrates
Rate data quality/condition (0-18)	11
Rate design, scope, implementation (0-15)	8
Charge money for the data?	Yes
Data sensitive or proprietary?	No
Raw data made available?	Email; Hard Copy
Data contact person	Loren Reinhold - 206-870-6524 - lreinhold@cityofdesmoines.com
How often do you analyze, summarize, compile raw data?	As Needed
Report/publish data?	As Needed
Analyzed/summarized data made available?	Email
Rely on data from others?	No
Data readily available on maps?	No
Data exist as GIS coverage?	No
Type of funding	Short Term

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	City of Duvall
Database	Stream Survey Grant
Database acronym	
Contact	George Steirer - 425-788-2779 - george.steirer@cityofduvall.co
Overview of the monitoring program	A survey of stream conditions is being conducted right now by Herrera Environmental Consultants for the City of Duvall. Information will include conditions of the stream (bank stability, vegetation, woody debris, ripple, etc) every 100' or less, culvert data, and mapping of the streams. This data is being collected for the three streams inside the city limits (Ceoclemons, Thayer, and Rasmunson Creek). The information will be used for applying for restoration grants. No other monitoring has been done by the city to my knowledge.
Audience/customer/user	Government agencies with grant money for restoration.
Objectives	Stream restoration, including, but not limited to, culvert replacement.
Authority	Not required by any law.
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	No
Type of monitoring	Unknown
Primary geographic focus	Administrative Boundaries
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Puget Sound
Frequency of sample collection	Varies
Number of years data collected	Less Than 1
Data content	Biological - other; Hydrology; Instream Habitat; Landscape Activities - restoration projects; Landscape/features inventory; Land Use; Riparian Habitat; Salmonid Passage; Salmonid Productivity; Upland Habitat
Other data	Not Applicable
Rate data quality/condition (0-18)	14
Rate design, scope, implementation (0-15)	11
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Hard Copy; Not Available
Data contact person	George Steirer - 425-788-2779 - george.steirer@cityofduvall.co
How often do you analyze, summarize, compile raw data?	As Needed
Report/publish data?	
Analyzed/summarized data made available?	Hard Copy; Web Viewable - In the future (when the project is complete) at www.cityofduvall.com
Rely on data from others?	Yes
Data readily available on maps?	Partial
Data exist as GIS coverage?	Yes
Type of funding	Short Term

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	City of Forks
Database	Mill Creek Monitoring Program
Database acronym	
Contact	Rod Fleck - 360-374-5412 - rodf.forks@centurytel.net
Overview of the monitoring program	A project to collect DOE/WDFW water quality data on Mill Creek which flows from state managed timber lands through an identified UGA into the Bogachiel. Data is suppose to be taken quarterly, but since this is self funded (both fiscally and with time) it is not always the highest priority.
Audience/customer/user	The data is intended for use by any individual or agency. The QA/QC protocols were developed by the UW's Olympic Natural Resources Center to meet various state and federal reporting requirements.
Objectives	Monitoring of a stream that literally flows through a rural UGA and various types of land uses. The objective is to learn more about the stream and learn how various projects associated with salmon recovery and or flood water management affect the stream.
Authority	No legal requirement - been of interest to the City as a steward and property owner.
Relates to watershed health and salmon recovery	Indirectly Supports
Program ongoing?	Yes
Type of monitoring	Coarse Inventory; Effectiveness
Primary geographic focus	Select Reaches
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Washington Coast
Frequency of sample collection	Varies
Number of years data collected	1 to 5
Data content	Freshwater Surface Water Quality; Instream Habitat; Land Use
Other data	
Rate data quality/condition (0-18)	12
Rate design, scope, implementation (0-15)	7
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Hard Copy; Web Downloadable; Web Viewable http://www.onrc.washington.edu/millcreek/
Data contact person	Rod Fleck - 360-374-5412 - rodf.forks@centurytel.net
How often do you analyze, summarize, compile raw data?	As Needed
Report/publish data?	As Needed
Analyzed/summarized data made available?	Web Downloadable; Web Viewable http://www.onrc.washington.edu/millcreek/
Rely on data from others?	Unknown
Data readily available on maps?	Yes
Data exist as GIS coverage?	Yes
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	City of Issaquah
Database	Issaquah Aquatic Resource Monitoring Program
Database acronym	
Contact	Chrys Bertolotto - 425-837-3442 - chrysb@ci.issaquah.wa.us
Overview of the monitoring program	The Aquatic Resource Monitoring Program was implemented in 1998 (based in part on the Issaquah Basin Plan Recommendation BW-30) as a long-term effort to assess aquatic resources within the city and evaluate the success of implementation efforts for flood control, water quality and habitat improvements. It involves volunteers and staff.
Audience/customer/user	Data is used by city staff for decision making and policy purposes, to assess effectiveness of education/BMP efforts, retrofits and development regulations. It is used to communicate state of our waters to city elected officials. It has been used to help determine the limiting factors for salmonids in the Issaquah Basin in the WRIA 8 Technical Reconnaissance effort.
Objectives	Determine baseline conditions and track changes over time of water quality in the creeks and storm discharges in the City. Monitor surface water elevations in Issaquah Creek during annual peak events. Monitor stream flows at several stations to better define interactions between surface and groundwater in mainstem Issaquah Creek. Assess the biological components of the creeks and track changes over time. Examine the changes in stream cross sectional areas to assess stream channel migration and changes caused by increasing urbanization. Involve citizens and community groups in monitoring to assist in data collecting and educating the citizenry about resource and water quality issues.
Authority	Issaquah Basin Plan Recommendation and local response to increased growth.
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Status Monitoring; Effectiveness
Primary geographic focus	Administrative Boundaries
Geospatially referenced?	Partially
Salmon Recovery Region(s)	Puget Sound
Frequency of sample collection	Varies
Number of years data collected	1 to 5
Data content	Biological - other; Exotic Species; Freshwater Surface Water Quality; Hydrology; Instream Habitat; Riparian Habitat; Waterway and Channel Modification; Wetlands
Other data	
Rate data quality/condition (0-18)	15
Rate design, scope, implementation (0-15)	15
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Hard Copy; Web Requested
Data contact person	Chrys Bertolotto - 425-837-3442 - chrysb@ci.issaquah.wa.us
How often do you analyze, summarize, compile raw data?	Annually; Varies
Report/publish data?	Every 2 Yrs
Analyzed/summarized data made available?	Hard Copy; Web Viewable www.ci.issaquah.wa.us/rco/soow/htm
Rely on data from others?	No
Data readily available on maps?	No
Data exist as GIS coverage?	No
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	City of Issaquah
Database	Issaquah Restoration Stewardship Program
Database acronym	
Contact	Chrys Bertolotto - 425-837-3442 - chrysb@ci.issaquah.wa.us
Overview of the monitoring program	This program focuses on assessing the effectiveness of City of Issaquah riparian and in-stream restoration projects in meeting desired goals. Volunteers are trained and provide the bulk of the monitoring manpower.
Audience/customer/user	City restoration site managers, agencies providing permits allowing restoration (WDFW, Army Corps of Engineers), City Stewardship Coordinator. Non-city restoration site managers have expressed interest in a report on Issaquah's restoration monitoring results.
Objectives	To determine if desired vegetative cover is being established. Assess whether terrestrial wildlife and birds are using restoration sites to a greater extent than during baseline surveys. Document the changes created in-stream by placement of wood and bank stabilization structures. Identify problems at individual restoration areas to make improvements as needed. To identify the true benefits and costs of restoration strategies in improving water quality and wildlife and fish habitat.
Authority	Issaquah Basin Plan Recommendations
Relates to watershed health and salmon recovery	Indirectly Supports
Program ongoing?	Yes
Type of monitoring	Status Monitoring; Effectiveness
Primary geographic focus	Select Reaches
Geospatially referenced?	No
Salmon Recovery Region(s)	Puget Sound
Frequency of sample collection	Varies
Number of years data collected	1 to 5
Data content	Biological - other; Exotic Species; Instream Habitat; Landscape Activities - restoration projects; Riparian Habitat
Other data	
Rate data quality/condition (0-18)	14
Rate design, scope, implementation (0-15)	13
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Not Available www.ci.issaquah.wa.us/rco
Data contact person	Chrys Bertolotto - 425-837-3442 - chrysb@ci.issaquah.wa.us
How often do you analyze, summarize, compile raw data?	As Resources Permit; Every 2 Yrs
Report/publish data?	As Resources Permit
Analyzed/summarized data made available?	Web Viewable www.ci.issaquah.wa.us/rco
Rely on data from others?	No
Data readily available on maps?	No
Data exist as GIS coverage?	No
Type of funding	Short Term

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	City of Kennewick
Database	Solid Waste Landfill and Street Waste Facility Monitoring
Database acronym	SWOM
Contact	Jack Clark - 509-585-4317 - jack-clark@ci.kennewick.wa.us
Overview of the monitoring program	To provide assurances that the quality and quantity of solid waste disposed of by the City of Kennewick meets criteria established in Model Toxics Control Act (MTCA) and Minimum Functional Standards for Municipal Solid Waste (MFSMSW). The program monitors material disposed in an inert/demolition landfill as well as street waste material produced from maintaining roadway and storm drainage.
Audience/customer/user	The audience is: (1) County Health Department (2) State Department of Ecology and (3) City staff for controlling the efficiency and effectiveness of process and operations.
Objectives	The objectives of the monitoring program is to provide analytical data that is defensible in a court of law. Provide analytical data to facility operators so they can produce a final product that assures quality.
Authority	CFR; Local; RCW/WAC; MTCA and MFSMSW; KMC Title 14.22
Relates to watershed health and salmon recovery	Indirectly Supports
Program ongoing?	Yes
Type of monitoring	Operational Effectiveness
Primary geographic focus	Administrative Boundaries
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Middle Columbia
Frequency of sample collection	Seasonally
Number of years data collected	More than 5
Data content	Land Use
Other data	
Rate data quality/condition (0-18)	16
Rate design, scope, implementation (0-15)	13
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email; Hard Copy; Web Requested
Data contact person	Jack Clark - 509-585-4317 - jack-clark@ci.kennewick.wa.us
How often do you analyze, summarize, compile raw data?	Monthly
Report/publish data?	Annually
Analyzed/summarized data made available?	Email; Web Requested
Rely on data from others?	No
Data readily available on maps?	No
Data exist as GIS coverage?	No
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	City of Kennewick
Database	Wastewater Treatment Plant Compliance Monitoring
Database acronym	POTW NPDES
Contact	Jack Clark - 509-585-4317 - jack-clark@ci.kennewick.wa.us
Overview of the monitoring program	Water quality monitoring to assure compliance with Federal NPDES Permit. The program monitors discharges to the Columbia River from the POTW. Quality and quantity of effluents entering the river are measured.
Audience/customer/user	1) Federal Regulators 2) State Regulators 3) Plant Operators for process control 4) Assurances to the public that adequate safe guards are being employed to protect the environment.
Objectives	To provide analytical data that is (1) defensible in a court of law and (2) assure plant processes are being utilized in an efficient and effective manner. Want to assure compliance with state and federal water quality regulations (Clean Water Act). Want to assure compliance with NPDES parameters.
Authority	CFR; Local; RCW/WAC; Clean Water Act; KMC Title 14
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Operational; Status Monitoring; Effectiveness
Primary geographic focus	Administrative Boundaries
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Middle Columbia
Frequency of sample collection	Daily
Number of years data collected	More than 5
Data content	Freshwater Surface Water Quality; Hydrology; Biological – other
Other data	
Rate data quality/condition (0-18)	16
Rate design, scope, implementation (0-15)	13
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email; Hard Copy; Web Requested
Data contact person	John Griffin - 509-585-4534 - JohnG@ci.kennewick.wa.us
How often do you analyze, summarize, compile raw data?	Daily
Report/publish data?	Monthly
Analyzed/summarized data made available?	Email; Web Requested
Rely on data from others?	No
Data readily available on maps?	No
Data exist as GIS coverage?	No
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	City of Kennewick
Database	Water Production Monitoring
Database acronym	WTOM
Contact	Jack Clark - 509-585-4317 - jack-clark@ci.kennewick.wa.us
Overview of the monitoring program	The purpose of the monitoring programs is to assure the quality and quantity of potable water delivered to the residents of Kennewick meets or exceeds state and federal requirements. The monitoring is for surface water pumped and treated from the Columbia River along with well water from a ground water source.
Audience/customer/user	1. Federal regulators 2. State Regulators 3. 60,000 customers daily in the service delivery area 4. Plant operations staff who control processes for producing the water delivered.
Objectives	We measure the quantity and quality of the product coming into a production facility and its exit to the general public for consumption. We need to assure a high quality complies or exceeds current regulations. Monitoring assures adequate analytical data is available and defensible in a court of law to produce a product delivered to consumers for consumption.
Authority	RCW/WAC; CFR; Local
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Operational; Status Monitoring; Effectiveness
Primary geographic focus	Administrative Boundaries
Geospatially referenced?	Yes
1Salmon Recovery Region(s)	Middle Columbia
Frequency of sample collection	Daily
Number of years data collected	More than 5
Data content	Biological - other; Freshwater Surface Water Quality; Ground Water Quality/Quantity; Hydrology; Salmonid Passage
Other data	
Rate data quality/condition (0-18)	18
Rate design, scope, implementation (0-15)	15
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email; Hard Copy; Web Requested
Data contact person	John Griffin - 509-585-4534 - JohnG@ci.kennewick.wa.us
How often do you analyze, summarize, compile raw data?	Daily
Report/publish data?	Monthly
Analyzed/summarized data made available?	Email; Web Requested
Rely on data from others?	No
Data readily available on maps?	No
Data exist as GIS coverage?	No
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	City of Lacey
Database	Woodland Creek Ambient Monitoring
Database acronym	
Contact	Julie Rector - 360-491-5600 - jrector@ci.lacey.wa.us
Overview of the monitoring program	Monthly monitoring for flow, temp, pH, DO, cond., turbidity, FC, nitrate nitrite-N. One site at Draham Rd monitored year-round; other sites added bimonthly when creek has flow.
Audience/customer/user	City of Lacey
Objectives	Document ambient water quality conditions in Woodland Creek within city of Lacey boundaries. Data are intended to complement ambient monitoring conducted by Thurston County staff near the mouth of Woodland Creek.
Authority	Other
Relates to watershed health and salmon recovery	Indirectly Supports
Program ongoing?	Yes
Type of monitoring	Status Monitoring
Primary geographic focus	Select Reaches
Geospatially referenced?	No
Salmon Recovery Region(s)	Puget Sound
Frequency of sample collection	Monthly
Number of years data collected	1 to 5
Data content	Freshwater Surface Water Quality
Other data	
Rate data quality/condition (0-18)	10
Rate design, scope, implementation (0-15)	9
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email; Hard Copy
Data contact person	Julie Rector - 360-491-5600 - jrector@ci.lacey.wa.us
How often do you analyze, summarize, compile raw data?	Monthly
Report/publish data?	As Needed
Analyzed/summarized data made available?	As Available
Rely on data from others?	No
Data readily available on maps?	No
Data exist as GIS coverage?	No
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	City of Lake Forest Park
Database	StreamKeepers Stream Monitoring
Database acronym	
Contact	Roger Olstad - 206-364-3598 - rolstad@earthlink.net
Overview of the monitoring program	Quarterly monitoring of two streams (McAleer and Lyon) and their tributaries for basic physical conditions, e.g. temp., pH, d.o., turbidity, etc.
Audience/customer/user	City officials, interested public, etc.
Objectives	To observe and protect the health of the streams in LFP and build public awareness of these streams and the importance of stream conditions to salmon and other fish habitat.
Authority	Other
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Status Monitoring; Effectiveness
Primary geographic focus	Select Watersheds
Geospatially referenced?	No
Salmon Recovery Region(s)	Puget Sound
Frequency of sample collection	Seasonally
Number of years data collected	More than 5
Data content	Freshwater Surface Water Quality; Instream Habitat
Other data	
Rate data quality/condition (0-18)	15
Rate design, scope, implementation (0-15)	15
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email; Hard Copy
Data contact person	Bill Bennett - 206-362-6503 - jworthen@cmc.net
How often do you analyze, summarize, compile raw data?	As Needed
Report/publish data?	As Needed
Analyzed/summarized data made available?	Hard Copy
Rely on data from others?	Yes
Data readily available on maps?	No
Data exist as GIS coverage?	No
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	City of Mount Vernon
Database	Inventory and Evaluation of the Kulshan and Trumpeter Stream Systems
Database acronym	
Contact	Jennifer Aylor - 360-336-6232 - jennifera@ci.mount-vernon.wa.us
Overview of the monitoring program	The purpose of this report is four-fold: (1) identify and document existing resources/habitat within the Kulshan and Trumpeter streams of North Mount Vernon; (2) evaluate degraded habitat conditions; (3) compile a list of prioritized recommendations to achieve recovery of fish species of concern within the northern streams of the City and its Urban Growth Area; and (4) begin to develop long range comprehensive planning to protect sensitive areas.
Audience/customer/user	The report was developed for use primarily by staff and electeds. The document will help city staff and officials guide development away from prioritized areas of protection, and help facilitate restoration in key locations.
Objectives	See "Overview" above.
Authority	CFR – Endangered Species Act
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	No
Type of monitoring	Operational; Status Monitoring; Effectiveness
Primary geographic focus	Select Reaches
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Puget Sound
Frequency of sample collection	Episodic
Number of years data collected	Less Than 1
Data content	Freshwater Surface Water Quality; Instream Habitat; Landscape Activities - restoration projects; Land Use; Riparian Habitat; Salmonid Passage; Salmonid Productivity; Upland Habitat; Waterway and Channel Modification; Wetlands
Other data	
Rate data quality/condition (0-18)	16
Rate design, scope, implementation (0-15)	13
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Not Available
Data contact person	Jennifer Aylor - 360-336-6232 - jennifera@ci.mount-vernon.wa.us
How often do you analyze, summarize, compile raw data?	As Needed
Report/publish data?	As Resources Permit
Analyzed/summarized data made available?	Hard Copy
Rely on data from others?	No
Data readily available on maps?	Yes
Data exist as GIS coverage?	Yes
Type of funding	Short Term

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	City of Mount Vernon
Database	Inventory and Evaluation of Stream and Riparian Habitats
Database acronym	
Contact	Jennifer Aylor - 360-336-6232 - jennifera@ci.mount-vernon.wa.us
Overview of the monitoring program	Shannon and Wilson obtained good baseline data of Kulshan and Trumpeter streams in Phase I of this inventory effort. Phase II included similar efforts for Maddox Creek, Carpenter Creek, and the remaining unnamed tributaries in the city and its Urban Growth Area.
Audience/customer/user	The report was developed for use primarily by staff and electeds. The document will help city staff and officials guide development away from prioritized areas of protection, and help facilitate restoration in key locations.
Objectives	The objectives of this report are seven-fold: 1. Inventory streams using the Urban Stream Baseline Evaluation Methodology (USBEM). 2. Document results of the inventory using a Geographic Information System and spreadsheets. 3. Determine riparian buffer widths by rating Mount Vernon streams according to the current Environmentally-Sensitive Areas Ordinance (ESAO), salmonid distribution, and habitat conditions. 4. Evaluate the results of stream inventory qualitatively and quantitatively in a method similar to that employed during the first phase (Kulshan and Trumpeter Stream Inventory). 5. Develop a list of recommendations for enhancement and conservation actions. 6. Prioritize the enhancement and conservation recommendations for implementation. 7. Report findings to the City of Mount Vernon and its citizens.
Authority	CFR – Endangered Species Act
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	No
Type of monitoring	Operational; Status Monitoring; Effectiveness
Primary geographic focus	Select Reaches
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Puget Sound
Frequency of sample collection	Episodic
Number of years data collected	Less Than 1
Data content	Freshwater Surface Water Quality; Instream Habitat; Landscape Activities - restoration projects; Land Use; Riparian Habitat; Salmonid Passage; Salmonid Productivity; Upland Habitat; Waterway and Channel Modification; Wetlands
Other data	
Rate data quality/condition (0-18)	16
Rate design, scope, implementation (0-15)	13
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Not Available
Data contact person	Jennifer Aylor - 360-336-6232 - jennifera@ci.mount-vernon.wa.us
How often do you analyze, summarize, compile raw data?	As Needed
Report/publish data?	As Permitted
Analyzed/summarized data made available?	Hard Copy
Rely on data from others?	No
Data readily available on maps?	Yes
Data exist as GIS coverage?	Yes
Type of funding	Short Term

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	City of Normandy Park
Database	Stream Water Quality Monitoring
Database acronym	
Contact	Stephen Bennett - 206-248-7603 - steveb@ci.normandy-park.wa.us
Overview of the monitoring program	As a part of the Airport Cities Coalition, Normandy Park has been monitoring the quality of Miller, Walker and Des Moines creek waters. Measurements were taken for DO, pH, Turbidity, temp. in addition to some baseline lab tests for heavy metals and deicing chemicals.
Audience/customer/user	The city governments and the Airport Cities Coalition
Objectives	Ensure that upstream development including airport expansion is not harming stream habitat.
Authority	Unknown
Relates to watershed health and salmon recovery	Indirectly Supports
Program ongoing?	Yes
Type of monitoring	Unknown
Primary geographic focus	Select Watersheds
Geospatially referenced?	No
Salmon Recovery Region(s)	Puget Sound
Frequency of sample collection	Seasonally
Number of years data collected	1 to 5
Data content	Freshwater Surface Water Quality
Other data	
Rate data quality/condition (0-18)	2
Rate design, scope, implementation (0-15)	5
Charge money for the data?	No
Data sensitive or proprietary?	Yes
Raw data made available?	Not Available
Data contact person	John Strand - JStrand427@aol.com
How often do you analyze, summarize, compile raw data?	As Needed
Report/publish data?	As Needed
Analyzed/summarized data made available?	Not Available
Rely on data from others?	No
Data readily available on maps?	No
Data exist as GIS coverage?	Unknown
Type of funding	Short Term

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	City of Olympia
Database	Surface, stormwater, ground and marine water monitoring
Database acronym	
Contact	Andy Haub - 360-943-4796 - ahaub@ci.olympia.wa.us
Overview of the monitoring program	The City of Olympia supports several monitoring programs through utility funds. The efforts provide ambient and project specific monitoring of surface, stormwater, ground, and marine waters. Commonly monitored parameters include conventional chemicals, macroinvertebrates, flows, and priority species use.
Audience/customer/user	Monitoring information is summarized for public agency use and commonly reformatted for public use.
Objectives	The monitoring programs provide a basic understanding of chemical and biological characteristics in the various water bodies.
Authority	Internal; Local
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Coarse Inventory
Primary geographic focus	Administrative Boundaries
Geospatially referenced?	No
Salmon Recovery Region(s)	Puget Sound
Frequency of sample collection	Seasonally
Number of years data collected	More than 5
Data content	Biological - other; Freshwater Surface Water Quality; Ground Water Quality/Quantity; Hydrology; Instream Habitat; Land Use
Other data	
Rate data quality/condition (0-18)	10
Rate design, scope, implementation (0-15)	6
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Hard Copy
Data contact person	Andy Haub - 360-943-4796 - ahaub@ci.olympia.wa.us
How often do you analyze, summarize, compile raw data?	Annually
Report/publish data?	Annually
Analyzed/summarized data made available?	Email
Rely on data from others?	Yes
Data readily available on maps?	Partial
Data exist as GIS coverage?	Unknown
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	City of Port Townsend
Database	Watershed Monitoring
Database acronym	
Contact	Ian Jablonski - 360-379-5001 - ianj@ci.port-townsend.wa.us
Overview of the monitoring program	The City of Port Townsend has an unfiltered municipal water supply. We monitor turbidity, water temperature, stream flow, organic and inorganic chemicals required by the EPA drinking water program, fecal and total coliform bacteria and patrol the watershed monitoring general conditions. City is a cooperater with USGS for stream flows and NRCS for operation of Mt. Crag SNOTEL.
Audience/customer/user	The Washington State Department of Health receives water quality monitoring data and the City is required to pass the information on to our customers via the Consumer Confidence Reports. We also share the data with groups involved in restoration efforts in the watershed.
Objectives	The primary objectives are to comply with drinking water regulations and to monitor watershed health as it relates to drinking water.
Authority	CFR; 246-290 WAC
Relates to watershed health and salmon recovery	Indirectly Supports
Program ongoing?	Yes
Type of monitoring	Operational
Primary geographic focus	Select Watersheds
Geospatially referenced?	Partially
Salmon Recovery Region(s)	Puget Sound
Frequency of sample collection	Varies
Number of years data collected	More than 5
Data content	Freshwater Surface Water Quality; Hydrology
Other data	
Rate data quality/condition (0-18)	10
Rate design, scope, implementation (0-15)	10
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email
Data contact person	Ian Jablonski - 360-379-5001 - ianj@ci.port-townsend.wa.us
How often do you analyze, summarize, compile raw data?	As Needed; Annually; Monthly
Report/publish data?	As Needed; Monthly
Analyzed/summarized data made available?	Email
Rely on data from others?	No
Data readily available on maps?	No
Data exist as GIS coverage?	No
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	City of Redmond Public Works Natural Resources Division
Database	Environmental Monitoring and Compliance
Database acronym	EMC
Contact	Daren Baysinger - 425-556-2722 - dbaysinger@ci.redmond.wa.us
Overview of the monitoring program	Focus of monitoring includes hydrology (rainfall and flow), benthic sampling, and basic water chemistry parameters. Both baseline and project specific monitoring is conducted.
Audience/customer/user	Engineers, planners, enforcement staff, policy advisors, construction staff.
Objectives	Primary objective is to help ensure water quality is cool, clean, safe for human and animal contact, is aesthetically pleasing and of adequate quantity. To achieve these objectives our approach is to first understand baseline water quality conditions/trends and various flow conditions within larger streams, tributaries and major stormwater conveyance systems within city boundaries. Then, using this understanding, develop a more comprehensive approach to resolve identified problems (including post-project monitoring/evaluation) that may include one or more of the following disciplines. Engineers, Scientists, Education & Outreach staff, and Enforcement staff. Work may include evaluating internal policies and making revisions as necessary in order to fully achieve project/program objectives.
Authority	Other
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Coarse Inventory; Status Monitoring; Effectiveness
Primary geographic focus	Administrative Boundaries
Geospatially referenced?	
Salmon Recovery Region(s)	Puget Sound
Frequency of sample collection	Varies
Number of years data collected	Varies
Data content	Freshwater Surface Water Quality; Hydrology; Biological – other
Other data	
Rate data quality/condition (0-18)	10
Rate design, scope, implementation (0-15)	8
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email
Data contact person	Daren Baysinger - 425-556-2722 - dbaysinger@ci.redmond.wa.us
How often do you analyze, summarize, compile raw data?	As Resources Permit; Weekly
Report/publish data?	As Needed
Analyzed/summarized data made available?	Email
Rely on data from others?	No
Data readily available on maps?	Partial
Data exist as GIS coverage?	Yes
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	City of Shoreline
Database	Ambient stream wetland and lake monitoring
Database acronym	
Contact	Andy Loch - 206-546-1925 - aloch@ci.shoreline.wa.us
Overview of the monitoring program	The program is aimed at acquiring commonly collected baseline data on the status of the chemical, physical, and biological integrity of our surface waters within the city of Shoreline. The program is currently in its first year of operations.
Audience/customer/user	It is anticipated that the data will be used by a wide range of people. The primary target audiences are city and state staff and programs. At the city level the data will assist in prioritizing restoration efforts and provide a means to measure changes to the aquatic ecosystems. The data will be forwarded on to state 303d listing for eligible streams. Other users will be citizen groups interested in monitoring and caring for their watersheds, adjacent jurisdictions that share watershed areas with the city, and by posterity.
Objectives	The main objective is to provide a measure of compliance to Federal Clean Water Act and Washington State's Water Quality Standards. Secondary objectives include prioritization of restoration efforts, ability to identify longterm trends, an assessment tool to check on the general health of city's surface waters, and detection of chronic point and non-point sources of pollution.
Authority	90.48 RCW and 173-201A WAC; City of Shoreline Chapter 20.60.120; Prohibits discharges of contaminants to surface and ground waters of the city
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Status Monitoring
Primary geographic focus	Select Watersheds
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Puget Sound
Frequency of sample collection	Continuous
Number of years data collected	Less Than 1
Data content	Biological - other; Freshwater Surface Water Quality; Instream Habitat; Land Use; Riparian Habitat; Waterway and Channel Modification
Other data	
Rate data quality/condition (0-18)	13
Rate design, scope, implementation (0-15)	9
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email; Hard Copy; Web Requested
Data contact person	Andy Loch - 206-546-1925 - aloch@ci.shoreline.wa.us
How often do you analyze, summarize, compile raw data?	As Needed; Monthly
Report/publish data?	Annually; Every 2 Yrs
Analyzed/summarized data made available?	Email; Web Requested
Rely on data from others?	No
Data readily available on maps?	No
Data exist as GIS coverage?	Unknown
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	City of Shoreline
Database	Meridian Park Restoration and Monitoring Project
Database acronym	
Contact	Andy Loch - 206-546-1925 - aloch@ci.shoreline.wa.us
Overview of the monitoring program	Meridian Park Wetland Restoration and Monitoring Project, 2001 Nature of the Problem -- In spring of 2001 neighbors expressed concerns for a wetland located in the of City of Shoreline. They were concerned with the levels of suspended and dissolved solids (TSS and NTUs), disappearance of frogs and salamanders, and an overall sense of degraded water quality conditions. Little institutional memory of historic extent and water quality exist for the wetland. Most of what is known comes from antidotal information. The wetland is located in a city park that was originally purchased with King County Forward Thrust bond in 1969. The park is approximately 3.2 acres with the wetland comprising approximately 1.5 acres of the park.
Audience/customer/user	The audience is composed of citizen volunteers, restoration engineers, various city staff, and elementary school children (4th through 6th).
Objectives	Goals 1. To develop and implement a monitoring regime to verify and quantify the extent and severity of contributors to the degraded biotic conditions. 2. Determine critical limiting factors to key indicator species, amphibians. 3. Use the results of monitoring to initiate a restoration plan. An integral component to restoration will be a comprehensive understanding of the hydrologic watershed regime and the extent to which pollutants are being absorbed, transported, and affecting amphibians within the wetland.
Authority	Unknown
Relates to watershed health and salmon recovery	Indirectly Supports
Program ongoing?	Yes
Type of monitoring	Status Monitoring; Effectiveness
Primary geographic focus	Select Reaches
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Puget Sound
Frequency of sample collection	Monthly
Number of years data collected	Less than 1
Data content	Freshwater Surface Water Quality; Wetlands; Biological - other
Other data	
Rate data quality/condition (0-18)	11
Rate design, scope, implementation (0-15)	9
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email; Web Requested
Data contact person	Andy Loch - 206-546-1925 - aloch@ci.shoreline.wa.us
How often do you analyze, summarize, compile raw data?	As Needed; Annually; Monthly
Report/publish data?	Annually
Analyzed/summarized data made available?	Email; Web Requested
Rely on data from others?	Yes
Data readily available on maps?	No
Data exist as GIS coverage?	No
Type of funding	Short Term

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	City of South Bend
Database	The Mill Creek Project
Database acronym	
Contact	Dale R. Seaman - 360-875-5571 - sbcity@techline.com
Overview of the monitoring program	Aside from a recently completed salmon habitat stream revitalization project (The Mill Creek Project) spearheaded by the Willapa Bay Fisheries Enhancement Group, at the present time we are not aware of any currently productive salmon habitat streams within the city limits.
Audience/customer/user	The Willapa Bay Fisheries Enhancement Group is expected to monitor change in the number of fish related to the Mill Creek Salmon Project.
Objectives	The primary function of the Mill Creek Project is to increase the number of chum salmon using the steam.
Authority	Unknown
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Operational; Status Monitoring; Effectiveness
Primary geographic focus	Administrative Boundaries; Select Reaches
Geospatially referenced?	Unknown
Salmon Recovery Region(s)	Washington Coast
Frequency of sample collection	Varies
Number of years data collected	Less Than 1
Data content	Salmonid Passage; Salmonid Productivity
Other data	
Rate data quality/condition (0-18)	3
Rate design, scope, implementation (0-15)	
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Hard Copy
Data contact person	Ron Craig - 360-875-6402
How often do you analyze, summarize, compile raw data?	As Needed
Report/publish data?	As Needed; As Resources Permit
Analyzed/summarized data made available?	Hard Copy
Rely on data from others?	No
Data readily available on maps?	Partial
Data exist as GIS coverage?	Unknown
Type of funding	Short Term

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	City of University Place
Database	Benthic Index of Biotic Integrity
Database acronym	BIBI
Contact	Kevin Briske - 253-460-5405 - Kbriske@ci.university-place.wa
Overview of the monitoring program	This test is used to identify the health of a stream through the amount of diversity in micro-organisms. Several test sites were used on both Leach Creek and Chambers Creek. Currently the program is ran by Pierce County Water Programs.
Audience/customer/user	Mostly local jurisdictions. City of UP has used the results as a form of best available science is developing its critical areas ordinance.
Objectives	Continued monitoring of the health of local streams.
Authority	Unknown
Relates to watershed health and salmon recovery	Indirectly Supports
Program ongoing?	Yes
Type of monitoring	Status Monitoring; Effectiveness
Primary geographic focus	Select WRIAs
Geospatially referenced?	No
Salmon Recovery Region(s)	Puget Sound
Frequency of sample collection	Alternating Yrs
Number of years data collected	1 to 5
Data content	Biological – Marine Mammals
Other data	
Rate data quality/condition (0-18)	16
Rate design, scope, implementation (0-15)	13
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email; Hard Copy
Data contact person	Bob Dieckman PC Water Programs - 253-798-4139
How often do you analyze, summarize, compile raw data?	Annually
Report/publish data?	Annually
Analyzed/summarized data made available?	Email; Hard Copy
Rely on data from others?	No
Data readily available on maps?	No
Data exist as GIS coverage?	No
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Nisqually Indian Tribe
Database	Nisqually Natural Resources Department
Database acronym	
Contact	Jeanette Dorner - 360-438-8687 - jdorner@nwifc.wa.gov
Overview of the monitoring program	The Nisqually Indian Tribe Natural resources program focuses on implementation of US v. Washington and associated court orders and management plans. These activities include data collection on salmon harvest, escapement, habitat variables, restoration projects, and the relationship of salmon survival to all of these elements. We have both professional staff and supervised volunteers that collect this data.
Audience/customer/user	We have a target audience of fisheries professionals as well as the general public within our watershed community. We present our findings at various gatherings of fisheries scientists throughout the region and have given presentations to other watershed groups. We also regularly present findings to the Nisqually River Council and its companion Citizen Advisory Committee which represent the general community. This results are also critical to self evaluation of the success of our program and our adaptive management process.
Objectives	The objective of our monitoring program is to conduct implementation, effectiveness, and validation monitoring to evaluate our progress in implementing the Nisqually Salmon Recovery Plan and to guide our decision making for future implementation. The results will be reported annually through a well-defined, rigorous adaptive management program.
Authority	Court; Other; RCW/WAC; Tribal; 2496; Treaty of Medicine Creek; Puget Sound Salmon Management Plan; Nisqually River Fall Chinook Recovery Plan
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Operational; Status Monitoring; Effectiveness
Primary geographic focus	Select Watersheds; Select WRIAs
Geospatially referenced?	Partially
Salmon Recovery Region(s)	Puget Sound
Frequency of sample collection	Varies
Number of years data collected	Varies
Data content	Biological - other; Freshwater Surface Water Quality; Ground Water Quality/Quantity; Harvest; Hatchery - disease, genetics; Hatchery - fish release, capture; Hydrology; Hydropower; Instream Habitat; Landscape Activities - restoration projects; Landscape/features inventory; Marine/Estuarine Water Quality; Nearshore; Riparian Habitat; Salmonid Passage; Salmonid Productivity
Other data	
Rate data quality/condition (0-18)	6
Rate design, scope, implementation (0-15)	8
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email
Data contact person	Jeanette Dorner - 360-438-8687 - jdorner@nwifc.wa.gov
How often do you analyze, summarize, compile raw data?	Annually; Daily; Monthly; Varies; Weekly
Report/publish data?	Annually
Analyzed/summarized data made available?	Email; Web Downloadable www.nisquallyriver.org
Rely on data from others?	Yes
Data readily available on maps?	Partial
Data exist as GIS coverage?	Yes
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Quileute Tribe
Database	Fish Distribution Survey in Bogachiel River System
Database acronym	Stream typing
Contact	Katie Krueger - 360-374-2265 - kkrueger@olympen.com
Overview of the monitoring program	We are following the forest practices rules on stream typing and taking the Bogachiel tributaries in sections. Did Lower Bogachiel last year and just got grant to do middle tributaries this year. Plan to do upper ones next year if funded.
Audience/customer/user	Quileute Natural Resources. Copies go to landowners and affected state and federal agencies, as well.
Objectives	Determine what streams have fish presence and if typing on record needs to be amended as to fish presence, stream width, etc. Goal is to have accurate information for forest practices. We are also noting habitat along the way, and fish passage blockages, if any.
Authority	WAC 222-16-031
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Coarse Inventory; Status Monitoring; Operational
Primary geographic focus	Select Reaches; Select Watersheds
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Washington Coast
Frequency of sample collection	Varies
Number of years data collected	1 to 5
Data content	Geologic; Instream Habitat; Landscape/features inventory; Other; Riparian Habitat; Salmonid Passage; Salmonid Productivity
Other data	Channel features that are natural as opposed to modifications
Rate data quality/condition (0-18)	12
Rate design, scope, implementation (0-15)	15
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Hard Copy
Data contact person	Kris Northcut - 360-374-6074 - knqnr@olympen.com
How often do you analyze, summarize, compile raw data?	As Needed; Annually; As Resources Permit
Report/publish data?	Annually
Analyzed/summarized data made available?	Hard Copy
Rely on data from others?	Yes
Data readily available on maps?	No
Data exist as GIS coverage?	Unknown
Type of funding	Short Term

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Stillaguamish Tribe of Indians
Database	Stillaguamish Tribal Water Quality Monitoring Program
Database acronym	
Contact	Don Klopfer - 360-435-2755 ext 28 - dklopfer@premier1.net
Overview of the monitoring program	The Stillaguamish Watershed encompasses about 650 square miles and is located in both Skagit and Snohomish Counties of Washington State. Stillaguamish Tribal Trust lands and U&A areas are located in this region and also include portions of marine waters in Island county. Contamination of surface and groundwater resources from point and non-point sources are an increasing threat to Tribal economic and cultural life. Objectives of this plan are to create a baseline of data that can be used in predicting trends in water quality conditions and monitoring for restoration effectiveness.
Audience/customer/user	Stillaguamish Tribal Managers; EPA; Ecology; Wash. Dept of Health; Sno. Co. Surface Water Management; CORPS; USFS; Dept of the Navy (Jim Creek); Local Citizens and others
Objectives	Water quality trend analysis
Authority	EPA Grant
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Coarse Inventory; Status Monitoring; Effectiveness
Primary geographic focus	Select WRIAs
Geospatially referenced?	Partially
Salmon Recovery Region(s)	Puget Sound
Frequency of sample collection	Monthly
Number of years data collected	More than 5
Data content	Freshwater Surface Water Quality; Marine/Estuarine Water Quality
Other data	
Rate data quality/condition (0-18)	14
Rate design, scope, implementation (0-15)	11
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email; Hard Copy
Data contact person	John Drotts - 360-435-2755 ext 26 - jdrotts@premier1.net
How often do you analyze, summarize, compile raw data?	As Needed; Annually; Monthly; Varies; Weekly
Report/publish data?	As Needed; Annually
Analyzed/summarized data made available?	Email; Hard Copy
Rely on data from others?	No
Data readily available on maps?	Partial
Data exist as GIS coverage?	Yes
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Adams Conservation District
Database	Cow Creek Monitoring Program
Database acronym	
Contact	Gary DeVore - 509-659-1553 - adamcd@ritzcom.net
Overview of the monitoring program	The Cow Creek Watershed consists of an area of approximately 427000 acres consisting of scab rock-range land-dryland farm within Adams-Lincoln and Spokane County areas. This creek is one of 13 tributaries contributing waters into the Palouse River basin watershed and currently is identified with numerous 303d contamination issues-The Cow Creek monitoring program is specifically monitoring those waters which flow from Sprague Lake traveling through several settling ponds to enter the Palouse River 38 miles downstream.
Audience/customer/user	Department of Ecology, Environmental Protection Agency, local producers, Adams and Lincoln County commissioners and conservation districts, cattlemen, Area Farmers, local political representatives associated with water quality aspects of the area, Department of Fish & Game and USDA Natural Resource Conservation Service, Army Corp Of Engineers, Department of Natural Resources, Big Bend Resource Conservation and Development, and local environmental and recreational users all have an interest in the results of this project.
Objectives	To identify specific water quality aspects of the drainage and determine what objectives can be enhanced through information, education and adequate funding support. Off site watering sources, fencing projects that provide support for controlled grazing and riparian enhancement objectives while improving fish habitat where possible. Salmon do not exist within this stream however the Palouse River contributes a significant volume of highly sedimented water contributions into the Snake River, thus potentially impacting downstream water quality issues.
Authority	Other
Relates to watershed health and salmon recovery	Indirectly Supports
Program ongoing?	Yes
Type of monitoring	Coarse Inventory
Primary geographic focus	Select Reaches; Select Watersheds; Select WRIAs
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Non Salmon Recovery Areas
Frequency of sample collection	Monthly
Number of years data collected	1 to 5
Data content	Freshwater Surface Water Quality; Hydrology; Landscape Activities - restoration projects; Land Use; Other Upland; Riparian Habitat; Upland Habitat; Wetlands
Other data	
Rate data quality/condition (0-18)	12
Rate design, scope, implementation (0-15)	10
Charge money for the data?	Sometimes
Data sensitive or proprietary?	No
Raw data made available?	Email; Hard Copy
Data contact person	Gary DeVore - 509-659-1553 - adamcd@ritzcom.net
How often do you analyze, summarize, compile raw data?	As Needed; Annually; As Resources Permit; Monthly
Report/publish data?	As Needed; As Resources Permit; Varies
Analyzed/summarized data made available?	Email
Rely on data from others?	No
Data readily available on maps?	Partial
Data exist as GIS coverage?	No
Type of funding	Short Term

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Chelan Conservation District
Database	Water Quality
Database acronym	
Contact	Michael J. Rickel - 509-664-0265 - mike-rickel@wa.nacdnet.org
Overview of the monitoring program	Monitor the water quality of WRIA 45 to determine current conditions, track trends and provide a reliable set of data for comparison to other data sets.
Audience/customer/user	Public agencies, private groups and the general public.
Objectives	
Authority	RCW/WAC 89.08
Relates to watershed health and salmon recovery	Indirectly Supports
Program ongoing?	No
Type of monitoring	Status Monitoring; Effectiveness
Primary geographic focus	Select WRIAs
Geospatially referenced?	No
Salmon Recovery Region(s)	Upper Columbia
Frequency of sample collection	Monthly
Number of years data collected	Varies
Data content	Freshwater Surface Water Quality
Other data	
Rate data quality/condition (0-18)	16
Rate design, scope, implementation (0-15)	14
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email; Hard Copy
Data contact person	Michael J. Rickel - 509-664-0265 - mike-rickel@wa.nacdnet.org
How often do you analyze, summarize, compile raw data?	Monthly
Report/publish data?	As Needed; Varies
Analyzed/summarized data made available?	Email
Rely on data from others?	No
Data readily available on maps?	No
Data exist as GIS coverage?	No
Type of funding	Short Term

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Cowlitz Conservation District
Database	Arkansas Creek Watershed Plan
Database acronym	
Contact	Lynn Simpson - 360-425-1880 - lynn-simpson@wa.nacdnet.org
Overview of the monitoring program	Monitoring was conducted to gather information, provide background information to the Arkansas Creek Watershed Landowner Advisory Committee, which recommended management activities to the community.
Audience/customer/user	The landowners and land occupiers within the Arkansas Creek watershed.
Objectives	To provide a watershed characterization and an inventory of the following: surface water quality, septic system function, agricultural activities, forest-land activities, roads, streams, and mass failures. An implementation strategy was developed from the inventory information.
Authority	Unknown
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	No
Type of monitoring	Coarse Inventory; Status Monitoring; Effectiveness
Primary geographic focus	Select Watersheds
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Lower Columbia
Frequency of sample collection	Varies
Number of years data collected	Varies
Data content	Biological - other; Climate and Ocean Conditions; Freshwater Surface Water Quality; Geologic; Harvest; Hydrology; Instream Habitat; Landscape/features inventory; Land Use; Riparian Habitat; Salmonid Productivity; Upland Habitat
Other data	
Rate data quality/condition (0-18)	
Rate design, scope, implementation (0-15)	
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Not Available
Data contact person	Lynn Simpson - 360-425-1880 - lynn-simpson@wa.nacdnet.org
How often do you analyze, summarize, compile raw data?	As Needed; As Resources Permit
Report/publish data?	As Needed; As Resources Permit
Analyzed/summarized data made available?	Email; Hard Copy
Rely on data from others?	No
Data readily available on maps?	Partial
Data exist as GIS coverage?	No
Type of funding	Short Term

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Cowlitz Conservation District
Database	Silver Lake Watershed Plan
Database acronym	
Contact	Lynn Simpson - 360-425-1880 - lynn-simpson@wa.nacdn.net.org
Overview of the monitoring program	Monitoring was conducted to gather information, provide background information, to the Silver Lake Watershed Landowner Advisory Committee, which recommended management activities to the community.
Audience/customer/user	The landowners and land occupiers within the Silver Lake watershed.
Objectives	To provide a watershed characterization and an inventory of the following: surface water quality, septic system function, agricultural activities, forest-land activities, roads, streams, and soil sampling. An implementation strategy was developed from the inventory information.
Authority	Unknown
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	No
Type of monitoring	Coarse Inventory; Status Monitoring; Effectiveness
Primary geographic focus	Select Watersheds
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Lower Columbia
Frequency of sample collection	Varies
Number of years data collected	Varies
Data content	Biological - other; Climate and Ocean Conditions; Freshwater Surface Water Quality; Geologic; Harvest; Hydrology; Instream Habitat; Landscape/features inventory; Land Use; Riparian Habitat; Salmonid Productivity; Upland Habitat
Other data	
Rate data quality/condition (0-18)	
Rate design, scope, implementation (0-15)	
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Not Available
Data contact person	Lynn Simpson - 360-425-1880 - lynn-simpson@wa.nacdn.net.org
How often do you analyze, summarize, compile raw data?	As Needed; As Resources Permit
Report/publish data?	As Needed; As Resources Permit
Analyzed/summarized data made available?	Email; Hard Copy
Rely on data from others?	No
Data readily available on maps?	Partial
Data exist as GIS coverage?	No
Type of funding	Short Term

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Cowlitz/Wahkiakum Conservation Districts
Database	Culvert inventories in Cowlitz and Wahkiakum Counties
Database acronym	None
Contact	Lynn Simpson - 360-425-1880 - lynn-simpson@wa.nacdnet.org
Overview of the monitoring program	Culvert surveys were conducted on county and some private culverts to assess fish passage.
Audience/customer/user	The landowners and land occupiers in the conservation districts. This project was funded by the WSDOT.
Objectives	To assess whether culverts were fish passage barriers according to the WDFW protocol for county culverts and any private landowners who were willing to allow the survey on their property.
Authority	Unknown, Clean Water Act
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	No
Type of monitoring	Operational
Primary geographic focus	Select watersheds
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Lower Columbia
Frequency of sample collection	Varies
Number of years data collected	Varies
Data content	Salmonid passage
Other data	None
Rate data quality/condition (0-18)	14
Rate design, scope, implementation (0-15)	10
Charge money for the data?	No
Data sensitive or proprietary?	Yes
Raw data made available?	Not Available
Data contact person	Lynn Simpson - 360-425-1880 - lynn-simpson@wa.nacdnet.org
How often do you analyze, summarize, compile raw data?	As needed; as resources permit
Report/publish data?	As needed; as resources permit
Analyzed/summarized data made available?	Not Available
Rely on data from others?	No
Data readily available on maps?	Yes
Data exist as GIS coverage?	No
Type of funding	Short term

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Cowlitz/Wahkiakum Conservation Districts
Database	Grays River Watershed Road Survey
Database acronym	None
Contact	Lynn Simpson - 360-425-1880 - lynn-simpson@wa.nacdnet.org
Overview of the monitoring program	Road surveys of the Grays River Watershed in Wahkiakum County were conducted to provide road surface, cutslope, and fillslope conditions. Culverts were also inventoried. Most of the watershed was covered, information was shared with landowners and corrective projects implemented.
Audience/customer/user	The landowners and land occupiers in the conservation districts.
Objectives	to provide road surface, cutslope, and fillslope conditions in the Grays River watershed. To inventory culverts. To implement corrective projects.
Authority	Unknown, Clean Water Act
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	No
Type of monitoring	Coarse inventory, operational
Primary geographic focus	Select watersheds
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Lower Columbia
Frequency of sample collection	Seasonally
Number of years data collected	Varies
Data content	Salmonid passage; upland habitat
Other data	Road surface, cutslope, fillslope, and culvert data
Rate data quality/condition (0-18)	14
Rate design, scope, implementation (0-15)	12
Charge money for the data?	No
Data sensitive or proprietary?	Yes
Raw data made available?	Not Available
Data contact person	Lynn Simpson - 360-425-1880 - lynn-simpson@wa.nacdnet.org
How often do you analyze, summarize, compile raw data?	As needed; as resources permit
Report/publish data?	As needed; as resources permit
Analyzed/summarized data made available?	Email; URL Not Available
Rely on data from others?	No
Data readily available on maps?	Partial
Data exist as GIS coverage?	Yes
Type of funding	Short term

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Cowlitz/Wahkiakum Conservation Districts
Database	Stream Habitat Surveys
Database acronym	None
Contact	Lynn Simpson - 360-425-1880 - lynn-simpson@wa.nacdn.net
Overview of the monitoring program	To provide the districts and landowners with physical data about the streams and riparian zones to assess current watershed conditions. This data will be used in carrying out the districts' community watershed planning efforts.
Audience/customer/user	The landowners and land occupiers in the conservation districts.
Objectives	To physically measure stream and riparian habitat in streams with a channel greater than a 2-foot ordinary high water and with a gradient of less than 16 percent (over a length of 200 feet). Streams surveyed have not been surveyed by other agencies and have non-industrial or non-governmental ownership.
Authority	Unknown, Clean Water Act
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Coarse Inventory
Primary geographic focus	Select watersheds
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Lower Columbia
Frequency of sample collection	Varies
Number of years data collected	Less than one
Data content	Salmonid Passage; Riparian Habitat; Instream Habitat; Other
Other data	Stream habitat: substrate composition, stream cross-sectional measurements, bank erosion, habitat units (riffle, pool, etc.), large woody debris, culverts, mass wasting
Rate data quality/condition (0-18)	12
Rate design, scope, implementation (0-15)	11
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email; Hard Copy; Not Available on WEB
Data contact person	Lynn Simpson - 360-425-1880 - lynn-simpson@wa.nacdn.net
How often do you analyze, summarize, compile raw data?	As Needed; As Resources Permit; Varies
Report/publish data?	Email; URL Not Available
Analyzed/summarized data made available?	Some
Rely on data from others?	No
Data readily available on maps?	Partial
Data exist as GIS coverage?	No
Type of funding	Short term

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Cowlitz/Wahkiakum Conservation Districts
Database	Stream temperature and dissolved oxygen monitoring
Database acronym	None
Contact	Lynn Simpson Phone 360-425-1880 Email lynn-simpson@wa.nacdnet.org
Overview of the monitoring program	To measure stream temperatures and dissolved oxygen in Cowlitz and Wahkiakum county streams to report to landowners so we can assist them in making sound resource management decisions in stream and riparian areas. Data also used by Ecology to determine if state standards are exceeded and if TMDLs are necessary.
Audience/customer/user	The landowners and land occupiers in the conservation districts.
Objectives	To measure stream temperatures and dissolved oxygen in Cowlitz and Wahkiakum counties.
Authority	Unknown, Clean Water Act
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Status Monitoring
Primary geographic focus	Select watersheds
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Lower Columbia
Frequency of sample collection	Seasonally
Number of years data collected	Varies
Data content	Freshwater surface water quality
Other data	None
Rate data quality/condition (0-18)	18
Rate design, scope, implementation (0-15)	15
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email; Hard Copy; Not Available on WEB
Data contact person	Lynn Simpson - 360-425-1880 - lynn-simpson@wa.nacdnet.org
How often do you analyze, summarize, compile raw data?	Annually
Report/publish data?	Annually
Analyzed/summarized data made available?	Email; URL Not Available
Rely on data from others?	No
Data readily available on maps?	No
Data exist as GIS coverage?	No
Type of funding	Short term

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Cowlitz/Wahkiakum Conservation Districts
Database	Watershed Characterization Portfolios for Cowlitz and Wahkiakum Counties
Database acronym	None
Contact	Lynn Simpson - 360-425-1880 - lynn-simpson@wa.nacdnet.org
Overview of the monitoring program	To provide the districts and landowners with watershed characteristics for each watershed in the districts. Each watershed is approximately WAU-sized. This data will be used in carrying out the districts' community watershed planning efforts.
Audience/customer/user	The landowners and land occupiers in the conservation districts.
Objectives	To calculate and summarize watershed characteristics based on stream types, soils, climate, geology, land use, ownership, and topography.
Authority	Unknown, Clean Water Act
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Coarse Inventory
Primary geographic focus	Select watersheds
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Lower Columbia
Frequency of sample collection	Varies
Number of years data collected	Varies
Data content	Landscape features inventory
Other data	None
Rate data quality/condition (0-18)	11
Rate design, scope, implementation (0-15)	15
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email; Hard Copy; Not Available on WEB
Data contact person	Lynn Simpson - 360-425-1880 - lynn-simpson@wa.nacdnet.org
How often do you analyze, summarize, compile raw data?	As Needed; As Resources Permit; Varies
Report/publish data?	Email; URL Not Available
Analyzed/summarized data made available?	Some
Rely on data from others?	No
Data readily available on maps?	Yes
Data exist as GIS coverage?	No
Type of funding	Short term

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Foster Creek Conservation District
Database	Watershed Analysis
Database acronym	
Contact	Tim Behne - 509-632-5778 - tim-behne@wa.nacdnet.org
Overview of the monitoring program	Our monitoring program has been initiated under the Watershed Act 2514. We hired a consulting firm, Pacific Groundwater Group, to do our watershed analysis in WRIA's 44/50. We are looking at water quantity, water quality and habitat under this grant. We have established monitoring stations on Foster, Rock Island, Douglas, Pine Canyon and Sand Canyon Creeks. Monitoring activities are being assumed by FCCD personnel, Tim Behne.
Audience/customer/user	For now the information is for the Planning Unit and the Conservation District. It is our intention to make this information available to anyone. The information is on GIS but still with the consultants. I have the monitoring information available in conventional forms now.
Objectives	The objective of our monitoring for the last year has been to establish baseline information on our watersheds, 44 & 50, for quantity, quality, habitat and instream flows. We will use this data for Phase III in making our plan for our two WRIA's and to proceed with our instream flow assessments. The monitoring will continue under this and other grants in the future and we are establishing a GIS system as a part of our watershed program.
Authority	RCW/WAC 2514
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Coarse Inventory
Primary geographic focus	Select WRIAs
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Upper Columbia
Frequency of sample collection	Varies
Number of years data collected	Less Than 1
Data content	Biological - other; Freshwater Surface Water Quality; Hydrology; Instream Habitat; Riparian Habitat
Other data	
Rate data quality/condition (0-18)	15
Rate design, scope, implementation (0-15)	12
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email; Not Available
Data contact person	Tim Behne - 509-632-5778 - tim-behne@wa.nacdnet.org
How often do you analyze, summarize, compile raw data?	As Needed; Varies
Report/publish data?	Never
Analyzed/summarized data made available?	Not Available
Rely on data from others?	No
Data readily available on maps?	No
Data exist as GIS coverage?	Yes
Type of funding	Short Term

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Jefferson Conservation District
Database	Water Quality Screening
Database acronym	
Contact	Glenn Gately - 360-385-4105 - glenn-gately@wa.nacdn.net
Overview of the monitoring program	We monitor several water quality parameters as well as relative juvenile salmon abundance in order to evaluate salmon habitat restoration projects and other related programs (e.g., Dairy Waste Management Plans and CREP) as well as to track long-term trends at established monitoring stations in eastern Jefferson County streams.
Audience/customer/user	Specifically, our audience are the local landowners, dairy farmers and beef raisers, volunteer organizations, tribes, and agencies involved with salmon restoration in eastern Jefferson County. However, we make our data available to anyone whom it will benefit and who requests it. All our reports are sent to the state Conservation Commission.
Objectives	To evaluate salmon habitat restoration projects and other related programs as well as to track long-term trends at established monitoring stations.
Authority	Internal
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Status Monitoring; Effectiveness
Primary geographic focus	Administrative Boundaries; Select Reaches; Select Watersheds
Geospatially referenced?	No
Salmon Recovery Region(s)	Puget Sound
Frequency of sample collection	Varies
Number of years data collected	More than 5
Data content	Freshwater Surface Water Quality; Hydrology; Landscape Activities - restoration projects; Salmonid Productivity
Other data	
Rate data quality/condition (0-18)	13
Rate design, scope, implementation (0-15)	10
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email; Hard Copy
Data contact person	Glenn Gately - 360-385-4105 - glenn-gately@wa.nacdn.net
How often do you analyze, summarize, compile raw data?	Every 2 Yrs
Report/publish data?	Every 2 Yrs
Analyzed/summarized data made available?	Hard Copy
Rely on data from others?	No
Data readily available on maps?	No
Data exist as GIS coverage?	No
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	King County Conservation District
Database	Stream and Wetland Buffer Enhancement Program
Database acronym	
Contact	Debbie Meisinger - 206-764-3410 x119 - debbie.meisinger@kingcd.org
Overview of the monitoring program	Monitoring program consists of vegetation monitoring on stream and wetland buffers installed by the King Conservation District. Includes both plant species installed and existing vegetation on restoration sites.
Audience/customer/user	Washington Conservation Commission Water Quality Grant Program and JLARC Reports; owners of property on which projects occur, including cities, county agencies and private landowners.
Objectives	To document survival, mortality, and cover of installed vegetation.
Authority	RCW/WAC
Relates to watershed health and salmon recovery	Indirectly Supports
Program ongoing?	Yes
Type of monitoring	Coarse Inventory
Primary geographic focus	Administrative Boundaries; Select Reaches
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Puget Sound
Frequency of sample collection	Varies
Number of years data collected	Varies
Data content	Exotic Species; Landscape Activities - restoration projects; Landscape/features inventory; Other Uplands; Riparian Habitat; Wetlands
Other data	
Rate data quality/condition (0-18)	
Rate design, scope, implementation (0-15)	2
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Hard Copy
Data contact person	Brandy Reed - 206-764-3410 x120 – brandy.reed@kingcd.org
How often do you analyze, summarize, compile raw data?	Varies
Report/publish data?	Never
Analyzed/summarized data made available?	Hard Copy; Not Available
Rely on data from others?	No
Data readily available on maps?	No
Data exist as GIS coverage?	No
Type of funding	Short Term

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	North Yakima Conservation District
Database	Moxee Drain Irrigated Agriculture BMP Implementation Project, Monitoring Plan
Database acronym	Moxee HU project
Contact	Michael Tobin - 509-454-5736 - mike-tobin@wa.nacdnet.org
Overview of the monitoring program	The Monitoring Program was put together to document the improvements to W/Q of the Moxee Drain entering the Yakima River as a result of BMP implementation throughout the Moxee Watershed. The Watershed is 97,000 acres, of which 19,000 is irrigated, of that 7500 ac. are furrow irrigated hops. The BMP's implemented were drip irrigation and assoc. management practices. These BMP's eliminate sediment and associated Ag. chemicals from entering the Yakima River.
Audience/customer/user	There is no specific audience. PREVIOUS RESEARCH has told us that the BMP's implemented would give us the desired results. The real audience was the funding agencies. NYCD has used this monitoring data to secure more cost-share and technical assistance funding from these agencies to treat the watershed. Data has been shared at other venues such as displays, and growere meetings. Bottom line is that implementation is where it's at, not monitoring.
Objectives	The objectives of the Monitoring Program are to track water quality and treat water quality changes related to sediment and sediment loading. This study rational was used because of the following: 1) sediment serves as one of the most significant indicators of W/Q; 2) furrow irrigation is a major cause of W/Q degradation within the H.U.; 3) cost effectiveness of sampling; 4) previously collected data includes sediment related parameters.
Authority	EPA Project # WA-93-02-319, and subsequent grant fundings
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Status Monitoring; Effectiveness
Primary geographic focus	Salmon Recovery Regions, ESUs; Select Reaches; Select Watersheds; Select WRIAs
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Middle Columbia
Frequency of sample collection	Weekly
Number of years data collected	More than 5
Data content	Freshwater Surface Water Quality; Hydrology
Other data	
Rate data quality/condition (0-18)	16
Rate design, scope, implementation (0-15)	12
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email; Web Requested
Data contact person	Michael Tobin - 509-454-5736 - mike-tobin@wa.nacdnet.org
How often do you analyze, summarize, compile raw data?	Annually
Report/publish data?	As Needed; As Resources Permit
Analyzed/summarized data made available?	Not Available
Rely on data from others?	No
Data readily available on maps?	No
Data exist as GIS coverage?	No
Type of funding	Short Term

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	North Yakima Conservation District
Database	North Yakima Conservation District Water Quality Monitoring Program
Database acronym	NYCD W/Q Monitoring Program
Contact	Michael Tobin - 509-454-5736 ext 122 - mike-tobin@wa.nacdnet.org
Overview of the monitoring program	The NYCD monitoring plan is designed to collect baseline information of W/Q of the tributaries within the district's jurisdiction. The data collected will display W/Q trends and baseline data within specific sections of streams. As funds are available NYCD will monitor for flow, temperature, turbidity, pH, dissolved oxygen, and conductivity. All of which are primary W/Q factors related to fish needs. With this data NYCD can focus W/Q program efforts and document improvements.
Audience/customer/user	NYCD will be the primary user of this data. However, the data is currently being funded by DOE and will become part of their data base. NYCD has let other entities know that the data exists, and has and will continue to share it with any entity that requests it.
Objectives	NYCD is implementing this program to collect data related to six water quality parameters, they are; temperature, turbidity, pH, dissolved oxygen, conductivity and flow. The plan has identified 25 sites throughout the Ahtanum Cr., Wide Hollow Cr., Cowiche Cr., and Wenas Cr. systems.
Authority	Other
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Coarse Inventory; Status Monitoring
Primary geographic focus	Select Reaches; Select WRIAs
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Middle Columbia
Frequency of sample collection	Continuous
Number of years data collected	1 to 5
Data content	Other
Other data	Temperature (hourly between spring freshet and late fall, bi-monthly during the winter), turbidity, pH, dissolved oxygen, and conductivity (bi-monthly), and flow is estimated at this time due to funding limitations.
Rate data quality/condition (0-18)	15
Rate design, scope, implementation (0-15)	14
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email; Hard Copy
Data contact person	Michael Tobin - 509-454-5736 ext 122 - mike-tobin@wa.nacdnet.org
How often do you analyze, summarize, compile raw data?	Annually
Report/publish data?	Annually
Analyzed/summarized data made available?	Email; Hard Copy
Rely on data from others?	No
Data readily available on maps?	No
Data exist as GIS coverage?	No
Type of funding	Short Term

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Okanogan Conservation District
Database	Okanogan Watershed Water Quality Monitoring
Database acronym	OWQM
Contact	Craig T. Nelson - 509-422-0855 - craig-nelson@wa.nacdnet.org
Overview of the monitoring program	The Okanogan Watershed Water Quality Monitoring program is intended to provide reliable, defensible, and accurate information on the quality of significant tributary streams of the Okanogan River in Washington State. This program takes place entirely within the confines of WRIA 49 and targets getting the information that was not available during the development of the Okanogan Watershed Water Quality Management Plan (May, 2000).
Audience/customer/user	This information has three audiences listed in prioritized order: 1) the Okanogan Watershed Implementation Committee; 2) the general public; 3) the Washington Department of Ecology.
Objectives	To obtain baseline water quality information on the tributaries of the Okanogan River Watershed for the determination of water quality problems and eventual improvements with the implementation of the Okanogan Watershed Water Quality Management Plan.
Authority	Okanogan Watershed Water Quality Management Plan, May 2000. Okanogan Conservation District. Okanogan, WA.
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Status Monitoring
Primary geographic focus	Select Reaches; Select Watersheds; Select WRIAs
Geospatially referenced?	Partially
Salmon Recovery Region(s)	Upper Columbia
Frequency of sample collection	Weekly
Number of years data collected	1 to 5
Data content	Freshwater Surface Water Quality; Hydrology
Other data	
Rate data quality/condition (0-18)	18
Rate design, scope, implementation (0-15)	12
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email; Hard Copy
Data contact person	Craig T. Nelson - 509-422-0855 - craig-nelson@wa.nacdnet.org
How often do you analyze, summarize, compile raw data?	Annually
Report/publish data?	Annually
Analyzed/summarized data made available?	Email; Hard Copy
Rely on data from others?	No
Data readily available on maps?	No
Data exist as GIS coverage?	No
Type of funding	Short Term

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Pomeroy Conservation District
Database	Alpowa Creek, Deadman Creek, Pataha Creek Water Quality Reports
Database acronym	
Contact	Duane Bartels - 509-843-1998 - duanebar@pomeroy-wa.com
Overview of the monitoring program	The objective of this study is to evaluate the water quality in the Alpowa, Deadman, and Pataha Creek watersheds located in Garfield County. This effort is to determine the effectiveness of agricultural conservation practices in southeast Washington's Pomeroy Conservation District. Data presented was collected between March 1999 and July 2001, and then analyzed by Washington State University's Department of Biological Systems and by the Center for Environmental Education.
Audience/customer/user	Pomeroy Conservation District uses the data for the funding process through BPA, SRFB, Conservation Commission, DOE, and other funding sources. The district will use this data to show the effectiveness of upland conservation and riparian restoration practice implementation in reducing sedimentation and nutrients in these three salmon bearing streams. It will also use this data to justify further funding to implement more cost effective and erosion reduction practices such as no-till and direct seeding.
Objectives	Show the effect in reduced sedimentation, fecal coliforms, and other nutrients in our streams by implementing upland and riparian water quality improvement practices.
Authority	Internal
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Status Monitoring; Effectiveness
Primary geographic focus	Salmon Recovery Regions, ESUs; Select Reaches; Select Watersheds; Select WRIAs
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Snake River
Frequency of sample collection	Monthly
Number of years data collected	1 to 5
Data content	Hydrology
Other data	
Rate data quality/condition (0-18)	13
Rate design, scope, implementation (0-15)	11
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email; Hard Copy
Data contact person	Duane Bartels - 509-843-1998 - duanebar@pomeroy-wa.com
How often do you analyze, summarize, compile raw data?	Monthly
Report/publish data?	As Needed
Analyzed/summarized data made available?	Email; Hard Copy
Rely on data from others?	No
Data readily available on maps?	Partial
Data exist as GIS coverage?	No
Type of funding	Short Term

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	San Juan County Conservation District
Database	San Juan County Surface Water Quality Monitoring Program
Database acronym	SJWQMP
Contact	William S. Hamilton - 360-378-6621 - bhamilton@rockisland.com
Overview of the monitoring program	This is new project intended to conduct ambient surface water quality monitoring in key watersheds throughout San Juan County. THE PROJECT IS JUST NOW BEING IMPLEMENTED, SO NO MONITORING HAS YET BEEN CONDUCTED AND, THEREFORE, NO RESULTS ARE AVAILABLE. References to frequency of monitoring are PLANNED frequency. Concerning question 11 below: monitoring WILL BE ongoing. Questions 20 & 21 reference ANTICIPATED results.
Audience/customer/user	San Juan County Health Department, San Juan County Conservation District, and residents of San Juan County generally.
Objectives	Conduct ambient water quality monitoring to identify water quality baselines and to identify trends that may suggest developing problems or threats to water quality. The program has an early warning focus.
Authority	Other
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	
Type of monitoring	Status Monitoring
Primary geographic focus	Select Watersheds
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Puget Sound
Frequency of sample collection	Monthly
Number of years data collected	Less Than 1
Data content	Freshwater Surface Water Quality; Hydrology
Other data	
Rate data quality/condition (0-18)	13
Rate design, scope, implementation (0-15)	14
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Hard Copy; Web Viewable – Planned for future implementation
Data contact person	Lori Larking - 360-378-6621 - llarkin@rockisland.com
How often do you analyze, summarize, compile raw data?	Monthly
Report/publish data?	Annually
Analyzed/summarized data made available?	Email; Web Viewable - Will be available on the web once monitoring begins
Rely on data from others?	No
Data readily available on maps?	No
Data exist as GIS coverage?	No
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Snohomish Conservation District
Database	Riley Slough Water Quality Monitoring Project
Database acronym	RS WQMP
Contact	Jamie Bails - 425-335-5634 x106 - jamie@snohomishcd.org
Overview of the monitoring program	Our monitoring project was begun at Riley Slough to collect baseline data on the general hydrology of the slough and the surrounding watershed. Three years of data collection have shown that water levels in the slough regularly vary through the year, the abundance of reed canary grass has likely contributed to low dissolved oxygen and high pH at times. Temperature is also at risk throughout the slough. Our eight stations are located at 1/2 mile intervals along the six-mile length of the slough.
Audience/customer/user	The audience of this project are the landowners and SCD field technicians. The results will be submitted to DOE for their regional database. Our hope is that the data can prove Riley Slough is at risk and encourage additional landowners to participate in the project. SCD uses the data to understand and adapt to changes in the slough. At this early stage, no significant changes have occurred.
Objectives	Specific objectives include collecting reliable data that will help us determine the health of Riley Slough. Water quality parameters include monthly collection of temperature, dissolved oxygen, pH, and turbidity. Meters are used to take data and is recorded on data sheet in the field and in a database. Fecal samples are collected 2-3 times a year after storm events.
Authority	Grant requirement
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Status Monitoring
Primary geographic focus	Select Reaches
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Puget Sound
Frequency of sample collection	Monthly
Number of years data collected	1 to 5
Data content	Freshwater Surface Water Quality; Ground Water Quality/Quantity; Hydrology; Instream Habitat; Riparian Habitat
Other data	
Rate data quality/condition (0-18)	12
Rate design, scope, implementation (0-15)	12
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Hard Copy
Data contact person	Jamie Bails - 425-335-5634 x106 - jamie@snohomishcd.org
How often do you analyze, summarize, compile raw data?	Annually; Monthly
Report/publish data?	Annually
Analyzed/summarized data made available?	Hard Copy
Rely on data from others?	No
Data readily available on maps?	No
Data exist as GIS coverage?	No
Type of funding	Short Term

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Ducks Unlimited, Inc.
Database	Pacific Northwest Fisheries Evaluations
Database acronym	
Contact	Chuck Lobdell - 360-885-2011 - clobdell@ducks.org
Overview of the monitoring program	Monitor juvenile salmonid use of floodplain wetlands in the Lower Columbia River, Yakima River Valley, Chehalis River Valley, Willapa Bay, and Lower Willamette River to evaluate seasonal use, timing and patterns of ingress/egress, evaluate passage, residence time, growth rates and survival. Focus is on wetland restoration projects and their effects and benefits to juvenile salmonids.
Audience/customer/user	State and Federal biologists and regulators that review restoration projects, partners and funding agencies interested in salmon recovery efforts, and academics.
Objectives	1) Document presence/absence of juvenile salmonids in floodplain wetlands; 2) Identify timing and patterns of ingress/egress of juvenile salmonids in floodplain wetlands; 3) Evaluate passage of juvenile salmonids through fish-friendly structures used in active restoration; 4) Evaluate residence times, growth rates and survival of juvenile salmonids in wetlands; 5) Evaluate patterns of juvenile salmonid use of floodplain wetlands in a variety of locations.
Authority	ESA; state regulations; professional interest
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Coarse Inventory; Effectiveness
Primary geographic focus	Ecoregions or Marine Waters; Multi-State/International; Select Reaches
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Lower Columbia; Middle Columbia; Washington Coast
Frequency of sample collection	Daily
Number of years data collected	1 to 5
Data content	Hydropower; Landscape Activities - restoration projects; Salmonid Passage; Salmonid Productivity; Wetlands
Other data	
Rate data quality/condition (0-18)	16
Rate design, scope, implementation (0-15)	13
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Not Available
Data contact person	Cyndi Baker - 360-885-2011 - cbaker2@ducks.org
How often do you analyze, summarize, compile raw data?	Annually
Report/publish data?	Annually
Analyzed/summarized data made available?	Hard Copy
Rely on data from others?	Yes
Data readily available on maps?	No
Data exist as GIS coverage?	No
Type of funding	Short Term

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Fish Passage Center
Database	Comparative Survival Study
Database acronym	CSS
Contact	Henry Franzoni - 503-230-4290 - hfranzoni@fpc.org
Overview of the monitoring program	The Comparative Survival Study (CSS) was initiated in 1996 as a multi-year program of the fishery agencies and tribes to estimate survival rates over different life stages for spring and summer chinook (hereafter, chinook) produced in major hatcheries in the Snake River basin and from selected hatcheries in the lower Columbia River. Much of the information evaluated in the CSS is derived from fish tagged with Passive Integrated Transponder (PIT) tags. A comparison of survival rates of chinook marked in two different regions (which differ in the number of dams chinook have to migrate through) provides insight into the effects of the Snake/Columbia hydroelectric system (hydrosystem). The CSS also compares the smolt-to-adult survival rates (SARs) for Snake River chinook that were transported versus those that migrated in-river to below Bonneville Dam. Additional comparisons can be made within in-river experiences as well comparison between the different collector projects from which smolts are transported. CSS also compares these survival rates for wild Snake River spring and summer chinook. These comparisons generate information regarding the relative effects of the current management actions used to recover this listed species.
Audience/customer/user	Scientists and managers have recently emphasized the importance of delayed hydrosystem mortality to long-term management decisions. Delayed hydrosystem mortality may be related to the smolts' experience in the Federal Columbia River Power System, and could occur for both smolts that migrate in-river and smolts that are transported. The CSS PIT tag information on in-river survival rates and smolt-to-adult survival rates (SARs) of transported and in-river fish are relevant to estimation of 'D', which partially describes delayed hydrosystem mortality. 'D', or differential delayed mortality, is the differential survival rate of transported fish relative to fish that migrate in-river, as measured from below Bonneville Dam to adults returning to Lower Granite Dam. A 'D' equal to one indicates that there is no difference in survival rate after hydrosystem passage, while a 'D' less than one indicates that transported smolts die at a greater rate after release, than smolts that have migrated through the hydrosystem. While the relative survival rates of transported and in-river migrants are important, the SARs must be also be sufficient to allow the salmon to persist and recover (Mundy et al. 1994). Decreased SARs could result from delayed hydrosystem mortality for either transported or in-river migrants, or both.
Objectives	Major objectives of CSS include: (1) development of a long-term index of transport SAR to in-river SAR for Snake River hatchery spring and summer chinook smolts measured at Lower Granite Dam; (2) develop a long-term index of survival rates from release of smolts at Snake River hatcheries to return of adults to the hatcheries; (3) compute and compare the overall SARs for selected upriver and downriver spring and summer chinook hatcheries; (4) begin a time series of SARs for use in hypothesis testing and in the regional long-term monitoring and evaluation program; (5) evaluate growth patterns of transported and in-river migrating smolts, and of upriver and downriver stocks. Primary CSS focus in this report for the 1997-1999 migration years included hatchery chinook tasks for objectives 1, 4 and 5.
Authority	Comparative Survival Study Oversight Committee; Columbia Basin Fish & Wildlife Agencies and Columbia Basin Tribes
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Status Monitoring

Primary geographic focus	Other
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Lower Columbia; Middle Columbia; Snake River; Upper Columbia
Frequency of sample collection	Seasonally
Number of years data collected	1 to 5
Data content	Hydropower; Salmonid Passage; Salmonid Productivity
Other data	
Rate data quality/condition (0-18)	18
Rate design, scope, implementation (0-15)	15
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email; Web Downloadable www.pittag.org
Data contact person	Larry Basham 503-230-4287 lbasham@fpc.org
How often do you analyze, summarize, compile raw data?	As Needed; Annually; Daily; Monthly; Weekly
Report/publish data?	Annually
Analyzed/summarized data made available?	Web Downloadable; Web Viewable www.fpc.org/fpc_docs/css/235-01.pdf www.fpc.org/fpc_docs/64-00-FinalCssAR.pdf
Rely on data from others?	No
Data readily available on maps?	No
Data exist as GIS coverage?	No
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Fish Passage Center
Database	Smolt Monitoring Program (includes Gas Bubble Trauma and Fishway Inspection)
Database acronym	SMP
Contact	Henry Franzoni - 503-230-4290 - hfranzoni@fpc.org
Overview of the monitoring program	The smolt monitoring program provides current and historic data on salmon and steelhead passage in the main stem Snake and Columbia river basins. The annual program provides daily information for inseason management decisions and is planned and implemented by the Fish Passage Center (FPC). The FPC also provides the agencies and tribes, NPPC Fish and Wildlife Program, and the FPC Board of Directors with reservoir operation (flow and spill) information and analysis, including current and historical data. The monitoring program includes river conditions, hatchery releases, smolt migration, gas bubble trauma and adult returns.
Audience/customer/user	Federal and state agencies, tribes, NPPC Fish and Wildlife Program and the FPC Board of Directors. The National Marine Fisheries Service (NMFS) Biological Opinion also relies on the operational data.
Objectives	Data from the SMP are intended to provide the information basis for federal, state and tribal recommendations for fish passage in the Federal Columbia River Hydro-electric System. Reservoir flow and spill data are used to make recommendations regarding anadromous fish passage and migration.
Authority	Internal
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Status Monitoring
Primary geographic focus	Select Reaches
Geospatially referenced?	No
Salmon Recovery Region(s)	Lower Columbia; Middle Columbia; Snake River; Upper Columbia
Frequency of sample collection	Seasonally
Number of years data collected	More than 5
Data content	Hydropower; Salmonid Passage; Salmonid Productivity
Other data	
Rate data quality/condition (0-18)	18
Rate design, scope, implementation (0-15)	15
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email; Web Downloadable; Web Requested; Web Viewable www.fpc.org/PI_Detail.html www.fpc.org/CurrentDaily/passindx.htm www.fpc.org/Passgraphs/dayPassgrphSubmit2001.htm www.fpc.org/mortqueries/totdaymorts2.htm www.fpc.org/mortqueries/totcummorts3.htm
Data contact person	Henry Franzoni - 503-230-4290 - hfranzoni@fpc.org
How often do you analyze, summarize, compile raw data?	As Needed; Annually; Monthly; Weekly; Daily
Report/publish data?	As Needed; Annually; Monthly; Weekly; Daily
Analyzed/summarized data made available?	Email; Web Downloadable; Web Requested; Web Viewable www.fpc.org/weekrprt/wr2001/2001wr.html www.fpc.org/fpc_docs/Annual_FPC_Report/final_annual_report2000.pdf www.fpc.org/fpc_docs/Fishway_Inspection/FINAL_ADULT_FISHWAY_INSPECTIONS2000.pdf
Rely on data from others?	No
Data readily available on maps?	No
Data exist as GIS coverage?	No
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Hood Canal Coordinating Council
Database	Habitat Work Schedule
Database acronym	HWS
Contact	Richard Brocksmith - 360-765-3021 - richardbrocksmith@earthlink.net
Overview of the monitoring program	Lead entities are mandated to maintain an HWS for their regions. In this case, HCCC covers all tributaries entering the Hood Canal and the Eastern Strait of Juan de Fuca. The HWS monitors all SRFB funded projects for responsible party, location of project, species affected, and estimated time and duration of the proposed restoration and/or conservation action.
Audience/customer/user	The HWS is used mainly by the lead entity to follow restoration progress, but is also available to all interested parties.
Objectives	The main objective of this effort is for implementation monitoring. The second objective of this effort is to provide a comprehensive list of SRFB-funded actions undertaken by watershed towards the end goal of salmon habitat restoration and conservation.
Authority	RCW/WAC
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Other; Status Monitoring
Primary geographic focus	Salmon Recovery Regions, ESUs; Select Reaches; Select Watersheds; Select WRIAs
Geospatially referenced?	Partially
Salmon Recovery Region(s)	Puget Sound
Frequency of sample collection	Annually
Number of years data collected	1 to 5
Data content	Landscape Activities – restoration projects; Other
Other data	Restoration and Conservation Actions
Rate data quality/condition (0-18)	16
Rate design, scope, implementation (0-15)	13
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email
Data contact person	Richard Brocksmith - 360-765-3021 - richardbrocksmith@earthlink.net
How often do you analyze, summarize, compile raw data?	Annually
Report/publish data?	As Needed
Analyzed/summarized data made available?	Email
Rely on data from others?	Yes
Data readily available on maps?	Partial
Data exist as GIS coverage?	No
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Hood Canal Coordinating Council
Database	Hood Canal Watershed Riverine Habitat Inventory and Restoration Identification and Prioritization
Database acronym	HIRIP
Contact	Richard Brocksmitth - 360-765-3021 - richardbrocksmitth@earthlink.net
Overview of the monitoring program	This recently initiated project will serve to create a single data repository in a geospatially referenced database for riverine habitat inventory data across the Hood Canal and eastern Strait of Juan de Fuca. Once completed, this database will serve to reference all historical and future habitat inventory data in the area of interest, and provide information needed to identify and prioritize restoration projects.
Audience/customer/user	The audience for this project is expected to be all salmon recovery partners interested in the condition of salmon habitat and potential restoration opportunities.
Objectives	Identify and compile existing habitat inventory data. Fill data gaps. Provide a geospatially referenced repository for riverine habitat inventory data. Identify, develop, and prioritize habitat restoration projects.
Authority	Other
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Status Monitoring; Effectiveness; Other
Primary geographic focus	Salmon Recovery Regions, ESUs; Select Reaches; Select Watersheds; Select WRIAs
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Puget Sound
Frequency of sample collection	Varies
Number of years data collected	More than 5
Data content	Exotic Species; Geologic; Instream Habitat; Land Use; Riparian Habitat; Salmonid Passage; Upland Habitat; Waterway and Channel Modification
Other data	
Rate data quality/condition (0-18)	8
Rate design, scope, implementation (0-15)	9
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email
Data contact person	Richard Brocksmitth - 360-765-3021 - richardbrocksmitth@earthlink.net
How often do you analyze, summarize, compile raw data?	Varies
Report/publish data?	Varies
Analyzed/summarized data made available?	Email
Rely on data from others?	Yes
Data readily available on maps?	Yes
Data exist as GIS coverage?	Yes
Type of funding	Short Term

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Kitsap County Stream Team
Database	Kitsap County Benthic Macroinvertebrate Biological Monitoring Program
Database acronym	
Contact	Valerie A. Koehler - 360-337-7290 - vkoehler@co.kitsap.wa.us
Overview of the monitoring program	Kitsap County recognizes the importance of conducting a coordinated, comprehensive inventory and assessment of the biological integrity of county streams. Thus, Kitsap County Stream Team has implemented a biological monitoring program that assesses 21 different sites along 19 salmonid streams to identify those streams or stream reaches with high biological integrity that should be protected, while determining areas where rehabilitation and restoration of degraded habitat should occur. To compensate for costs including labor needs, volunteers trained in benthic invertebrate sampling (specifically the Benthic Index of Biological Integrity) participate in the annual collection of invertebrate samples that are sent to a Department of Ecology accredited laboratory for identification and analysis. Trained volunteers collect samples at each site between August 15 and October 15 in order to analyze the data using the BIBI protocol.
Audience/customer/user	Data available in the Kitsap Peninsula Salmonid Refugia Study and the WRIA 15 East Kitsap Habitat Limiting Factors Assessment, in addition to data collected by the Kitsap County Surface and Stormwater Biomonitoring Program and Bremerton-Kitsap County Health District, are supplemented with the results from the Stream Team Benthic Macroinvertebrate Biological Monitoring Program.
Objectives	To assess the biological integrity of Kitsap County salmonid streams and identify areas in which land use such as urban development, forestry and agriculture impacts water quality. If the biological condition of the habitat is degraded, it will not support healthy salmonid or other fish and invertebrate populations.
Authority	Local; Other; To support Critical Areas Ordinances based on results that identify areas with high biological integrity that should be protected. To promote stewardship by the community towards our natural resources.
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Status Monitoring; Effectiveness
Primary geographic focus	Salmon Recovery Regions, ESUs; Select Watersheds; Select WRIsAs
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Washington Coast
Frequency of sample collection	Annually
Number of years data collected	1 to 5
Data content	Biological – other; Instream Habitat
Other data	
Rate data quality/condition (0-18)	15
Rate design, scope, implementation (0-15)	13
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email; Hard Copy
Data contact person	Valerie A. Koehler - 360-337-7290 - vkoehler@co.kitsap.wa.us
How often do you analyze, summarize, compile raw data?	As Needed; Annually
Report/publish data?	As Needed; Annually
Analyzed/summarized data made available?	Email; Hard Copy
Rely on data from others?	Yes
Data readily available on maps?	Partial

Data exist as GIS coverage?	Unknown
Type of funding	Short Term

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Lower Columbia Fish Recovery Board
Database	Habitat Project Monitoring
Database acronym	
Contact	Gary Wade - 360-414-4354 - gwade@tdn.com
Overview of the monitoring program	Monitor salmon protection and restoration projects completed in the lower Columbia Region.
Audience/customer/user	Washington State, SRFB, local jurisdictions, and other interested parties.
Objectives	Maintain a database on the status of all salmon recovery projects funded in the area.
Authority	RCW 77-85
Relates to watershed health and salmon recovery	Indirectly Supports
Program ongoing?	Yes
Type of monitoring	Status Monitoring; Effectiveness
Primary geographic focus	Select WRIAs
Geospatially referenced?	Partially
Salmon Recovery Region(s)	Lower Columbia
Frequency of sample collection	Continuous
Number of years data collected	1 to 5
Data content	Other
Other data	Project type, location, effectiveness and status.
Rate data quality/condition (0-18)	11
Rate design, scope, implementation (0-15)	
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email
Data contact person	Gary Wade - 360-414-4354 - gwade@tdn.com
How often do you analyze, summarize, compile raw data?	Annually
Report/publish data?	Varies
Analyzed/summarized data made available?	Email
Rely on data from others?	Yes
Data readily available on maps?	Yes
Data exist as GIS coverage?	Yes
Type of funding	Short Term

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Skagit Watershed Council
Database	Skagit Watershed Council Monitoring Program
Database acronym	
Contact	Ben Perkowski - 360-419-9326 - skagitws@sos.net
Overview of the monitoring program	The Council is currently developing an overall monitoring program designed to provide a systematic, standardized program for collecting, storing and distributing implementation monitoring results for restoration and protection projects in the Skagit and Samish River basins, as well as a strategy for effectiveness monitoring for restoration and protection activities in the basin that links with other state and regional efforts. This program is not currently active. We are focusing on developing a framework for this program as well as recommended protocols for baseline and implementation monitoring and a system for data collection and storage at the Council level. The overall framework will include development of a strategy for effectiveness monitoring. We expect this development to occur in coordination with the state and possibly other efforts.
Audience/customer/user	This will be refined as we develop our program, but the immediate audience and users will be Council member organizations, which include the co-managers, Skagit County, Skagit Fisheries enhancement Group, the U.S Forest Service, and other agencies and organizations involved in restoration and protection activities in the basin.
Objectives	We will have more concrete objectives as the program develops. In addition to goals listed above, we plan to incorporate relevant existing data from member organizations that have been collecting monitoring data in the basin such as fish and habitat surveys at already completed restoration projects. These data have not yet been collected/stored at the Council.
Authority	Other
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	No
Type of monitoring	
Primary geographic focus	Select WRIAs
Geospatially referenced?	Unknown
Salmon Recovery Region(s)	Puget Sound
Frequency of sample collection	Varies
Number of years data collected	Varies
Data content	Other
Other data	This question and those below are not relevant at this time since our program is not underway at this time.
Rate data quality/condition (0-18)	
Rate design, scope, implementation (0-15)	
Charge money for the data?	
Data sensitive or proprietary?	
Raw data made available?	
Data contact person	Ben Perkowski - 360-419-9326 - skagitws@sos.net
How often do you analyze, summarize, compile raw data?	
Report/publish data?	
Analyzed/summarized data made available?	
Rely on data from others?	
Data readily available on maps?	
Data exist as GIS coverage?	
Type of funding	

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	South Puget Sound Salmon Enhancement Group
Database	WRIA 14 Fish Passage Inventory
Database acronym	
Contact	Lenore Jensen - 253-446-1824 - spsseg@qwest.net
Overview of the monitoring program	The purpose of this project is to survey all culverts in WRIA 14, using WDFW protocol, to determine whether the culverts are passable to salmonids. This data is being compiled in an Access database and will be integrated into the NWIFC's SSSIAP database.
Audience/customer/user	The information will be available to everyone, but should be of most interest to potential sponsors of on-the-ground restoration projects (e.g. ourselves, conservation districts, counties, etc.).
Objectives	The specific objectives are to conduct Level A and Level B analyses as required, depending on whether a culvert is determined to be a partial barrier (Level B), complete barrier (Level A), or not a barrier. Level A analyses result in Priority Index numbers, which ascertain the relative importance of the culvert as a blockage in the watershed. The end result will be the identification of projects. Program fills a data gap and allows projects to be prioritized appropriately.
Authority	Other
Relates to watershed health and salmon recovery	Directly Supports
Program ongoing?	Yes
Type of monitoring	Other
Primary geographic focus	Select WRIAs
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Puget Sound
Frequency of sample collection	Weekly
Number of years data collected	Less Than 1
Data content	Instream Habitat; Salmonid Passage
Other data	
Rate data quality/condition (0-18)	12
Rate design, scope, implementation (0-15)	9
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Email
Data contact person	Lance Winecka - 360-427-0800 - lancewin@hotmail.com
How often do you analyze, summarize, compile raw data?	As Resources Permit
Report/publish data?	Varies
Analyzed/summarized data made available?	Email
Rely on data from others?	No
Data readily available on maps?	Yes
Data exist as GIS coverage?	Yes
Type of funding	Short Term

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Streamkeepers of Clallam County
Database	Streamkeepers Ambient Monitoring Program
Database acronym	
Contact	Ed Chadd - 360-417-2281 - streamkeepers@co.clallam.wa.us
Overview of the monitoring program	Streamkeepers, a citizen-based watershed monitoring program of Clallam County's Department of Community Development, provides volunteer opportunities and project assistance in the effort to protect and restore salmon habitat. Streamkeepers is: a volunteer opportunity for all Clallam County residents interested in monitoring, protecting, and restoring streams in our own watersheds; a service provider for watershed planning groups and habitat restoration project sponsors who need monitoring assistance on local streams. Our stream teams perform quarterly ambient monitoring at established sites on Clallam County streams. We also conduct special projects at the request of other agencies and private parties, customizing our methods to meet their needs. Streamkeepers trains volunteers to assess a variety of biological, physical, and chemical stream health indicators through a structured quarterly monitoring program.
Audience/customer/user	Our regular ambient monitoring data is meant to be provided to local natural resource planners, government agencies, elected officials, program volunteers, and the general public. Our special projects are intended primarily for the project sponsor's use, but those data sets are also available to the other constituencies mentioned above.
Objectives	1. Provide useful, credible data to local natural resource planners acting to protect and restore streams, relating to: --describing current conditions; --screening for potential problems; --identifying trends in watershed conditions; --tracking known problem areas; --supporting watershed planning and management efforts; --helping to prioritize planned efforts at stream restoration; --monitoring the effectiveness of stream restoration projects. 2. Report the information collected on a regular and timely basis. 3. Perform small-scale restoration projects on local streams. 4. Facilitate public involvement in stream monitoring and watershed stewardship.
Authority	
Relates to watershed health and salmon recovery	Indirectly Supports
Program ongoing?	Yes
Type of monitoring	Coarse Inventory; Status Monitoring; Effectiveness
Primary geographic focus	Administrative Boundaries; Select WRIAs
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Puget Sound; Washington Coast
Frequency of sample collection	Seasonally
Number of years data collected	1 to 5
Data content	Biological - other; Exotic Species; Freshwater Surface Water Quality; Hydrology; Instream Habitat; Riparian Habitat; Waterway and Channel Modification
Other data	
Rate data quality/condition (0-18)	15
Rate design, scope, implementation (0-15)	12
Charge money for the data?	Sometimes
Data sensitive or proprietary?	No
Raw data made available?	Email
Data contact person	Ed Chadd - 360-417-2281 - streamkeepers@co.clallam.wa.us
How often do you analyze, summarize, compile raw data?	Annually; As Needed; As Resources Permit; Varies
Report/publish data?	Annually; As Needed; As Resources Permit; Varies
Analyzed/summarized data made	Hard Copy; Web Viewable

available?	http://www.clallam.net/dcd/html/body_dcd_streamkeepers.htm
Rely on data from others?	No
Data readily available on maps?	No
Data exist as GIS coverage?	No
Type of funding	Ongoing

SURVEY QUESTIONS	SURVEY ANSWERS
Organization	Thurston Regional Planning Council
Database	Land Cover Mapping and Land Cover Change (1985-2000) for Thurston County
Database acronym	Land Cover
Contact	Veena Tabbutt - 360-786-5480 - tabbutv@co.thurston.wa.us
Overview of the monitoring program	Monitoring the effects of urbanization is often hindered by the lack of comprehensive land cover information. In response to this long standing problem, Thurston Regional Planning Council (TRPC) generated a Digital Land Cover Data Layer for the entire land area of Thurston County based on 5 meter panchromatic satellite data merged with 25 meter multi-spectral (7 bands) satellite data. In addition, change over time in forest cover and urban land cover was monitored.
Audience/customer/user	This project was designed to provide input of total impervious surface and effective impervious surface for hydrologic modeling efforts in Thurston County. The primary users of the data are Watershed Groups and the Stormwater Utilities of Lacey, Tumwater, Olympia and Thurston County. These data will also be used in Comprehensive Plan updates.
Objectives	The objective of the project was to generate a data layer containing effective impervious surface. Data will also be used to forecast impervious surface based on land capacity.
Authority	RCW/WAC; Local; GMA Critical Area Ordinances
Relates to watershed health and salmon recovery	Indirectly Supports
Program ongoing?	Yes
Type of monitoring	Coarse Inventory; Status Monitoring
Primary geographic focus	Administrative Boundaries; Select Watersheds
Geospatially referenced?	Yes
Salmon Recovery Region(s)	Puget Sound
Frequency of sample collection	Alternating Yrs
Number of years data collected	More than 5
Data content	Land Use
Other data	
Rate data quality/condition (0-18)	14
Rate design, scope, implementation (0-15)	12
Charge money for the data?	No
Data sensitive or proprietary?	No
Raw data made available?	Hard Copy; Web Downloadable; Web Requested http://www.trpc.org/programs/estimates and forecasts/development/
Data contact person	Veena Tabbutt - 360-786-5480 - tabbutv@co.thurston.wa.us
How often do you analyze, summarize, compile raw data?	As Needed; Every 2 Yrs
Report/publish data?	As Needed; Every 2 Yrs
Analyzed/summarized data made available?	Web Downloadable http://www.trpc.org/programs/estimates and forecasts/development/
Rely on data from others?	Yes
Data readily available on maps?	Yes
Data exist as GIS coverage?	Yes
Type of funding	Short Term

