

### Appendix S3. Historic demographically independent Pacific salmon populations sorted by species and major (level-I) ecological regions.

Appendix Table 1. Proposed historic demographically independent steelhead populations sorted by major (level-I) ecological region. Each population is characterized according to its perceived current population status and historic biodiversity. Ecological, life history and genetic diversity are characterized using the hierarchical diversity matrix (see Appendix S1).

| Steelhead population                            | Population status | Diversity category   |                        |                   | Reference   |
|---|-------------------|----------------------|------------------------|-------------------|---|
|   |                   | Ecological diversity | Life history diversity | Genetic Diversity |   |
| <b>A. Georgia Basin</b>                         |                   |                      |                        |                   |   |
| STRAIT OF GEORGIA (Mainland)                    |                   |                      |                        |                   |   |
| Ashlu Creek                                     | Extant            | A2b                  | C1b                    | B6                | Hancock and Marshall (1986)   |
| Sechelt to East Howe Sound (Chapman Creek)      | Extant            | A1                   | C1b                    | B6                | Hancock and Marshall (1986)   |
| Cheakamus/Brohm River                           | Extant            | A2b                  | C1b                    | B6                | Hancock and Marshall (1986)   |
| Seymour River / Lynn Creek                      | Extant            | A2b                  | C1b                    | B6                | Hancock and Marshall (1986)   |
| Capilano River                                  | Extinct           | A2b                  | C1b                    | B6                | Hancock and Marshall (1986), Slaney et al. (1996), DFO (1999), Brownell et al. (2001) |
| Mamquam/Stawamus rivers                         | Extant            | A2b                  | C1b                    | B6                | Hancock and Marshall (1986)   |
| Squamish River                                  | Extant            | A2b                  | C1b                    | B6                | Hancock and Marshall (1986)   |
| Brem River (summer)                             | Extant            | A2b                  | C1a                    | B6                | Hancock and Marshall (1985c)  |
| Brem River (winter)                             | Extant            | A2b                  | C1b                    | B6                | Hancock and Marshall (1985c)  |
| Upper Jervis Inlet (Vancouver//Brittain rivers) | Extant            | A2                   | C1b                    | B6                | Marshall et al. (1976a)   |
| Sechelt Inlet/Tzoonie River                     | Extant            | A2                   | C1b                    | B6                | Marshall et al. (1976a)   |
| STRAIT OF GEORGIA (East coast Vancouver Island) |                   |                      |                        |                   |   |
| Oyster River                                    | Extant            | A1                   | C1b                    | B6                | Marshall et al. (1977a)   |
| Quinsam/Campbell rivers (winter)                | Extant            | A1                   | C1b                    | B6                | Marshall et al. (1977a)   |
| Campbell River (summer)                         | Extant            | A1                   | C1a                    | B6                |   |
| Qualicum River                                  | Extant            | A2                   | C1b                    | B6                | Brown et al. (1977)   |
| Little Qualicum River                           | Extant            | A2                   | C1b                    | B6                | Brown et al. (1977)   |

| <b>Steelhead population</b>  | <b>Population status</b> | <b>Diversity category</b>   |                               |                          | <b>Reference</b>   |
|--|--------------------------|-----------------------------|-------------------------------|--------------------------|--|
|  |                          | <b>Ecological diversity</b> | <b>Life history diversity</b> | <b>Genetic Diversity</b> |  |
| Englishman River   | Extant                   | A2                          | C1b                           | B6                       | Brown et al. (1977)  |
| Puntledge River (summer)   | Extant                   | A2                          | C1a                           | B6                       | Brown et al. (1977)  |
| Puntledge River (winter)   | Extant                   | A2                          | C1b                           | B6                       |  |
| Chemainus River  | Extant                   | A1                          | C1b                           | B6                       | Marshall et al. (1976b)  |
| Nanaimo River (late run)   | Extant                   | A1                          | C1b                           | B6                       | Marshall et al. (1976b)  |
| Cowichan River   | Extant                   | A1                          | C1b                           | B6                       | Marshall et al. (1976b)  |
| Koksilah River   | Extant                   | A1                          | C1b                           | B6                       | Marshall et al. (1976b)  |
| LOWER FRASER RIVER (Chilliwack-Hope Subdistrict)   |                          |                             |                               |                          |  |
| Small south shore Lower Fraser River tributaries from mouth upstream to Hope (Clayburn/Nathan creeks, Salmon River)                                | Extant                   | A1                          | C1b                           | B7                       | Marshall et al. (1980b), DFO (1999)  |
| Sumas/Chilliwack-Vedder rivers (winter)  | Extant                   | A2                          | C1b                           | B7                       | Marshall et al. (1980b), DFO (1999)  |
| Coquihalla River (summer)  | Extant                   | A2                          | C1a                           | B7                       | Marshall et al. (1980b), DFO (1999)  |
| Silverhope Creek   | Extant                   | A2                          | C1b                           | B7                       | Marshall et al. (1980b), DFO (1999)  |
| Stave River  | Extinct                  | A2a                         | C1b                           | B7                       | DFO (1999), Slaney et al. (1996), Brownell et al. (2001)                                       |
| Lower Pitt River and tributaries/Coquitlam River (Alouette/North Alouette rivers)  | Extant                   | A2a                         | C1b                           | B7                       | DFO (1999)   |
| Upper Pitt River   | Extant                   | A2a                         | C1b                           | B7                       | DFO (1999)   |
| Small north shore Lower Fraser River tributaries from mouth to below Stave River (Kanaka/ Whonnock creeks) (Brunette River, China Creek - extinct) | Extant                   | A1                          | C1b                           | B7                       | DFO (1999), Brownell et al. (2001), Hancock and Marshall (1985a), Hancock and Marshall (1985b) |
| Small north shore Lower Fraser River tributaries from Stave River to Hope (Nicomen/Hatzic sloughs, Ruby/Mahood creeks)                             | Extant                   | A1                          | C1b                           | B7                       | DFO (1999)   |
| Harrison/Chehalis rivers, Weaver Creek   | Extant                   | A2a                         | C1b                           | B7                       | DFO (1999)   |
| Lillooet/Birkenhead River  | Extant                   | A2                          | C1b                           | B7                       |  |
| PUGET SOUND  |                          |                             |                               |                          |  |

| Steelhead population  | Population status | Diversity category   |                        |                   | Reference                              |
|---|-------------------|----------------------|------------------------|-------------------|--|
|   |                   | Ecological diversity | Life history diversity | Genetic Diversity |  |
| South Fork/Middle Fork Nooksack River (Middle Fork summer - extinct in native habitat) (summer) | Extant            | A2a                  | C1a                    | B1                | WDF et al. (1993), Busby et al. (1996) |
| Mainstem and North Fork Nooksack River (winter)   | Extant            | A2a                  | C1b                    | B1                | WDF et al. (1993), Busby et al. (1996) |
| South Fork Nooksack River (winter)  | Extant            | A2a                  | C1b                    | B1                | WDF et al. (1993), Busby et al. (1996) |
| Middle Fork Nooksack River (winter)   | Extant            | A2a                  | C1b                    | B1                | WDF et al. (1993), Busby et al. (1996) |
| Campbell/Nicomekl/Serpentine rivers   | Extant            | A1a                  | C1b                    | B1                | DFO (1999)                             |
| Samish River (winter)   | Extant            | A1a                  | C1b                    | B1                | WDF et al. (1993), Busby et al. (1996) |
| Sauk River (summer)   | Extant            | A2a                  | C1a                    | B1                | WDF et al. (1993)                      |
| Cascade River (summer)  | Extant            | A2a                  | C1a                    | B1                | WDF et al. (1993), Busby et al. (1996) |
| Mainstem Skagit River and lower tributaries (winter)  | Extant            | A2a                  | C1b                    | B1                | WDF et al. (1993)                      |
| Baker River (winter)  | Extant            | A2a                  | C1b                    | B1                |  |
| Sauk River (winter)   | Extant            | A2a                  | C1b                    | B1                | WDF et al. (1993), Busby et al. (1996) |
| Cascade River (winter)  | Extant            | A2a                  | C1b                    | B1                | WDF et al. (1993)                      |
| Stillaguamish River (Deer/Canyon creeks) (Canyon Creek - highly modified) (summer)              | Extant            | A2a                  | C1a                    | B1                | WDF et al. (1993), Busby et al. (1996) |
| Stillaguamish River (winter)  | Extant            | A2a                  | C1b                    | B1                | WDF et al. (1993), Busby et al. (1996) |
| Snohomish River (N. Fork Skykomish/Tolt rivers) (summer)  | Extant            | A2a                  | C1a                    | B1                | WDF et al. (1993), Busby et al. (1996) |
| Pilchuck River (winter)   | Extant            | A2a                  | C1b                    | B1                | WDF et al. (1993)                      |
| Snohomish/Skykomish rivers (winter)   | Extant            | A2a                  | C1b                    | B1                | Busby et al. (1996)                    |
| Snoqualmie River (winter)   | Extant            | A2a                  | C1b                    | B1                | WDF et al. (1993)                      |
| Lake Washington/Lake Sammamish tributaries (winter)   | Extant            | A1a                  | C1b                    | B1                | WDF et al. (1993), Busby et al. (1996) |
| Black/Cedar rivers (winter)   | Extant            | A1a                  | C1b                    | B1                | WDF et al. (1993)                      |
| Duwamish/Green rivers (winter)  | Extant            | A2a                  | C1b                    | B1                | Busby et al. (1996)                    |
| Mainstem Puyallup River (winter)  | Extant            | A2a                  | C1b                    | B1                | WDF et al. (1993), Busby et al. (1996) |
| White River (winter)  | Extant            | A2a                  | C1b                    | B1                | WDF et al. (1993)                      |
| Carbon River (winter)   | Extant            | A2a                  | C1b                    | B1                | WDF et al. (1993)                      |
| Nisqually River (winter)  | Extant            | A2a                  | C1b                    | B1                | Busby et al. (1996)                    |
| Eld/Totten/Hammersley inlets (winter)   | Extant            | A1b                  | C1b                    | B1                | WDF et al. (1993)                      |

| Steelhead population   | Population status | Diversity category   |                        |                   | Reference                              |
|--|-------------------|----------------------|------------------------|-------------------|--|
|  |                   | Ecological diversity | Life history diversity | Genetic Diversity |  |
| Case/Carr inlets (winter)  | Extant            | A1b                  | C1b                    | B1                | WDF et al. (1993)                      |
| East Kitsap Peninsula (winter)   | Extant            | A1b                  | C1b                    | B1                | WDF et al. (1993)                      |
| <b>HOOD CANAL</b>  |                   |                      |                        |                   |  |
| Skokomish River (summer)   | Extant            | A2a                  | C1a                    | B1                | WDF et al. (1993), Busby et al. (1996) |
| Skokomish River (winter)   | Extant            | A2a                  | C1b                    | B1                | WDF et al. (1993), Busby et al. (1996) |
| Duckabush/Dosewallips rivers (summer)  | Extant            | A2b                  | C1a                    | B1                | WDF et al. (1993), Busby et al. (1996) |
| Hamma Hamma/Duckabush/<br>Dosewallips/Quilcene rivers, Dabob Bay<br>(winter) | Extant            | A2b                  | C1b                    | B1                | WDF et al. (1993)                      |
| Southeast Hood Canal (Tahuya/<br>Dewatto/Union rivers) (winter)              | Extant            | A1b                  | C1b                    | B1                | WDF et al. (1993)                      |
| <b>STRAIT OF JUAN DE FUCA</b>  |                   |                      |                        |                   |  |
| Dungeness/Elwha rivers (Elwha extinct in<br>native habitat) (summer)         | Extant            | A2a                  | C1a                    | B1                | WDF et al. (1993), Busby et al. (1996) |
| Discovery/Sequim bays, Morse Creek<br>(winter)                               | Extant            | A1b                  | C1b                    | B1                | WDF et al. (1993), Busby et al. (1996) |
| Dungeness River (winter)   | Extant            | A2a                  | C1b                    | B1                | WDF et al. (1993), Busby et al. (1996) |
| Elwha River (winter)   | Extant            | A2b                  | C1b                    | B1                | WDF et al. (1993), Busby et al. (1996) |
| <b>B. Coastal Rainforest</b>   |                   |                      |                        |                   |  |
| <b>WEST COAST VANCOUVER ISLAND</b>   |                   |                      |                        |                   |  |
| Marble River   | Extant            | B1                   | C1b                    | B8                | Brown et al. (1979d)                   |
| Koprino River  | Extant            | B1                   | C1b                    | B8                | Brown et al. (1979d)                   |
| Klaskish River   | Extant            | B1                   | C1b                    | B8                | Brown et al. (1979d)                   |
| Fisherman River  | Extant            | B1                   | C1b                    | B8                | Brown et al. (1979d)                   |
| Goodspeed River  | Extant            | B1                   | C1b                    | B8                | Brown et al. (1979d)                   |
| Mahatta Creek  | Extant            | B1                   | C1b                    | B8                | Brown et al. (1979d)                   |
| San Josef Creek  | Extant            | B1                   | C1b                    | B8                | Brown et al. (1979d)                   |
| Waukwaas Creek   | Extant            | B1                   | C1b                    | B8                | Brown et al. (1979d)                   |
| Artlish River  | Extant            | B1                   | C1b                    | B8                | Marshall et al. (1980a)                |
| Battle River   | Extant            | B1                   | C1b                    | B8                | Marshall et al. (1980a)                |
| Clanninick Creek (winter)  | Extant            | B1                   | C1b                    | B8                | Marshall et al. (1980a)                |

| Steelhead population      | Population status | Diversity category   |                        |                   | Reference               |
|---------------------------|-------------------|----------------------|------------------------|-------------------|-------------------------|
|                           |                   | Ecological diversity | Life history diversity | Genetic Diversity |                         |
| Clanninick Creek (summer) | Extant            | B1                   | C1a                    | B8                | Marshall et al. (1980a) |
| Kaouk River (winter)      | Extant            | B1                   | C1b                    | B8                | Marshall et al. (1980a) |
| Kaouk River (summer)      | Extant            | B1                   | C1a                    | B8                | Marshall et al. (1980a) |
| Kashutl River (winter)    | Extant            | B1                   | C1b                    | B8                | Marshall et al. (1980a) |
| Kashutl River (summer)    | Extant            | B1                   | C1a                    | B8                | Marshall et al. (1980a) |
| Kauwinch River            | Extant            | B1                   | C1b                    | B8                | Marshall et al. (1980a) |
| Malksope River            | Extant            | B1                   | C1b                    | B8                | Marshall et al. (1980a) |
| Nasparti River (winter)   | Extant            | B1                   | C1b                    | B8                | Marshall et al. (1980a) |
| Naspart i River (summer)  | Extant            | B1                   | C1a                    | B8                | Marshall et al. (1980a) |
| Ououkinsh River           | Extant            | B1                   | C1b                    | B8                | Marshall et al. (1980a) |
| Power River (winter)      | Extant            | B1                   | C1b                    | B8                | Marshall et al. (1980a) |
| Power River (summer)      | Extant            | B1                   | C1a                    | B8                | Marshall et al. (1980a) |
| Tahsish River (winter)    | Extant            | B1                   | C1b                    | B8                | Marshall et al. (1980a) |
| Tahsish River (summer)    | Extant            | B1                   | C1a                    | B8                | Marshall et al. (1980a) |
| Burman River              | Extant            | B1                   | C1b                    | B8                | Brown et al. (1979e)    |
| Conuma River              | Extant            | B1                   | C1b                    | B8                | Brown et al. (1979e)    |
| Gold and Muchalat rivers  | Extant            | B1                   | C1b                    | B8                | Brown et al. (1979e)    |
| Jacklah River (winter)    | Extant            | B1                   | C1b                    | B8                | Brown et al. (1979e)    |
| Jacklah River (summer)    | Extant            | B1                   | C1a                    | B8                | Brown et al. (1979e)    |
| Leiner River              | Extant            | B1                   | C1b                    | B8                | Brown et al. (1979e)    |
| Little Zeballos River     | Extant            | B1                   | C1b                    | B8                | Brown et al. (1979e)    |
| Mooyah River              | Extant            | B1                   | C1b                    | B8                | Brown et al. (1979e)    |
| Oktwanch River            | Extant            | B1                   | C1b                    | B8                | Brown et al. (1979e)    |
| Tahsis River              | Extant            | B1                   | C1b                    | B8                | Brown et al. (1979e)    |
| Tsowwin River             | Extant            | B1                   | C1b                    | B8                | Brown et al. (1979e)    |
| Zeballos River            | Extant            | B1                   | C1b                    | B8                | Brown et al. (1979e)    |
| Bedwell River             | Extant            | B1                   | C1b                    | B8                | Brown et al. (1979c)    |
| Cypre River               | Extant            | B1                   | C1b                    | B8                | Brown et al. (1979c)    |
| Ice River                 | Extant            | B1                   | C1b                    | B8                | Brown et al. (1979c)    |
| Upper Kennedy River       | Extant            | B1                   | C1b                    | B8                | Brown et al. (1979c)    |
| Lost Shoe Creek           | Extant            | B1                   | C1b                    | B8                | Brown et al. (1979c)    |

| Steelhead population  | Population status | Diversity category   |                        |                   | Reference                              |
|---|-------------------|----------------------|------------------------|-------------------|--|
|   |                   | Ecological diversity | Life history diversity | Genetic Diversity |  |
| Megin River   | Extant            | B1                   | C1b                    | B8                | Brown et al. (1979c)                   |
| Moyeha River  | Extant            | B1                   | C1b                    | B8                | Brown et al. (1979c)                   |
| Sydney River  | Extant            | B1                   | C1b                    | B8                | Brown et al. (1979c)                   |
| Tofino Creek  | Extant            | B1                   | C1b                    | B8                | Brown et al. (1979c)                   |
| Tranquil Creek  | Extant            | B1                   | C1b                    | B8                | Brown et al. (1979c)                   |
| Caycuse River   | Extant            | B1                   | C1b                    | B8                | Brown et al. (1979b)                   |
| Nitinat River   | Extant            | B1                   | C1b                    | B8                | Brown et al. (1979b)                   |
| China Creek   | Extant            | B1                   | C1b                    | B8                | Brown et al. (1979b)                   |
| Coleman Creek   | Extant            | B1                   | C1b                    | B8                | Brown et al. (1979b)                   |
| Cous Creek  | Extant            | B1                   | C1b                    | B8                | Brown et al. (1979b)                   |
| Effingham River   | Extant            | B1                   | C1b                    | B8                | Brown et al. (1979b)                   |
| Franklin River  | Extant            | B1                   | C1b                    | B8                | Brown et al. (1979b)                   |
| Henderson River / Uchuck Creek                                  | Extant            | B1                   | C1b                    | B8                | Brown et al. (1979b)                   |
| Klanawa River   | Extant            | B1                   | C1b                    | B8                | Brown et al. (1979b)                   |
| Maggie River  | Extant            | B1                   | C1b                    | B8                | Brown et al. (1979b)                   |
| Nahmint River   | Extant            | B1                   | C1b                    | B8                | Brown et al. (1979b)                   |
| Pachena River   | Extant            | B1                   | C1b                    | B8                | Brown et al. (1979b)                   |
| Sarita River  | Extant            | B1                   | C1b                    | B8                | Brown et al. (1979b)                   |
| Somass River  | Extant            | B1                   | C1b                    | B8                | Brown et al. (1979b)                   |
| Toquart River   | Extant            | B1                   | C1b                    | B8                | Brown et al. (1979b)                   |
| Gordon and San Juan rivers                                      | Extant            | B1                   | C1b                    | B8                | Marshall et al. (1977b)                |
| Jordan River  | Extinct           | B1                   | C1b                    | B8                | Marshall et al. (1977b)                |
| Kirby/Muir/Tugwell creeks                                       | Extant            | B1                   | C1b                    | B8                | Marshall et al. (1977b)                |
| Sooke River / Demamiel and Ayum creeks                          | Extant            | B1                   | C1b                    | B8                | Marshall et al. (1977b)                |
| OLYMPIC PENINSULA   |                   |                      |                        |                   |  |
| Pysht/Lyre rivers, Salt Creek, independent tributaries (winter) | Extant            | B1b                  | C1b                    | B2                | WDF et al. (1993)                      |
| Hoko/Clallam/Sekiu/Sail rivers (winter)                         | Extant            | B1b                  | C1b                    | B2                | WDF et al. (1993)                      |
| Sooes/Waatch rivers (winter)                                    | Extant            | B1b                  | C1b                    | B2                | WDF et al. (1993)                      |
| Ozette River (winter)   | Extant            | B1b                  | C1b                    | B2                | WDF et al. (1993)                      |
| Bogachiel River (summer)  | Extant            | B2b                  | C1a                    | B2                | WDF et al. (1993), Busby et al. (1996) |

| Steelhead population   | Population status | Diversity category   |                        |                   | Reference                                 |
|--|-------------------|----------------------|------------------------|-------------------|---|
|  |                   | Ecological diversity | Life history diversity | Genetic Diversity |   |
| Sol Duc River (summer)   | Extant            | B2b                  | C1a                    | B2                | WDF et al. (1993), Busby et al. (1996)    |
| Calawah River (summer)   | Extant            | B2b                  | C1a                    | B2                | WDF et al. (1993), Busby et al. (1996)    |
| Bogachiel River (winter)   | Extant            | B2b                  | C1b                    | B2                | WDF et al. (1993)                         |
| Sol Duc River (winter)   | Extant            | B2b                  | C1b                    | B2                | WDF et al. (1993)                         |
| Calawah River (winter)   | Extant            | B2b                  | C1b                    | B2                | WDF et al. (1993)                         |
| Dickey River (winter)  | Extant            | B2b                  | C1b                    | B2                | WDF et al. (1993)                         |
| Hoh River (summer)   | Extant            | B2b                  | C1a                    | B2                | WDF et al. (1993), Busby et al. (1996)    |
| Hoh River, Goodman/Mosquito creeks (winter)                      | Extant            | B2b                  | C1b                    | B2                | WDF et al. (1993)                         |
| Queets River (summer)  | Extant            | B2b                  | C1a                    | B2                | WDF et al. (1993), Busby et al. (1996)    |
| Clearwater River (summer)  | Extant            | B1b                  | C1a                    | B2                | WDF et al. (1993), Busby et al. (1996)    |
| Queets River (winter)  | Extant            | B2b                  | C1b                    | B2                | WDF et al. (1993), Busby et al. (1996)    |
| Clearwater River (winter)  | Extant            | B2b                  | C1b                    | B2                | WDF et al. (1993)                         |
| Quinault River (winter)  | Extant            | B2a                  | C1b                    | B2                | Busby et al. (1996)                       |
| Quinault River (summer)  | Extant            | B2a                  | C1a                    | B2                | WDF et al. (1993), Busby et al. (1996)    |
| <b>C. Northern Coastal (Southwest Washington to Cape Blanco)</b> |                   |                      |                        |                   |   |
| WASHINGTON   |                   |                      |                        |                   |   |
| Moclips/Copalis rivers (winter)                                  | Extant            | C4                   | C1b                    | B2                | WDF et al. (1993); Busby et al. (1996)    |
| Humtulpis River (summer)   | Extant            | C2b                  | C1a                    | B2                | WDF et al. (1993), Busby et al. (1996)    |
| Humtulpis River (winter)   | Extant            | C2b                  | C1b                    | B2                | Busby et al. (1996)                       |
| Wishkah/Hoquiam rivers (winter)                                  | Extant            | C2b                  | C1b                    | B2                | Busby et al. (1996)                       |
| Chehalis/Wynoochee rivers (summer)                               | Extant            | C2a                  | C1a                    | B2                | WDF et al. (1993)                         |
| Chehalis River (winter)  | Extant            | C2a                  | C1b                    | B2                | WDF et al. (1993), Busby et al. (1996)    |
| Wynoochee River (winter)   | Extant            | C2a                  | C1b                    | B2                | WDF et al. (1993), Busby et al. (1996)    |
| Satsop River (winter)  | Extant            | C2a                  | C1b                    | B2                | WDF et al. (1993), Busby et al. (1996)    |
| North/Willapa/Palix rivers (winter)                              | Extant            | C2b                  | C1b                    | B2                | WDF et al. (1993)                         |
| Nemah/Naselle/Bear rivers (winter)                               | Extant            | C2b                  | C1b                    | B2                | WDF et al. (1993)                         |
| COLUMBIA RIVER   |                   |                      |                        |                   |   |
| Chinook/Grays/Deep rivers, Crooked Creek (winter)                | Extant            | C1                   | C1b                    | B3                | Busby et al. (1996), Phelps et al. (1997) |
| Lewis & Clark/Youngs/Klaskanine rivers (winter)                  | Extant            | C1                   | C1b                    | B3                | Chilcote (1997)                           |

| Steelhead population                                    | Population status | Diversity category   |                        |                   | Reference                                 |
|---|-------------------|----------------------|------------------------|-------------------|---|
|   |                   | Ecological diversity | Life history diversity | Genetic Diversity |   |
| Big/Bear/Gnat creeks (winter)                           | Extant            | C1                   | C1b                    | B3                | Chilcote (1997)                           |
| Jim Crow/Skamokawa creeks, Elochoman River (winter)     | Extant            | C1                   | C1b                    | B3                | Phelps et al. (1997), Chilcote (1997)     |
| Mill /Abernathy/Germany/Coal creeks (winter)            | Extant            | C1                   | C1b                    | B3                | Busby et al. (1996), Phelps et al. (1997) |
| Clatskanie River, Hunt/Plympton/ Beaver creeks (winter) | Extant            | C1                   | C1b                    | B3                | Chilcote (1997)                           |
| <b>OREGON COAST</b>                                     |                   |                      |                        |                   |   |
| Necanicum River (winter)                                | Extant            | C4                   | C1b                    | B5                | Chilcote (1997)                           |
| North Nehalem River (winter)                            | Extant            | C2b                  | C1b                    | B5                | Chilcote (1997)                           |
| Lower Nehalem River (winter)                            | Extant            | C2b                  | C1b                    | B5                | Chilcote (1997)                           |
| Upper Nehalem River (winter)                            | Extant            | C2b                  | C1b                    | B5                | Chilcote (1997)                           |
| Miami River (winter)                                    | Extant            | C2b                  | C1b                    | B5                | Chilcote (1997)                           |
| Kilchis River (winter)                                  | Extant            | C2b                  | C1b                    | B5                | Chilcote (1997)                           |
| Wilson River (winter)                                   | Extant            | C2b                  | C1b                    | B5                | Chilcote (1997)                           |
| Trask River (winter)                                    | Extant            | C2b                  | C1b                    | B5                | Chilcote (1997)                           |
| Tillamook River (winter)                                | Extant            | C2b                  | C1b                    | B5                | Chilcote (1997)                           |
| Nestucca River (winter)                                 | Extant            | C2b                  | C1b                    | B5                | Chilcote (1997)                           |
| Little Nestucca River (winter)                          | Extant            | C2b                  | C1b                    | B5                | Chilcote (1997)                           |
| Salmon River (winter)                                   | Extant            | C4                   | C1b                    | B5                | Chilcote (1997)                           |
| Siletz River, Drift Creek (winter)                      | Extant            | C2b                  | C1b                    | B5                | Chilcote (1997)                           |
| Siletz River (summer)                                   | Extant            | C2b                  | C1a                    | B5                | Chilcote (1997)                           |
| Yaquina River (winter)                                  | Extant            | C2b                  | C1b                    | B5                | Chilcote (1997)                           |
| Alsea River, Drift Creek (winter)                       | Extant            | C2b                  | C1b                    | B5                | Chilcote (1997)                           |
| Yachats River, Tenmile/ Cummins/Big creeks (winter)     | Extant            | C4                   | C1b                    | B5                | Chilcote (1997)                           |
| Siuslaw River (winter)                                  | Extant            | C2b                  | C1b                    | B5                | Chilcote (1997)                           |
| Smith River (winter)                                    | Extant            | C2b                  | C1b                    | B5                | Chilcote (1997)                           |
| North Umpqua River (winter)                             | Extant            | C2a                  | C1b                    | B5                | Chilcote (1997)                           |
| North Umpqua River (summer)                             | Extant            | C2a                  | C1a                    | B5                | Chilcote (1997)                           |
| South Umpqua River (winter)                             | Extant            | C2a                  | C1b                    | B5                | Chilcote (1997)                           |
| South Umpqua River (summer)                             | Extinct           | C2a                  | C1a                    | B5                | Nehlsen et al. (1991)                     |



| Steelhead population   | Population status | Diversity category   |                        |                   | Reference  |
|--|-------------------|----------------------|------------------------|-------------------|--|
|  |                   | Ecological diversity | Life history diversity | Genetic Diversity |  |
| Coos River (winter)  | Extant            | C2b                  | C1b                    | B5                | Chilcote (1997)  |
| Millicoma River (winter)   | Extant            | C2b                  | C1b                    | B5                | Chilcote (1997)  |
| Coquille River (winter)  | Extant            | C2b                  | C1b                    | B5                | Chilcote (1997)  |
| South Coquille River (winter)  | Extant            | C2b                  | C1b                    | B5                | Chilcote (1997)  |
| Floras Creek, Sixes River (winter)   | Extant            | C4                   | C1b                    | B5                | Chilcote (1997)  |
| <b>D. Klamath Mountains Province</b>   |                   |                      |                        |                   |  |
| OREGON   |                   |                      |                        |                   |  |
| Elk River, Euchre Creek (winter)   | Extant            | D3                   | D1b                    | C                 | Chilcote (1997)  |
| Upper Rogue River (winter)   | Extant            | D1                   | D1b                    | C                 | Chilcote (1997)  |
| Upper Rogue River (summer)   | Extant            | D1                   | D1a                    | C                 | Chilcote (1997)  |
| Lower Rogue River (winter)   | Extant            | D1                   | D1b                    | C                 | Chilcote (1997)  |
| Applegate River (winter)   | Extant            | D1                   | D1b                    | C                 | Chilcote (1997)  |
| Applegate River (summer)   | Extant            | D1                   | D1a                    | C                 | Chilcote (1997)  |
| Illinois River (winter)  | Extant            | D1                   | D1b                    | C                 | Chilcote (1997)  |
| Hunter Creek, Pistol River (winter)  | Extant            | D3                   | D1b                    | C                 | Chilcote (1997)  |
| Chetco/Winchuck rivers (winter)  | Extant            | D3                   | D1b                    | C                 | Chilcote (1997)  |
| CALIFORNIA   |                   |                      |                        |                   |  |
| Smith River (winter)   | Extant            | D3                   | D1b                    | C                 | Busby et al. (1996)  |
| Smith River (summer)   | Extant            | D3                   | D1a                    | C                 | Busby et al. (1996), Moyle et al. (1995)                         |
| KLAMATH RIVER  |                   |                      |                        |                   |  |
| Lower Klamath River tributaries below Salmon River confluence (Blue/Redcap/Bluff/Camp creeks) (summer)   | Extant            | D2                   | D1a                    | C                 | Busby et al. (1996), Kier Associates (1991)                      |
| Middle Klamath River/Upper Klamath River tributaries above confluence with Salmon River (Elk/Dillon/Indian/Clear/Grider/ Ukonom creeks) (summer) | Extant            | D2                   | D1a                    | C                 | Busby et al. (1996), Moyle et al. (1995), Kier Associates (1991) |
| Salmon River, Wooley Creek (summer)  | Extant            | D2                   | D1a                    | C                 | Busby et al. (1996), Moyle et al. (1995), Kier Associates (1991) |
| Scott River (summer)   | Extant            | D2                   | D1a                    | C                 | Kier Associates (1991)   |

| Steelhead population   | Population status                                 | Diversity category   |                        |                   | Reference  |
|--|---|----------------------|------------------------|-------------------|--|
|  |   | Ecological diversity | Life history diversity | Genetic Diversity |  |
| Lower Klamath River tributaries below Trinity River confluence (Blue Creek) (fall/winter)        | Extant  | D2                   | D1a                    | C                 | Kier Associates (1991), Leidy and Leidy (1984)                                 |
| Middle Klamath River tributaries from confluence with Trinity River to Scott River (fall/winter) | Extant  | D2                   | D1a                    | C                 | Kier Associates (1991), Leidy and Leidy (1984)                                 |
| Klamath River and tributaries above Scott River to Iron Gate Hatchery (fall/winter)              | Extant  | D2                   | D1a                    | C                 | Kier Associates (1991), Leidy and Leidy (1984)                                 |
| Upper Klamath River (fall/winter) (remnant spawned at Iron Gate Hatchery)                        | Extant  | D2                   | D1a                    | C                 | Kier Associates (1991)   |
| Salmon River (fall/winter)   | Extant  | D2                   | D1a                    | C                 | Busby et al. (1996), Kier Associates (1991), Leidy and Leidy (1984)            |
| Scott River (fall/winter)  | Extant  | D2                   | D1a                    | C                 | Kier Associates (1991), Leidy and Leidy (1984)                                 |
| Shasta River (fall/winter)   | Extant  | D2                   | D1a                    | C                 | Kier Associates (1991)   |
| Williamson River (spring)  | Extinct (original population existence uncertain) | D2                   | D1                     | H                 | Evermann and Meek (1898), Behnke (1992), Kostow (1995), Hamilton et al. (2005) |
| Sprague River (spring)   | Extinct (original population existence uncertain) | D2                   | D1                     | H                 | Evermann and Meek (1898), Behnke (1992), Kostow (1995), Hamilton et al. (2005) |
| Wood River (spring)  | Extinct (original population existence uncertain) | D2                   | D1                     | H                 | Evermann and Meek (1898), Behnke (1992), Kostow (1995), Hamilton et al. (2005) |
| <b>TRINITY RIVER</b>   |   |                      |                        |                   |  |
| South Fork Trinity River, Hayfork Creek (summer)   | Extant  | D2                   | D1a                    | C                 | Moyle et al. (1995), Kier Associates (1991)                                    |
| Middle Trinity River tributaries (Canyon Creek, New/North Fork Trinity rivers) (summer)          | Extant  | D2                   | D1a                    | C                 | Moyle et al. (1995), Kier Associates (1991), Moffett and Smith (1950)          |

| Steelhead population  | Population status | Diversity category   |                        |                   | Reference  |
|---|-------------------|----------------------|------------------------|-------------------|--|
|   |                   | Ecological diversity | Life history diversity | Genetic Diversity |  |
| Lower Mainstem Trinity River tributaries (from Klamath River confluence to North Fork Trinity River) (New River) (fall/winter)                    | Extant            | D2                   | D1a                    | C                 | Kier Associates (1991), Leidy and Leidy (1984)   |
| Trinity River tributaries (from North Fork Trinity River to Lewiston Dam) (fall/winter)   | Extant            | D2                   | D1a                    | C                 | Kier Associates (1991), Leidy and Leidy (1984)   |
| Upper Trinity River and tributaries (Stuart Fork/East Fork Trinity River, Coffee Creek) - remnant spawned at Trinity River Hatchery (fall/winter) | Extant            | D2                   | D1a                    | C                 | Kier Associates (1991), Moffett and Smith (1950) |
| South Fork Trinity River, Hayfork Creek (fall/winter)   | Extant            | D2                   | D1a                    | C                 | Kier Associates (1991)                           |
| <b>E. Northern California (South of Klamath River to San Lorenzo River)</b>   |                   |                      |                        |                   |  |
| Redwood Creek (winter)  | Extant            | E1                   | D1b                    | D                 | Bjorkstedt et al. (2005)                         |
| Redwood Creek (summer)  | Extant            | E1                   | D1a                    | D                 | Bjorkstedt et al. (2005)                         |
| Mad River (winter)  | Extant            | E1                   | D1b                    | D                 | Bjorkstedt et al. (2005)                         |
| Mad River (summer)  | Extant            | E1                   | D1a                    | D                 | Bjorkstedt et al. (2005)                         |
| EEL RIVER   |                   |                      |                        |                   |  |
| Van Duzen River (winter)  | Extant            | E1                   | D1b                    | D                 | Bjorkstedt et al. (2005)                         |
| South Fork Eel River (winter)   | Extant            | E1                   | D1b                    | D                 | Bjorkstedt et al. (2005)                         |
| North Fork Eel River (winter)   | Extant            | E1                   | D1b                    | D                 | Bjorkstedt et al. (2005)                         |
| Middle Fork Eel River (winter)  | Extant            | E1                   | D1b                    | D                 | Bjorkstedt et al. (2005)                         |
| Upper Mainstem Eel River (winter)   | Extant            | E1                   | D1b                    | D                 | Bjorkstedt et al. (2005)                         |
| Van Duzen River (summer)  | Extant            | E1                   | D1a                    | D                 | Bjorkstedt et al. (2005)                         |
| South Fork Eel River (summer)   | Extant            | E1                   | D1a                    | D                 | Bjorkstedt et al. (2005)                         |
| Larabee Creek (summer)  | Extant            | E1                   | D1a                    | D                 | Bjorkstedt et al. (2005)                         |
| North Fork Eel River (summer)   | Extant            | E1                   | D1a                    | D                 | Bjorkstedt et al. (2005)                         |
| Upper Middle Mainstem Eel River (summer)  | Extinct           | E1                   | D1a                    | D                 | Bjorkstedt et al. (2005)                         |
| Middle Fork Eel River (summer)  | Extant            | E1                   | D1a                    | D                 | Bjorkstedt et al. (2005)                         |
| Upper Mainstem Eel River (summer)   | Extinct           | E1                   | D1a                    | D                 | Bjorkstedt et al. (2005)                         |

| Steelhead population                              | Population status | Diversity category   |                        |                   | Reference   |
|---|-------------------|----------------------|------------------------|-------------------|---|
|   |                   | Ecological diversity | Life history diversity | Genetic Diversity |   |
| Mattole River (winter)                            | Extant            | E1                   | D1b                    | D                 | Bjorkstedt et al. (2005)  |
| Mattole River (summer)                            | Extant            | E1                   | D1a                    | D                 | Bjorkstedt et al. (2005)  |
| Ten Mile River (winter)                           | Extant            | E2                   | E1                     | D                 | Bjorkstedt et al. (2005)  |
| Noyo River (winter)                               | Extant            | E2                   | E1                     | D                 | Bjorkstedt et al. (2005)  |
| Big River (winter)                                | Extant            | E2                   | E1                     | D                 | Bjorkstedt et al. (2005)  |
| Albion River (winter)                             | Extant            | E2                   | E1                     | D                 | Bjorkstedt et al. (2005)  |
| Navarro River (winter)                            | Extant            | E2                   | E1                     | D                 | Bjorkstedt et al. (2005)  |
| Garcia River (winter)                             | Extant            | E2                   | E1                     | D                 | Bjorkstedt et al. (2005)  |
| Gualala River (winter)                            | Extant            | E2                   | E1                     | D                 | Bjorkstedt et al. (2005)  |
| Upper Russian River (winter)                      | Extant            | E2                   | E1                     | E                 | Bjorkstedt et al. (2005)  |
| <b>SAN FRANCISCO BAY</b>                          |                   |                      |                        |                   |   |
| Sonoma Creek (winter)                             | Extant            | E2                   | E1                     | E                 | Bjorkstedt et al. (2005)  |
| Napa River (winter)                               | Extant            | E2                   | E1                     | E                 | Bjorkstedt et al. (2005)  |
| San Leandro Creek (winter)                        | Extant            | E2                   | E1                     | E                 | Bjorkstedt et al. (2005)  |
| San Lorenzo Creek (winter)                        | Extant            | E2                   | E1                     | E                 | Bjorkstedt et al. (2005)  |
| Alameda Creek (winter)                            | Extant            | E2                   | E1                     | E                 | Bjorkstedt et al. (2005)  |
| Coyote Creek (winter)                             | Extant            | E2                   | E1                     | E                 | Bjorkstedt et al. (2005)  |
| Guadalupe River (winter)                          | Extant            | E2                   | E1                     | E                 | Bjorkstedt et al. (2005)  |
| San Gregorio Creek (winter)                       | Extant            | E2                   | E1                     | E                 | Bjorkstedt et al. (2005)  |
| Pescadero Creek (winter)                          | Extant            | E2                   | E1                     | E                 | Bjorkstedt et al. (2005)  |
| San Lorenzo River (winter)                        | Extant            | E2                   | E1                     | E                 | Bjorkstedt et al. (2005)  |
| <b>F. Southern California</b>                     |                   |                      |                        |                   |   |
| Pajaro River                                      | Extant            | F1                   | F1                     | F                 | Snyder (1914), Busby et al. (1996), Titus et al. (in prep.), Boughton et al. 2006 |
| Gabilan Creek (Salinas River)                     | Extant            | F1                   | F1                     | F                 | Boughton et al. 2006  |
| Arroyo Seco (Salinas River)                       | Extant            | F1                   | F1                     | F                 | Boughton et al. 2006  |
| Nacimiento, San Antonio, and upper Salinas rivers | Extant            | F1                   | F1                     | F                 | Boughton et al. 2006  |
| Carmel River                                      | Extant            | F1                   | F1                     | F                 | Busby et al. (1996), Titus et al. (in prep.), Boughton et al. 2006                |
| San Jose Creek                                    | Extant            | F1                   | F1                     | F                 | Boughton et al. 2006  |

| Steelhead population    | Population status | Diversity category   |                        |                   | Reference            |
|-------------------------|-------------------|----------------------|------------------------|-------------------|----------------------|
|                         |                   | Ecological diversity | Life history diversity | Genetic Diversity |                      |
| Malpaso Creek           | Extant            | F1                   | F1                     | F                 | Boughton et al. 2006 |
| Garrapata Creek         | Extant            | F1                   | F1                     | F                 | Boughton et al. 2006 |
| Rocky Creek             | Extant            | F1                   | F1                     | F                 | Boughton et al. 2006 |
| Bixby Creek             | Extant            | F1                   | F1                     | F                 | Boughton et al. 2006 |
| Little Sur River        | Extant            | F1                   | F1                     | F                 | Boughton et al. 2006 |
| Big Sur River           | Extant            | F1                   | F1                     | F                 | Boughton et al. 2006 |
| Partington Creek        | Extant            | F1                   | F1                     | F                 | Boughton et al. 2006 |
| Big Creek               | Extant            | F1                   | F1                     | F                 | Boughton et al. 2006 |
| Vicente Creek           | Extant            | F1                   | F1                     | F                 | Boughton et al. 2006 |
| Limekiln Creek          | Extant            | F1                   | F1                     | F                 | Boughton et al. 2006 |
| Mill Creek              | Extant            | F1                   | F1                     | F                 | Boughton et al. 2006 |
| Prewitt Creek           | Extant            | F1                   | F1                     | F                 | Boughton et al. 2006 |
| Plaskett Creek          | Extant            | F1                   | F1                     | F                 | Boughton et al. 2006 |
| Willow Creek - Monterey | Extant            | F1                   | F1                     | F                 | Boughton et al. 2006 |
| Alder Creek             | Extant            | F1                   | F1                     | F                 | Boughton et al. 2006 |
| Villa Creek - Monterey  | Extant            | F1                   | F1                     | F                 | Boughton et al. 2006 |
| Salmon Creek            | Extant            | F1                   | F1                     | F                 | Boughton et al. 2006 |
| San Carpoforo Creek     | Extant            | F1                   | F1                     | F                 | Boughton et al. 2006 |
| Arroyo de la Cruz       | Extant            | F1                   | F1                     | F                 | Boughton et al. 2006 |
| Little Pico Creek       | Extant            | F1                   | F1                     | F                 | Boughton et al. 2006 |
| Pico Creek              | Extant            | F1                   | F1                     | F                 | Boughton et al. 2006 |
| San Simeon Creek        | Extant            | F1                   | F1                     | F                 | Boughton et al. 2006 |
| Santa Rosa Creek        | Extant            | F1                   | F1                     | F                 | Boughton et al. 2006 |
| Villa Creek - SLO       | Extant            | F1                   | F1                     | F                 | Boughton et al. 2006 |
| Cayucos Creek           | Extinct           | F1                   | F1                     | F                 | Boughton et al. 2006 |
| Old Creek               | Extinct           | F1                   | F1                     | F                 | Boughton et al. 2006 |
| Toro Creek              | Extant            | F1                   | F1                     | F                 | Boughton et al. 2006 |
| Morro Creek             | Extant            | F1                   | F1                     | F                 | Boughton et al. 2006 |
| Chorro Creek            | Extant            | F1                   | F1                     | F                 | Boughton et al. 2006 |
| Los Osos Creek          | Extant            | F1                   | F1                     | F                 | Boughton et al. 2006 |

| <b>Steelhead population</b> | <b>Population status</b> | <b>Diversity category</b>   |                               |                          | <b>Reference</b>  |
|-----------------------------|--------------------------|-----------------------------|-------------------------------|--------------------------|---|
|                             |                          | <b>Ecological diversity</b> | <b>Life history diversity</b> | <b>Genetic Diversity</b> |   |
| Islay Creek                 | Extant                   | F1                          | F1                            | F                        | Boughton et al. 2006  |
| Coon Creek                  | Extant                   | F1                          | F1                            | F                        | Boughton et al. 2006  |
| Diablo Canyon               | Extant                   | F1                          | F1                            | F                        | Boughton et al. 2006  |
| San Luis Obispo Creek       | Extant                   | F1                          | F1                            | F                        | Boughton et al. 2006  |
| Pismo Creek                 | Extant                   | F1                          | F1                            | F                        | Boughton et al. 2006  |
| Arroyo Grande Creek         | Extant                   | F1                          | F1                            | F                        | Boughton et al. 2006  |
| Santa Maria River           | Extant                   | F1                          | F1                            | F                        | Titus et al. (in prep.), Brownell et al. (2001), Boughton et al. 2006                   |
| Santa Ynez River            | Extant                   | F1                          | F1                            | F                        | Moyle et al. (1995), Busby et al. (1996), Titus et al. (in prep.), Boughton et al. 2006 |
| Jalama Creek                | Extinct                  | F1                          | F1                            | F                        | Boughton et al. 2006  |
| Canada de Santa Anita       | Extant                   | F2                          | F1                            | F                        | Boughton et al. 2006  |
| Canada de la Gaviota        | Extant                   | F2                          | F1                            | F                        | Boughton et al. 2006  |
| Canada San Onofre           | Extinct                  | F2                          | F1                            | F                        | Boughton et al. 2006  |
| Arroyo Hondo                | Extant                   | F2                          | F1                            | F                        | Boughton et al. 2006  |
| Arroyo Quemado              | Extinct                  | F2                          | F1                            | F                        | Boughton et al. 2006  |
| Tajiguas Creek              | Extinct                  | F2                          | F1                            | F                        | Boughton et al. 2006  |
| Canada del Refugio          | Extinct                  | F2                          | F1                            | F                        | Boughton et al. 2006  |
| Canada del Venadito         | Extinct                  | F2                          | F1                            | F                        | Boughton et al. 2006  |
| Canada del Corral           | Extinct                  | F2                          | F1                            | F                        | Boughton et al. 2006  |
| Canada del Capitan          | Extinct                  | F2                          | F1                            | F                        | Boughton et al. 2006  |
| Gato Canyon                 | Extant                   | F2                          | F1                            | F                        | Boughton et al. 2006  |
| Dos Pueblos Canyon          | Extinct                  | F2                          | F1                            | F                        | Boughton et al. 2006  |
| Eagle Canyon                | Extant                   | F2                          | F1                            | F                        | Boughton et al. 2006  |
| Tecolote Canyon             | Extinct                  | F2                          | F1                            | F                        | Boughton et al. 2006  |
| Bell Canyon                 | Extinct                  | F2                          | F1                            | F                        | Boughton et al. 2006  |
| Goleta Slough Complex       | Extant                   | F2                          | F1                            | F                        | Boughton et al. 2006  |
| Arroyo Burro                | Extinct                  | F2                          | F1                            | F                        | Boughton et al. 2006  |
| Mission Creek               | Extant                   | F2                          | F1                            | F                        | Boughton et al. 2006  |
| Montecito Creek             | Extant                   | F2                          | F1                            | F                        | Boughton et al. 2006  |
| Oak Creek                   | Extinct                  | F2                          | F1                            | F                        | Boughton et al. 2006  |

| <b>Steelhead population</b>          | <b>Population status</b> | <b>Diversity category</b>   |                               |                          | <b>Reference</b>  |
|--------------------------------------|--------------------------|-----------------------------|-------------------------------|--------------------------|---|
|                                      |                          | <b>Ecological diversity</b> | <b>Life history diversity</b> | <b>Genetic Diversity</b> |   |
| San Ysidro Creek                     | Extant                   | F2                          | F1                            | F                        | Boughton et al. 2006  |
| Romero Creek                         | Extant                   | F2                          | F1                            | F                        | Boughton et al. 2006  |
| Arroyo Paredon                       | Extant                   | F2                          | F1                            | F                        | Boughton et al. 2006  |
| Carpinteria Salt Marsh Complex       | Extinct                  | F2                          | F1                            | F                        | Boughton et al. 2006  |
| Carpinteria Creek                    | Extant                   | F2                          | F1                            | F                        | Boughton et al. 2006  |
| Rincon Creek                         | Extinct                  | F2                          | F1                            | F                        | Boughton et al. 2006  |
| Ventura River                        | Extant                   | F2                          | F1                            | F                        | Boughton et al. 2006  |
| Santa Clara River                    | Extant                   | F2                          | F1                            | F                        | Busby et al. (1996), Moyle et al. (1995), Titus et al. (in prep.), Boughton et al. 2006 |
| Big Sycamore Canyon                  | Extinct                  | F2                          | F1                            | F                        | Boughton et al. 2006  |
| Arroyo Sequit                        | Extant                   | F2                          | F1                            | F                        | Boughton et al. 2006  |
| Malibu Creek                         | Extant                   | F2                          | F1                            | F                        | Boughton et al. 2006  |
| Topanga Canyon                       | Extant                   | F2                          | F1                            | F                        | Boughton et al. 2006  |
| Los Angeles River                    | Extinct                  | F2                          | F1                            | F                        | Boughton et al. 2006  |
| San Gabriel River                    | Extinct                  | F2                          | F1                            | F                        | Boughton et al. 2006  |
| Santa Ana River                      | Extinct                  | F2                          | F1                            | F                        | Boughton et al. 2006  |
| San Juan Creek                       | Extinct                  | F2                          | F1                            | F                        | Boughton et al. 2006  |
| San Mateo Creek                      | Extant                   | F2                          | F1                            | F                        | Boughton et al. 2006  |
| San Onofre Creek                     | Extinct                  | F2                          | F1                            | F                        | Boughton et al. 2006  |
| Santa Margarita River                | Extinct                  | F2                          | F1                            | F                        | Boughton et al. 2006  |
| San Luis Rey River                   | Extinct                  | F2                          | F1                            | F                        | Boughton et al. 2006  |
| San Diego River                      | Extinct                  | F2                          | F1                            | F                        | Boughton et al. 2006  |
| Sweetwater River                     | Extinct                  | F2                          | F1                            | F                        | Boughton et al. 2006  |
| Otay River                           | Extinct                  | F2                          | F1                            | F                        | Boughton et al. 2006  |
| <b>G. California Central Valley</b>  |                          |                             |                               |                          |   |
| SACRAMENTO RIVER                     |                          |                             |                               |                          |   |
| American River                       | Extant                   | G3                          | G1                            | G                        | Lindley et al. (2006)   |
| Antelope Creek                       | Extant                   | G1a                         | G1                            | G                        | Lindley et al. (2006)   |
| Battle Creek (Middle and South Fork) | Extinct                  | G1b                         | G1                            | G                        | Lindley et al. (2006)   |

| Steelhead population  | Population status | Diversity category   |                        |                   | Reference             |
|---|-------------------|----------------------|------------------------|-------------------|-----------------------|
|   |                   | Ecological diversity | Life history diversity | Genetic Diversity |                       |
| Battle Creek (Knob Gulch, North Fork, Rock Cr.)   | Extinct           | G1b                  | G1                     | G                 | Lindley et al. (2006) |
| Bear River (Feather R. basin) (North Fork)  | Extant            | G1b                  | G1                     | G                 | Lindley et al. (2006) |
| Bear River (Feather R. basin) (Long Valley Creek)   | Extinct           | G1b                  | G1                     | G                 | Lindley et al. (2006) |
| Bear River (Sacramento R. tributary)  | Extant            | G1b                  | G1                     | G                 | Lindley et al. (2006) |
| Big Chico Creek (South Fork)  | Extant            | G1b                  | G1                     | G                 | Lindley et al. (2006) |
| Big Chico Creek (Rock Cr., mainstem)  | Extant            | G1b                  | G1                     | G                 | Lindley et al. (2006) |
| Big Chico Creek (East Branch Mud Cr.)   | Extant            | G1b                  | G1                     | G                 | Lindley et al. (2006) |
| Butte Creek (Middle Fork)   | Extant            | G1b                  | G1                     | G                 | Lindley et al. (2006) |
| Butte Creek (mainstem)  | Extant            | G1b                  | G1                     | G                 | Lindley et al. (2006) |
| Cache Creek   | Extinct           | G1c                  | G1                     | G                 | Lindley et al. (2006) |
| Clear Creek   | Extant            | G1a                  | G1                     | G                 | Lindley et al. (2006) |
| Coon Creek 1(mainstem)  | Extant            | G1b                  | G1                     | G                 | Lindley et al. (2006) |
| Coon Creek 2 (mainstem)   | Extant            | G1b                  | G1                     | G                 | Lindley et al. (2006) |
| Cottonwood Creek (mainstem)   | Extant            | G1a                  | G1                     | G                 | Lindley et al. (2006) |
| Cottonwood Creek (South Fork)   | Extant            | G1a                  | G1                     | G                 | Lindley et al. (2006) |
| Cottonwood Creek (Jerusalem Cr., Moon Fork, NF Bear Cr.)  | Extant            | G1a                  | G1                     | G                 | Lindley et al. (2006) |
| Cottonwood Creek (Duncan Cr., Soap Cr., mainstem)   | Extant            | G1a                  | G1                     | G                 | Lindley et al. (2006) |
| Cottonwood Creek (Wells Cr.)  | Extant            | G1a                  | G1                     | G                 | Lindley et al. (2006) |
| Cottonwood Creek (mainstem)   | Extant            | G1a                  | G1                     | G                 | Lindley et al. (2006) |
| Deer Creek (Sacramento R. tributary)  | Extant            | G1b                  | G1                     | G                 | Lindley et al. (2006) |
| Elder Creek   | Extant            | G1a                  | G1                     | G                 | Lindley et al. (2006) |
| Feather River (Briscoe Cr.)   | Extant            | G1b                  | G1                     | G                 | Lindley et al. (2006) |
| Feather River (Rocky Honcut Cr., Canyon Cr., Concow Cr., Little Butte Cr., Middle Fork, North Fork) | Extant            | G1b                  | G1                     | G                 | Lindley et al. (2006) |
| Feather River (Elk Cr., West Branch)  | Extant            | G1b                  | G1                     | G                 | Lindley et al. (2006) |
| Little Cow Creek (Clover Cr.)   | Extant            | G1b                  | G1                     | G                 | Lindley et al. (2006) |
| Little Cow Creek (South Cow Cr.)  | Extant            | G1b                  | G1                     | G                 | Lindley et al. (2006) |



| <b>Steelhead population</b>   | <b>Population status</b> | <b>Diversity category</b>   |                               |                          | <b>Reference</b>      |
|---|--------------------------|-----------------------------|-------------------------------|--------------------------|-----------------------|
|   |                          | <b>Ecological diversity</b> | <b>Life history diversity</b> | <b>Genetic Diversity</b> |                       |
| Little Cow Creek (Cedar Cr., mainstem)                              | Extant                   | G1b                         | G1                            | G                        | Lindley et al. (2006) |
| Little Cow Creek (Gelndenning Cr., Old Cow Cr.)                     | Extant                   | G1b                         | G1                            | G                        | Lindley et al. (2006) |
| McCloud River   | Extinct                  | G1a                         | G1                            | G                        | Lindley et al. (2006) |
| Mill Creek  | Extant                   | G1b                         | G1                            | G                        | Lindley et al. (2006) |
| Paynes Creek  | Extant                   | G1b                         | G1                            | G                        | Lindley et al. (2006) |
| Pit River (Squaw Cr.)   | Extinct                  | G1a                         | G1                            | G                        | Lindley et al. (2006) |
| Pit River (Potem Cr., mainstem)                                     | Extinct                  | G1a                         | G1                            | G                        | Lindley et al. (2006) |
| Putah Creek   | Extinct                  | G1c                         | G1                            | G                        | Lindley et al. (2006) |
| Stony Creek (Grindstone Cr., North Fork, South Fork, Salt Cr.)      | Extant                   | G1c                         | G1                            | G                        | Lindley et al. (2006) |
| Stony Creek (Little Stony Cr., Salt Cr., South Honcut Cr.)          | Extant                   | G1c                         | G1                            | G                        | Lindley et al. (2006) |
| Suisun Bay tributaries (northern Kelso Cr., Sullivan Cr., mainstem) | Extant                   | G3                          | G1                            | G                        | Lindley et al. (2006) |
| Sweany Creek  | Extant                   | G1c                         | G1                            | G                        | Lindley et al. (2006) |
| Thomes Creek  | Extant                   | G1c                         | G1                            | G                        | Lindley et al. (2006) |
| Toomes Creek  | Extant                   | G1b                         | G1                            | G                        | Lindley et al. (2006) |
| Upper Sacramento River  | Extinct                  | G1a                         | G1                            | G                        | Lindley et al. (2006) |
| Yuba River (mainstem)   | Extant                   | G1b                         | G1                            | G                        | Lindley et al. (2006) |
| Yuba River (Dry Cr., mainstem)                                      | Extant                   | G1b                         | G1                            | G                        | Lindley et al. (2006) |
| <b>SAN JOAQUIN RIVER</b>  |                          |                             |                               |                          |                       |
| Calaveras River (Woods Cr.)   | Extinct                  | G2                          | G1                            | G                        | Lindley et al. (2006) |
| Calaveras River (mainstem)  | Extinct                  | G2                          | G1                            | G                        | Lindley et al. (2006) |
| Calaveras River (San Antonio Cr., San Domingo Cr.)                  | Extinct                  | G2                          | G1                            | G                        | Lindley et al. (2006) |
| Calaveras River (McKinney Cr., O'Neil Cr.)                          | Extinct                  | G2                          | G1                            | G                        | Lindley et al. (2006) |
| Caliente Creek (Indian Cr.)   | Extinct                  | G2                          | G1                            | G                        | Lindley et al. (2006) |
| Caliente Creek (Tehachapi Cr.)                                      | Extinct                  | G2                          | G1                            | G                        | Lindley et al. (2006) |
| Caliente Creek (Walker Basin)                                       | Extinct                  | G2                          | G1                            | G                        | Lindley et al. (2006) |
| Chowchilla River (mainstem)   | Extinct                  | G2                          | G1                            | G                        | Lindley et al. (2006) |
| Chowchilla River (Willow Cr., mainstem)                             | Extinct                  | G2                          | G1                            | G                        | Lindley et al. (2006) |

| Steelhead population                                       | Population status | Diversity category   |                        |                   | Reference             |
|--|-------------------|----------------------|------------------------|-------------------|-----------------------|
|  |                   | Ecological diversity | Life history diversity | Genetic Diversity |                       |
| Cosumnes River   | Extant            | G3                   | G1                     | G                 | Lindley et al. (2006) |
| Deer Creek (Kaweah R. basin)                               | Extinct           | G2                   | G1                     | G                 | Lindley et al. (2006) |
| Del Puerto Creek   | Extinct           | G3                   | G1                     | G                 | Lindley et al. (2006) |
| Fresno River   | Extinct           | G2                   | G1                     | G                 | Lindley et al. (2006) |
| Kaweah River (South Fork Tule R.)                          | Extinct           | G2                   | G1                     | G                 | Lindley et al. (2006) |
| Kaweah River (Tyler Cr.)                                   | Extinct           | G2                   | G1                     | G                 | Lindley et al. (2006) |
| Kaweah River (mainstem)                                    | Extinct           | G2                   | G1                     | G                 | Lindley et al. (2006) |
| Kern River (North Fork)                                    | Extinct           | G2                   | G1                     | G                 | Lindley et al. (2006) |
| Kern River (French Gulch, Little Poso Cr., Tillie Cr.)     | Extinct           | G2                   | G1                     | G                 | Lindley et al. (2006) |
| Kern River (Fay Cr., Kelso Cr., Marsh Cr.)                 | Extinct           | G2                   | G1                     | G                 | Lindley et al. (2006) |
| Kings River (South Fork)                                   | Extinct           | G2                   | G1                     | G                 | Lindley et al. (2006) |
| Kings River (Bitterwater Canyon, South Fork, mainstem)     | Extinct           | G2                   | G1                     | G                 | Lindley et al. (2006) |
| Lone Tree Creek  | Extinct           | G3                   | G1                     | G                 | Lindley et al. (2006) |
| Los Banos Creek  | Extinct           | G3                   | G1                     | G                 | Lindley et al. (2006) |
| Los Gatos Creek (mainstem)                                 | Extinct           | G3                   | G1                     | G                 | Lindley et al. (2006) |
| Los Gatos Creek (Rube Cr.)                                 | Extinct           | G3                   | G1                     | G                 | Lindley et al. (2006) |
| Marsh Creek  | Extant            | G3                   | G1                     | G                 | Lindley et al. (2006) |
| Merced River (Snow Cr.)                                    | Extinct           | G2                   | G1                     | G                 | Lindley et al. (2006) |
| Merced River (Middle Fork, Miami Cr., mainstem)            | Extinct           | G2                   | G1                     | G                 | Lindley et al. (2006) |
| Mokelumne River (Sutter Cr., mainstem)                     | Extant            | G3                   | G1                     | G                 | Lindley et al. (2006) |
| Mokelumne River (North Fork)                               | Extinct           | G3                   | G1                     | G                 | Lindley et al. (2006) |
| Panoche Creek  | Extinct           | G3                   | G1                     | G                 | Lindley et al. (2006) |
| Poso Creek   | Extinct           | G2                   | G1                     | G                 | Lindley et al. (2006) |
| Stanislaus River   | Extinct           | G2                   | G1                     | G                 | Lindley et al. (2006) |
| Tuolumne River   | Extinct           | G2                   | G1                     | G                 | Lindley et al. (2006) |
| Upper San Joaquin River                                    | Extinct           | G2                   | G1                     | G                 | Lindley et al. (2006) |
| <b>H. Willamette River Valley and Lower Columbia River</b> |                   |                      |                        |                   |                       |
| COLUMBIA RIVER   |                   |                      |                        |                   |                       |

| Steelhead population   | Population status                          | Diversity category   |                        |                   | Reference                          |
|--|--|----------------------|------------------------|-------------------|------------------------------------|
|  |  | Ecological diversity | Life history diversity | Genetic Diversity |                                    |
| Upper Cowlitz River (Homogenized remnant winter run - maintained as combined hatchery stock of Upper Cowlitz River, Cispus River and Tilton River populations ) (winter) | Remnant extant (extinct in native habitat) | H2                   | C1b                    | B3                | Myers et al. (2006)                |
| Cispus River (winter)  | Extinct (absorbed into other gene pool)    | H2                   | C1b                    | B3                | Myers et al. (2006)                |
| Tilton River (winter)  | Extinct (absorbed into other gene pool)    | H2                   | C1b                    | B3                | Myers et al. (2006)                |
| Lower Cowlitz River (winter)   | Extant                                     | H2                   | C1b                    | B3                | Myers et al. (2006)                |
| North Fork Toutle River (Green River) (winter)   | Extant                                     | H2                   | C1b                    | B3                | Myers et al. (2006)                |
| South Fork Toutle River (winter)   | Extant                                     | H2                   | C1b                    | B3                | Myers et al. (2006)                |
| Coweeman River (winter)  | Extant                                     | H2                   | C1b                    | B3                | Myers et al. (2006)                |
| Kalama River (winter)  | Extant                                     | H2                   | C1b                    | B3                | Myers et al. (2006)                |
| North Fork Lewis River (winter)  | Extant                                     | H2                   | C1b                    | B3                | Myers et al. (2006)                |
| East Fork Lewis River (winter)   | Extant                                     | H2                   | C1b                    | B3                | Myers et al. (2006)                |
| Scappoose Creek (winter)   | Extant                                     | H3                   | C1b                    | B3                | Chilcote (2001)                    |
| Salmon Creek (winter)  | Extinct                                    | H3                   | C1b                    | B3                | Myers et al. (2006)                |
| Clackamas River (winter)   | Extant                                     | H2                   | C1b                    | B3                | Myers et al. (2006)                |
| Sandy River (winter)   | Extant                                     | H2                   | C1b                    | B3                | Myers et al. (2006)                |
| Washougal River (winter)   | Extant                                     | H2                   | C1b                    | B3                | Myers et al. (2006)                |
| Lower Gorge tributaries (winter)   | Extant                                     | H3                   | C1b                    | B3                | Myers et al. (2006)                |
| Upper Gorge tributaries (winter)   | Extant                                     | H3                   | C1b                    | B3                | Myers et al. (2006)                |
| Hood River (winter)  | Extant                                     | H2                   | C1b                    | B3                | Myers et al. (2006)                |
| Fifteenmile Creek (winter)   | Extant                                     | H3                   | C1b                    | A1                | Interior Columbia Basin TRT (2003) |
| Kalama River (summer)  | Extinct                                    | H2                   | C1a                    | B3                | Myers et al. (2006)                |
| North Fork Lewis River (summer)  | Extant                                     | H2                   | C1a                    | B3                | Myers et al. (2006)                |
| East Fork Lewis River (summer)   | Extant                                     | H2                   | C1a                    | B3                | Myers et al. (2006)                |

| <b>Steelhead population</b>  | <b>Population status</b> | <b>Diversity category</b>   |                               |                          | <b>Reference</b>  |
|--|--------------------------|-----------------------------|-------------------------------|--------------------------|---|
|  |                          | <b>Ecological diversity</b> | <b>Life history diversity</b> | <b>Genetic Diversity</b> |   |
| Washougal River (summer)   | Extant                   | H2                          | C1a                           | B3                       | Myers et al. (2006)   |
| Wind River (summer)  | Extant                   | H2                          | C1a                           | B3                       | Myers et al. (2006)   |
| Hood River (summer)  | Extant                   | H2                          | C1a                           | B3                       | Myers et al. (2006)   |
| Big White Salmon River   | Extinct                  | H2                          | C1                            | A1                       | Interior Columbia Basin TRT (2003)  |
| Klickitat River  | Extant                   | H2                          | C1                            | A1                       | Interior Columbia Basin TRT (2003)  |
| <b>WILLAMETTE RIVER</b>  |                          |                             |                               |                          |   |
| Molalla River (winter)   | Extinct                  | H1b                         | B1                            | B4                       | Myers et al. (2006)   |
| North Santiam River (winter)   | Extant                   | H1b                         | B1                            | B4                       | Myers et al. (2006)   |
| South Santiam River (winter)   | Extant                   | H1b                         | B1                            | B4                       | Myers et al. (2006)   |
| Calapooia River (winter)   | Extinct                  | H1b                         | B1                            | B4                       | Myers et al. (2006)   |
| <b>I. Mid-Columbia River</b>   |                          |                             |                               |                          |   |
| Rock Creek   | Extant                   | I                           | A1a                           | A1                       | Interior Columbia Basin TRT (2003, 2005)  |
| Willow Creek   | Extant                   | I                           | A1a                           | A1                       | Interior Columbia Basin TRT (2003, 2005)  |
| Westside Deschutes River   | Extant                   | I1b                         | A1a                           | A1                       | Interior Columbia Basin TRT (2003)  |
| Eastside Deschutes River   | Extant                   | I1b                         | A1a                           | A1                       | Interior Columbia Basin TRT (2003)  |
| Crooked River  | Extinct                  | I1b                         | A1a                           | A1                       | Fulton (1970), Nielsen (1950), Nehlsen (1995), Interior Columbia Basin TRT (2005)                         |
| Metolius River/Squaw Creek/Upper Deschutes River (upstream to Big Falls) | Extinct                  | I1b                         | A1a                           | A1                       | Haas and Warren (1961), Fulton (1970), Nielsen (1950), Nehlsen (1995), Interior Columbia Basin TRT (2005) |
| Lower mainstem John Day River  | Extant                   | I1b                         | A1a                           | A1                       | Interior Columbia Basin TRT (2003)  |
| Upper mainstem John Day River  | Extant                   | I1b                         | A1a                           | A1                       | Interior Columbia Basin TRT (2003)  |
| North Fork John Day River  | Extant                   | I1b                         | A1a                           | A1                       | Interior Columbia Basin TRT (2003)  |
| Middle Fork John Day River   | Extant                   | I1b                         | A1a                           | A1                       | Interior Columbia Basin TRT (2003)  |
| South Fork John Day River  | Extant                   | I1b                         | A1a                           | A1                       | Interior Columbia Basin TRT (2003)  |
| Umatilla River   | Extant                   | I1b                         | A1a                           | A1                       | Interior Columbia Basin TRT (2003)  |
| Touchet River  | Extant                   | I1b                         | A1a                           | A1                       | Interior Columbia Basin TRT (2003)  |
| Walla Walla River  | Extant                   | I1b                         | A1a                           | A1                       | Interior Columbia Basin TRT (2003)  |
| <b>YAKIMA RIVER</b>  |                          |                             |                               |                          |   |
| Upper Yakima River   | Extant                   | I2a                         | A1a                           | A1                       | Interior Columbia Basin TRT (2003)  |
| Naches River   | Extant                   | I2b                         | A1a                           | A1                       | Interior Columbia Basin TRT (2003)  |

| Steelhead population  | Population status                          | Diversity category   |                        |                   | Reference   |
|---|--|----------------------|------------------------|-------------------|---|
|   |  | Ecological diversity | Life history diversity | Genetic Diversity |   |
| Satus Creek   | Extant                                     | I2b                  | A1a                    | A1                | Interior Columbia Basin TRT (2003, 2005)  |
| Toppenish Creek   | Extant                                     | I2b                  | A1a                    | A1                | Interior Columbia Basin TRT (2003, 2005)  |
| Swauk/Reecer creeks   | Extinct<br>(absorbed into other gene pool) | I2b                  | A1a                    | A1                | Hymer et al. (1992)   |
| Ahtanum Creek   | Extinct<br>(absorbed into other gene pool) | I2b                  | A1a                    | A1                | Fulton (1970), Hymer et al. (1992)  |
| <b>J. Upper-Columbia River</b>  |  |                      |                        |                   |   |
| Mainstem Columbia River from Priest Rapids to Kettle Falls (currently confined to Hanford Reach)            | Extant                                     | J3                   | A1                     | A2                | Hymer et al. (1992)   |
| Crab Creek  | Extant                                     | J4                   | A1                     | A2                | Interior Columbia Basin TRT (2005)  |
| Wenatchee River and lower tributaries below Lake Wenatchee (Nason/Icicle/Peshastin/Mission creeks)          | Extant                                     | J1a                  | A1a                    | A2                | WDF et al. (1993), Hymer et al. (1992)  |
| Chiwawa River   | Extant                                     | J1b                  | A1a                    | A2                | WDF et al. (1993), Hymer et al. (1992)  |
| White/Little Wenatchee rivers   | Extant                                     | J1a                  | A1a                    | A2                | WDF et al. (1993), Hymer et al. (1992)  |
| Entiat River  | Extant                                     | J1b                  | A1a                    | A2                | Interior Columbia Basin TRT (2003)  |
| Mainstem Methow River below Twisp/Twisp River/Gold/Beaver Creeks  | Extant                                     | J1b                  | A1a                    | A2                | Craig and Suomela (1941), Fulton (1970), Hymer et al. (1992), WDF et al. (1993) |
| Upper mainstem Methow River, Early Winters/Lost creeks  | Extant                                     | J1b                  | A1a                    | A2                | WDF et al. (1993), Fulton (1970), Hymer et al. (1992)                           |
| Chewuch River   | Extant                                     | J1b                  | A1a                    | A2                | WDF et al. (1993), Fulton (1970), Hymer et al. (1992)                           |
| Mainstem Okanogan River below Lake Osoyoos, Salmon/Omak creeks  | Extant                                     | J2b                  | A1a                    | A2                | Fulton (1970), Hymer et al. (1992)  |
| Mainstem Okanogan River and tributaries above Lake Osoyoos to Lake Okanogan outlet (Vaseux/Inkaneep creeks) | Extant                                     | J2a                  | A1a                    | A2                | Hymer et al. (1992)   |
| Tributaries to Lake Okanogan  | Extinct                                    | J2a                  | A1a                    | A2                | Hymer et al. (1992); Slaney et al. (1996)                                       |
| Lower Sanpoil River and tributaries   | Extinct                                    | J4                   | A1a                    | A2                | Scholz et al. (1985)  |
| Upper Sanpoil River and tributaries   | Extinct                                    | J4                   | A1a                    | A2                | Scholz et al. (1985)  |

| Steelhead population  | Population status                          | Diversity category   |                        |                   | Reference  |
|---|--|----------------------|------------------------|-------------------|--|
|   |  | Ecological diversity | Life history diversity | Genetic Diversity |  |
| West Fork Sanpoil River   | Extinct                                    | J4                   | A1a                    | A2                | Scholz et al. (1985)   |
| Lower Spokane River   | Extinct                                    | J5                   | A1a                    | A2                | Gilbert and Evermann (1894), Ray (1936), Bryant and Parkhurst (1950), Fulton (1970), Scholz et al. (1985), Nehlsen et al. (1991) |
| Little Spokane River  | Extinct                                    | J5                   | A1a                    | A2                | Scholz et al. (1985)   |
| Lower Colville River (lower 6 km)   | Extinct                                    | J5                   | A1a                    | A2                |  |
| Lower Kettle River  | Extinct                                    | J4                   | A1a                    | A2                |  |
| <b>K. Lower Snake River</b>   |  |                      |                        |                   |  |
| Tucannon River  | Extant                                     | K2b                  | A1a                    | A3                | Interior Columbia Basin TRT (2003)   |
| Asotin Creek  | Extant                                     | K2b                  | A1a                    | A3                | Interior Columbia Basin TRT (2003)   |
| Lower Snake River mainstem  | Extant                                     | K4                   | A1a                    | A3                | Howell et al. (1985)   |
| Hell's Canyon   | Extant                                     | K2b                  | A1a                    | A3                | Interior Columbia Basin TRT (2003)   |
| <b>CLEARWATER RIVER</b>   |  |                      |                        |                   |  |
| Lower Clearwater River  | Extant                                     | K1                   | A1a                    | A3                | Interior Columbia Basin TRT (2003)   |
| South Fork Clearwater River   | Extant                                     | K1                   | A1b                    | A3                | Interior Columbia Basin TRT (2003)   |
| North Fork Clearwater River (only produced at Dworshak and Clearwater Hatcheries) | Remnant extant (extinct in native habitat) | K1                   | A1b                    | A4                | Interior Columbia Basin TRT (2003)   |
| Lolo Creek  | Extant                                     | K1                   | A1a                    | A3                | Interior Columbia Basin TRT (2003)   |
| Lochsa River  | Extant                                     | K1                   | A1                     | A3                | Interior Columbia Basin TRT (2003)   |
| Selway River  | Extant                                     | K1                   | A1b                    | A3                | Interior Columbia Basin TRT (2003)   |
| <b>GRANDE RONDE RIVER</b>   |  |                      |                        |                   |  |
| Lower Grande Ronde River  | Extant                                     | K2b                  | A1a                    | A3                | Interior Columbia Basin TRT (2003)   |
| Joseph Creek  | Extant                                     | K2b                  | A1a                    | A3                | Interior Columbia Basin TRT (2003)   |
| Wallowa River   | Extant                                     | K2b                  | A1a                    | A3                | Interior Columbia Basin TRT (2003)   |
| Upper Grande Ronde River  | Extant                                     | K2b                  | A1a                    | A3                | Interior Columbia Basin TRT (2003)   |
| <b>SALMON RIVER</b>   |  |                      |                        |                   |  |
| Little Salmon and Lower mainstem Salmon rivers                                    | Extant                                     | K3b                  | A1a                    | A3                | Interior Columbia Basin TRT (2003)   |
| South Fork Salmon River   | Extant                                     | K3b                  | A1b                    | A3                | Interior Columbia Basin TRT (2003)   |

| <b>Steelhead population</b>  | <b>Population status</b> | <b>Diversity category</b>   |                               |                          | <b>Reference</b>  |
|--|--------------------------|-----------------------------|-------------------------------|--------------------------|---|
|  |                          | <b>Ecological diversity</b> | <b>Life history diversity</b> | <b>Genetic Diversity</b> |   |
| Secesh River   | Extant                   | K3b                         | A1b                           | A3                       | Interior Columbia Basin TRT (2003)  |
| Chamberlain Creek  | Extant                   | K3b                         | A1a                           | A3                       | Interior Columbia Basin TRT (2003)  |
| Lower Middle Fork Salmon River   | Extant                   | K3b                         | A1b                           | A3                       | Interior Columbia Basin TRT (2003)  |
| Upper Middle Fork Salmon River   | Extant                   | K3b                         | A1b                           | A3                       | Interior Columbia Basin TRT (2003)  |
| Panther Creek  | Extant                   | K3b                         | A1                            | A3                       | Interior Columbia Basin TRT (2003)  |
| North Fork Salmon River  | Extant                   | K3b                         | A1a                           | A3                       | Interior Columbia Basin TRT (2003)  |
| Lemhi River  | Extant                   | K3b                         | A1a                           | A3                       | Interior Columbia Basin TRT (2003)  |
| Pahsimeroi River   | Extant                   | K3b                         | A1a                           | A3                       | Interior Columbia Basin TRT (2003)  |
| East Fork Salmon River   | Extant                   | K3b                         | A1                            | A3                       | Interior Columbia Basin TRT (2003)  |
| Upper mainstem Salmon River  | Extant                   | K3b                         | A1a                           | A3                       | Interior Columbia Basin TRT (2003)  |
| <b>IMNAHA RIVER</b>  |                          |                             |                               |                          |   |
| Imnaha River   | Extant                   | K2b                         | A1a                           | A3                       | Interior Columbia Basin TRT (2003)  |
| <b>ABOVE HELL'S CANYON</b>   |                          |                             |                               |                          |   |
| Pine Creek   | Extinct                  | K2b                         | A1                            | A3                       | Parkhurst (1950b), Fulton (1970)  |
| Eagle Creek (Powder River)   | Extinct                  | K2b                         | A1                            | A3                       | Parkhurst (1950b), Brownell et al. (2001)   |
| Powder River   | Extinct                  | K2b                         | A1                            | A3                       | Parkhurst (1950b), Fulton (1970), Nehlsen et al. (1991), Interior Columbia Basin TRT (2005) |
| Burnt River  | Extinct                  | K2b                         | A1                            | A3                       | Parkhurst (1950b), Fulton (1970), Nehlsen et al. (1991), Interior Columbia Basin TRT (2005) |
| <b>L. Upper Snake River</b>  |                          |                             |                               |                          |   |
| Indian/Wildhorse creeks  | Extinct                  | L3                          | A1                            | A3                       | Parkhurst (1950b), Fulton (1970)  |
| Lower tributaries Weiser River (Mann, Crane, Sage, Keithley creeks)                        | Extinct                  | L1b                         | A1                            | A3                       | Evermann (1896), Ray (1936), Parkhurst (1950b), Fulton (1970), Nehlsen et al. (1991)        |
| Middle Weiser River (Pine, Rush, Johnson, Hornet creeks, Little Weiser River, Middle Fork) | Extinct                  | L1b                         | A1                            | A3                       | Evermann (1896), Ray (1936), Parkhurst (1950b), Fulton (1970), Nehlsen et al. (1991)        |
| Upper mainstem Weiser River and upper tributaries (East Fork, West Fork)                   | Extinct                  | L1b                         | A1                            | A3                       | Evermann (1896), Ray (1936), Parkhurst (1950b), Fulton (1970), Nehlsen et al. (1991)        |
| Payette River lower tributaries (below forks)  | Extinct                  | L1b                         | A1                            | A3                       | Evermann (1896), Ray (1936), Parkhurst (1950b), Fulton (1970), Nehlsen et al. (1991)        |
| North Fork Payette River and tributaries   | Extinct                  | L1a                         | A1                            | A3                       | Evermann (1896), Ray (1936), Parkhurst (1950b), Fulton (1970), Nehlsen et al. (1991)        |

| Steelhead population   | Population status | Diversity category   |                        |                   | Reference  |
|--|-------------------|----------------------|------------------------|-------------------|--|
|  |                   | Ecological diversity | Life history diversity | Genetic Diversity |  |
| Middle Fork Payette River and tributaries  | Extinct           | L1b                  | A1                     | A3                | Ray (1936), Parkhurst (1950b), Fulton (1970), Nehlsen et al. (1991)  |
| Lower South Fork Payette River   | Extinct           | L1b                  | A1                     | A3                | Evermann (1896), Ray (1936), Parkhurst (1950b), Fulton (1970), Nehlsen et al. (1991)                                     |
| Upper mainstem Malheur River   | Extinct           | L2                   | A1                     | A3                | Van Duzen, (1903), Fulton (1970), Parkhurst (1950c), Nehlsen et al. (1991)   |
| North Fork Malheur River and tributaries   | Extinct           | L2                   | A1                     | A3                | Van Duzen, (1903), Fulton (1970), Parkhurst (1950c), Nehlsen et al. (1991)   |
| Willow/Bully creeks (Malheur River)  | Extinct           | L2                   | A1                     | A3                | Van Duzen, (1903), Fulton (1970), Parkhurst (1950c), Nehlsen et al. (1991)   |
| Mores Creek (Boise River)  | Extinct           | L1b                  | A1                     | A3                | Gilbert and Evermann (1894), Parkhurst (1950c), Fulton (1970), Nehlsen et al. (1991)                                     |
| South Fork Boise River   | Extinct           | L1b                  | A1                     | A3                | Gilbert and Evermann (1894), Parkhurst (1950c), Fulton (1970), Nehlsen et al. (1991)                                     |
| Middle Fork Boise River  | Extinct           | L1b                  | A1                     | A3                | Gilbert and Evermann (1894), Parkhurst (1950c), Fulton (1970), Nehlsen et al. (1991)                                     |
| North Fork Boise River   | Extinct           | L1b                  | A1                     | A3                | Gilbert and Evermann (1894), Parkhurst (1950c), Fulton (1970), Nehlsen et al. (1991)                                     |
| Lower Owyhee River   | Extinct           | L2                   | A1                     | A3                | Gilbert and Evermann (1894), Parkhurst (1950c), Fulton (1970), Nehlsen et al. (1991), Interior Columbia Basin TRT (2005) |
| Upper Owyhee River   | Extinct           | L2                   | A1                     | A3                | Gilbert and Evermann (1894), Parkhurst (1950c), Fulton (1970), Nehlsen et al. (1991), Interior Columbia Basin TRT (2005) |
| Small tributaries between Owyhee and Bruneau rivers (Sucker/Jump/Sinker/Castle/Birch/ Shoo-Fly creeks) | Extinct           | L2                   | A1                     | A3                | Parkhurst (1950c)  |
| Mainstem Bruneau River   | Extinct           | L2                   | A1                     | A3                | Gilbert and Evermann (1894), Parkhurst (1950c), Fulton (1970), Nehlsen et al. (1991)                                     |
| Upper tributaries Bruneau River  | Extinct           | L2                   | A1                     | A3                | Gilbert and Evermann (1894), Parkhurst (1950c), Fulton (1970), Nehlsen et al. (1991)                                     |
| Small tributaries between Bruneau and Malad (Big Wood) rivers (Canyon Creek)                           | Extinct           | L2                   | A1                     | A3                | Parkhurst (1950c), Fulton (1970)   |
| Salmon Falls Creek   | Extinct           | L3                   | A1                     | A3                | Gilbert and Evermann (1894), Parkhurst (1950c), Fulton (1970)  |



|   |                          | Diversity category          |                               |                          |  |
|---|--------------------------|-----------------------------|-------------------------------|--------------------------|--|
| <b>Steelhead population</b>   | <b>Population status</b> | <b>Ecological diversity</b> | <b>Life history diversity</b> | <b>Genetic Diversity</b> | <b>Reference</b>   |
| Rock Creek  | Extinct                  | L3                          | A1                            | A3                       | Parkhurst (1950c), Fulton (1970)   |
| <b>M. Columbia River Headwaters</b>   |                          |                             |                               |                          |  |
| Pend Oreille River (below Albeni Falls)   | Extinct                  | M2                          | A1                            | A2                       | Gilbert and Evermann (1894), Bryant and Parkhurst (1950), Fulton (1970), Scholz et al. (1985), Nehlsen et al. (1991), Interior Columbia Basin TRT (2005) |
| Kootenai River (below Bonnington Falls)   | Extinct                  | M1a                         | A1                            | A5                       | Behnke (1992), Interior Columbia Basin TRT (2005)  |
| Slocan River  | Extinct                  | M1a                         | A1                            | A5                       | Behnke (1992)  |
| Mainstem Columbia River and tributaries from above Kettle Falls to Upper Arrow Lake                   | Extinct                  | M3a                         | A1                            | A5                       | Behnke (1992), Fulton (1970)   |
| Mainstem Columbia River and tributaries from above Upper Arrow Lake to confluence with Canoe River    | Extinct                  | M3a                         | A1                            | A5                       | Behnke (1992)  |
| Canoe River   | Extinct                  | M3a                         | A1                            | A5                       | Behnke (1992)  |
| Mainstem Columbia River and tributaries above confluence with Canoe River (Spillimacheen River, etc.) | Extinct                  | M3a                         | A1                            | A5                       | Behnke (1992)  |

Appendix Table 2. Proposed historic demographically independent Chinook salmon populations sorted by major (level-I) ecological region. Each population is characterized according to its perceived current population status and historic biodiversity. Ecological, life history and genetic diversity are characterized using the hierarchical diversity matrix (see Appendix S1).

| Chinook salmon population            | Population status | Diversity category   |                        |                   | Reference   |
|--------------------------------------|-------------------|----------------------|------------------------|-------------------|---|
|                                      |                   | Ecological diversity | Life history diversity | Genetic Diversity |   |
| <b>A. Georgia Basin</b>              |                   |                      |                        |                   |   |
| STRAIT OF GEORGIA (Mainland)         |                   |                      |                        |                   |   |
| Cheakamus / Mamquam rivers           | Extant            | A2b                  | Da                     | A2                | Hancock and Marshall (1986)                                       |
| Squamish River, Ashlu Creek          | Extant            | A2b                  | Da                     | A2                | Hancock and Marshall (1986)                                       |
| Kilte River                          | Extant            | A2b                  | Da                     | A2                | Hancock and Marshall (1985c)                                      |
| Brem River                           | Extant            | A2b                  | Da                     | A2                | Hancock and Marshall (1985c)                                      |
| Toba River                           | Extant            | A2b                  | Da                     | A2                | Hancock and Marshall (1985c)                                      |
| Tzoonie River                        | Extinct           | A2b                  | Da                     | A2                | Marshall et al. (1976a), Brownell et al. (2001)                   |
| Capilano River                       | Extant            | A2b                  | Da                     | A2                | Hancock and Marshall (1986), DFO (1999)                           |
| STRAIT OF GEORGIA (Vancouver Island) |                   |                      |                        |                   |   |
| Little Qualicum River                | Extant            | A2                   | Da                     | A2                | Brown et al. (1977)   |
| Puntledge River (summer)             | Extant            | A2                   | Db                     | A2                | Brown et al. (1977)   |
| Puntledge River (fall)               | Extant            | A2                   | Da                     | A2                | Brown et al. (1977)   |
| Campbell / Quinsam rivers            | Extant            | A1                   | Da                     | A2                | Marshall et al. (1977a)   |
| Nanaimo River (early)                | Extant            | A1                   | Db                     | A2                | Marshall et al. (1976b)   |
| Nanaimo River (late)                 | Extant            | A1                   | Da                     | A2                | Marshall et al. (1976b)   |
| Cowichan River (spring)              | Extinct           | A1                   | Db                     | A2                | Ricker (1972)   |
| Cowichan / Koksilah rivers (fall)    | Extant            | A1                   | Da                     | A2                | Marshall et al. (1976b)   |
| LOWER FRASER RIVER                   |                   |                      |                        |                   |   |
| Chilliwack River (fall, white flesh) | Extant            | A2                   | Da                     | A1                | Marshall et al. (1980b), DFO (1999), Candy et al. (2002)          |
| Coquitlam River (fall)               | Extinct           | A2a                  | Da                     | A1                | Candy et al. (2002)   |
| Stave River (fall)                   | Extinct           | A2a                  | Da                     | A1                | Candy et al. (2002)   |
| Pitt River (fall)                    | Extant            | A2a                  | Da                     | A1                | Hancock and Marshall (1985a), DFO (1999)                          |
| Alouette River (fall)                | Extinct           | A2a                  | Da                     | A1                | Conlin et al. (2000), Brownell et al. (2001), Candy et al. (2002) |
| Chehalis River (fall, white flesh)   | Extinct           | A2a                  | Da                     | A1                | Hancock and Marshall (1985b), Candy et al. (2002)                 |

| Chinook salmon population               | Population status | Diversity category   |                        |                   | Reference   |
|---|-------------------|----------------------|------------------------|-------------------|---|
|   |                   | Ecological diversity | Life history diversity | Genetic Diversity |   |
| Harrison River (fall, white flesh)      | Extant            | A2a                  | Da                     | A1                | Hancock and Marshall (1985b), Candy et al. (2002)             |
| Maria Slough (summer, red flesh)        | Extant            | A1                   | Db                     | A1                | Hancock and Marshall (1985b), DFO (1999), Candy et al. (2002) |
| Birkenhead River (spring, red flesh)    | Extant            | A2                   | Db                     | A1                | Brown et al. (1979a), Candy et al. (2002)                     |
| PUGET SOUND                             |                   |                      |                        |                   |   |
| North Fork Nooksack River (spring)      | Extant            | A2a                  | Db                     | B1                | Ruckelshaus et al. (2006)                                     |
| South Fork Nooksack River (spring)      | Extant            | A2a                  | Db                     | B1                | Ruckelshaus et al. (2006)                                     |
| Nooksack River (fall)                   | Extinct           | A2a                  | Da                     | B1                | Williams et al. (1975), WDF et al. (1993)                     |
| Lower Skagit River (fall)               | Extant            | A2a                  | Da                     | B2a               | Ruckelshaus et al. (2006)                                     |
| Upper Skagit River (summer)             | Extant            | A2a                  | Da                     | B2a               | Ruckelshaus et al. (2006)                                     |
| Lower Sauk River (summer)               | Extant            | A2a                  | Da                     | B2a               | Ruckelshaus et al. (2006)                                     |
| Upper Sauk River (spring)               | Extant            | A2a                  | Db                     | B2a               | Ruckelshaus et al. (2006)                                     |
| Suiattle River (spring)                 | Extant            | A2a                  | Db                     | B2a               | Ruckelshaus et al. (2006)                                     |
| Upper Cascade River (spring)            | Extant            | A2a                  | Db                     | B2a               | Ruckelshaus et al. (2006)                                     |
| North Fork Stillaguamish River (summer) | Extant            | A2a                  | Db                     | B2a               | Ruckelshaus et al. (2006)                                     |
| South Fork Stillaguamish River (fall)   | Extant            | A2a                  | Da                     | B2a               | Ruckelshaus et al. (2006)                                     |
| Stillaguamish River (spring)            | Extinct           | A2a                  | Db                     | B2                | Nehlsen et al. (1991), WDF et al. (1993)                      |
| Skykomish River                         | Extant            | A2a                  | D                      | B2a               | Ruckelshaus et al. (2006)                                     |
| Snoqualmie River                        | Extant            | A2a                  | D                      | B2a               | Ruckelshaus et al. (2006)                                     |
| Snohomish River (spring)                | Extinct           | A2a                  | Db                     | B2                | Nehlsen et al. (1991), WDF et al. (1993)                      |
| Cedar River                             | Extant            | A2a                  | D                      | B2a               | Ruckelshaus et al. (2006)                                     |
| Sammamish River                         | Extant            | A1a                  | D                      | B2a               | Ruckelshaus et al. (2006)                                     |
| Duwamish/Green rivers                   | Extant            | A2a                  | D                      | B2a               | Ruckelshaus et al. (2006)                                     |
| Duwamish/Green rivers (spring)          | Extinct           | A2a                  | Db                     | B2                | Nehlsen et al. (1991)   |
| Puyallup River                          | Extant            | A2a                  | D                      | B2b               | Ruckelshaus et al. (2006)                                     |
| White River                             | Extant            | A2a                  | D                      | B2b               | Ruckelshaus et al. (2006)                                     |
| Puyallup River (spring)                 | Extinct           | A2a                  | Db                     | B2                | Williams et al. (1975), Nehlsen et al. (1991)                 |
| Nisqually River                         | Extant            | A2a                  | D                      | B2b               | Ruckelshaus et al. (2006)                                     |
| Nisqually River (spring/summer)         | Extinct           | A2a                  | Db                     | B2                | Williams et al. (1975), Nehlsen et al. (1991), ONRC (1995)    |
| HOOD CANAL                              |                   |                      |                        |                   |   |

| <b>Chinook salmon population</b>  | <b>Population status</b> | <b>Diversity category</b>   |                               |                          | <b>Reference</b>   |
|---|--------------------------|-----------------------------|-------------------------------|--------------------------|--|
|   |                          | <b>Ecological diversity</b> | <b>Life history diversity</b> | <b>Genetic Diversity</b> |  |
| Skokomish River   | Extant                   | A1a                         | D                             | B2b                      | Ruckelshaus et al. (2006)                                  |
| Skokomish River (spring/summer)   | Extinct                  | A2a                         | Db                            | B                        | Deschamps (1954), Nehlsen et al. (1991), WDF et al. (1993) |
| Mid-Hood Canal Rivers (Hamma Hamma/Duckabush/ Dosewallips rivers) (fall)              | Extant                   | A2b                         | Da                            | B2b                      | Ruckelshaus et al. (2006)                                  |
| Dosewallips/Duckabush rivers (spring)   | Extinct                  | A2b                         | Db                            | B                        | Williams et al. (1975), Nehlsen et al. (1991), ONRC (1995) |
| <b>STRAIT OF JUAN DE FUCA</b>   |                          |                             |                               |                          |  |
| Dungeness River   | Extant                   | A2b                         | D                             | B2b                      | Ruckelshaus et al. (2006)                                  |
| Elwha River   | Extant                   | A2b                         | Da                            | B3                       | Ruckelshaus et al. (2006)                                  |
| Elwha River (spring)  | Extinct                  | A2b                         | Db                            | B3                       | Nehlsen et al. (1991), WDF et al. (1993)                   |
| <b>B. Coastal Rainforest</b>  |                          |                             |                               |                          |  |
| <b>WEST COAST VANCOUVER ISLAND</b>  |                          |                             |                               |                          |  |
| San Juan / Gordan rivers  | Extant                   | B1b                         | Ea                            | A3                       | Marshall et al. (1977b)                                    |
| Nitinat/Klanawa rivers  | Extant                   | B1a                         | Ea                            | A3                       | Brown et al. (1979b), Teel et al. (2000)                   |
| Barkley Sound (Sarita/Franklin/ Nahmint/Henderson/Effingham/ Torquart rivers)         | Extant                   | B1b                         | Ea                            | A3                       | Brown et al. (1979b)                                       |
| Somass River  | Extant                   | B2a                         | Ea                            | A3                       | Brown et al. (1979b), Teel et al. (2000)                   |
| Tofino Inlet (lower Kennedy River, Tofino/Tranquil creeks)                            | Extant                   | B1b                         | Ea                            | A3                       | Brown et al. (1979c)                                       |
| Mid-Clayoquot Sound (Bedwell/Cypre/ Moyeha rivers)                                    | Extant                   | B1b                         | Ea                            | A3                       | Brown et al. (1979c)                                       |
| Upper Clayoquot Sound (Megin/ Sydney/Ice rivers, Watta Creek)                         | Extant                   | B1b                         | Ea                            | A3                       | Brown et al. (1979c)                                       |
| Muchalat Inlet (Burman/Gold/ Muchalat/Oktwanch/Jacklah/Mooyah rivers, Kleeptee Creek) | Extant                   | B2b                         | Ea                            | A3                       | Brown et al. (1979e)                                       |
| Tlupani Inlet (Conuma/Tlupana/ Sucwoa rivers, Deserted/Canton creeks)                 | Extant                   | B1b                         | Ea                            | A3                       | Brown et al. (1979e), Teel et al. (2000)                   |
| Tahsis Inlet (Leiner/Tsowwin/Tahsis rivers)   | Extant                   | B1b                         | Ea                            | A3                       | Brown et al. (1979e)                                       |

| Chinook salmon population   | Population status                          | Diversity category   |                        |                   | Reference                                |
|---|--|----------------------|------------------------|-------------------|--|
|   |  | Ecological diversity | Life history diversity | Genetic Diversity |  |
| Esperanza Inlet (Zeballos/Little Zeballos/Park rivers, Mamat/Espinoza creeks)                           | Extant                                     | B1b                  | Ea                     | A3                | Brown et al. (1979e)                     |
| Kyuquot Sound (Artlish/Kaouk/Tahsish/Kashutl/Kauwinch rivers, Narrowgut/Amai creeks)                    | Extant                                     | B1b                  | Ea                     | A3                | Marshall et al. (1980a)                  |
| Checleset Bay (Malksope/Quoukinsh/Power/Nasparti/Battle rivers, McKay Cove/Chamiss/Clanninick creeks)   | Extant                                     | B1b                  | Ea                     | A3                | Marshall et al. (1980a)                  |
| Cape Cook to Cape Scott (Marble/Klaskish/San Josef rivers, Mahatta/Cayaghle/Utluh/Colonial/East creeks) | Extant                                     | B1b                  | Ea                     | A3                | Brown et al. (1979d)                     |
| OLYMPIC PENINSULA   |  |                      |                        |                   |  |
| Pysht River (fall)  | Extinct                                    | B1b                  | Ea                     | C1a               | Nehlsen et al. (1991)                    |
| Hoko River (fall)   | Extant                                     | B1b                  | Ea                     | C1a               | WDF et al. (1993)                        |
|   | Remnant extant (extinct in native habitat) |                      |                        |                   |  |
| Sooes River (fall)  |  | B1b                  | Ea                     | C1a               | WDF et al. (1993)                        |
| Ozette River (fall)   | Extinct                                    | B1a                  | Ea                     | C1a               | Nehlsen et al. (1991), WDF et al. (1993) |
| Sol Duc River (spring)  | Extant                                     | B2a                  | Eb                     | C1a               | WDF et al. (1993)                        |
| Sol Duc River (summer)  | Extant                                     | B2a                  | Eb                     | C1a               | WDF et al. (1993)                        |
| Sol Duc River (fall)  | Extant                                     | B2a                  | Ea                     | C1a               | WDF et al. (1993)                        |
| Quillayute/Bogachiel rivers (summer)  | Extant                                     | B2b                  | Eb                     | C1a               | WDF et al. (1993)                        |
| Quillayute/Bogachiel rivers (fall)  | Extant                                     | B2b                  | Ea                     | C1a               | WDF et al. (1993)                        |
| Calawah River (summer)  | Extant                                     | B2b                  | Eb                     | C1a               | WDF et al. (1993)                        |
| Calawah River (fall)  | Extant                                     | B2b                  | Ea                     | C1a               | WDF et al. (1993)                        |
| Dickey River (fall)   | Extant                                     | B1a                  | Ea                     | C1a               | WDF et al. (1993)                        |
| Hoh River (spring/summer)   | Extant                                     | B2b                  | Eb                     | C1a               | WDF et al. (1993)                        |
| Hoh River (fall)  | Extant                                     | B2b                  | Ea                     | C1a               | WDF et al. (1993)                        |
| Queets River (spring/summer)  | Extant                                     | B2b                  | Eb                     | C1a               | WDF et al. (1993)                        |
| Queets River (fall)   | Extant                                     | B2b                  | Ea                     | C1a               | WDF et al. (1993)                        |
| Clearwater River (spring/summer)  | Extant                                     | B1b                  | Eb                     | C1a               |  |

| Chinook salmon population   | Population status | Diversity category   |                        |                   | Reference  |
|---|-------------------|----------------------|------------------------|-------------------|--|
|   |                   | Ecological diversity | Life history diversity | Genetic Diversity |  |
| Clearwater River (fall)   | Extant            | B1b                  | Ea                     | C1a               |  |
| Quinault River (spring/summer)                                    | Extant            | B2a                  | Eb                     | C1a               | WDF et al. (1993)  |
| Quinault River (fall)   | Extant            | B2a                  | Ea                     | C1a               | WDF et al. (1993)  |
| <b>C. Northern Coastal (Southwest Washington to Cape Blanco)</b>  |                   |                      |                        |                   |  |
| Humptulips River (fall)   | Extant            | C2b                  | Ea                     | C1b               | Myers et al. (1998)  |
| Hoquiam River (fall)  | Extant            | C2b                  | Ea                     | C1b               | Myers et al. (1998)  |
| Wishkah River (fall)  | Extant            | C2b                  | Ea                     | C1b               | Myers et al. (1998)  |
| Upper mainstem Chehalis River (spring)                            | Extant            | C2a                  | Eb                     | C1b               | WDF et al. (1993)  |
| Wynoochee River (spring)  | Extinct           | C2a                  | Eb                     | C1a               | WDF et al. (1993), ONRC (1995)   |
| Wynoochee River (fall)  | Extant            | C2a                  | Ea                     | C1b               | WDF et al. (1993)  |
| Skookumchuck River (spring)                                       | Extant            | C2a                  | Eb                     | C1b               | WDF et al. (1993)  |
| Newaukum River (spring)   | Extant            | C2a                  | Ea                     | C1b               | WDF et al. (1993)  |
| Satsop River (summer)   | Extant            | C2a                  | Eb                     | C1b               | WDF et al. (1993)  |
| Satsop River (fall)   | Extant            | C2a                  | Ea                     | C1b               | WDF et al. (1993)  |
| Mainstem Chehalis River (fall)                                    | Extant            | C2a                  | Ea                     | C1b               | WDF et al. (1993)  |
| Willapa Bay (North/Willapa/Palix/<br>Nemah/Naselle rivers) (fall) | Extant            | C2b                  | Ea                     | C1b               | WDF et al. (1993)  |
| Fall River (North River) (early-fall)                             | Extant            | C2b                  | Ea                     | C1b               | WDF et al. (1993)  |
| <b>COLUMBIA RIVER</b>   |                   |                      |                        |                   |  |
| Youngs Bay (fall)   | Extinct           | C1                   | Da                     | G2                | Myers et al. (2006)  |
| Grays River (fall)  | Extant            | C1                   | Da                     | G2                | Myers et al. (2006)  |
| Big Creek (fall)  | Extinct           | C1                   | Da                     | G2                | Myers et al. (2006)  |
| Elochoman River (fall)  | Extinct           | C1                   | Da                     | G2                | Myers et al. (2006)  |
| Clatskanie River (fall)   | Extinct           | C1                   | Da                     | G2                | Myers et al. (2006)  |
| Mill Creek (fall)   | Extinct           | C1                   | Da                     | G2                | Myers et al. (2006)  |
| <b>OREGON</b>   |                   |                      |                        |                   |  |
| Nehalem River (summer)  | Extant            | C2b                  | Eb                     | C2a               | Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998)                       |
| Mainstem Nehalem/North Fork<br>Nehalem/Salmonberry rivers (fall)  | Extant            | C2b                  | Ea                     | C2a               | Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998), Jacobs et al. (2000) |

| Chinook salmon population                           | Population status | Diversity category   |                        |                   | Reference  |
|---|-------------------|----------------------|------------------------|-------------------|--|
|   |                   | Ecological diversity | Life history diversity | Genetic Diversity |  |
| Kilchis/Wilson/Trask rivers (spring)                | Extant            | C2b                  | Eb                     | C2a               | Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998)                       |
| Miami/Kilchis/Wilson/Trask/ Tillamook rivers (fall) | Extant            | C2b                  | Ea                     | C2a               | Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998), Jacobs et al. (2000) |
| Nestucca River (spring)                             | Extant            | C2b                  | Eb                     | C2a               | Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998)                       |
| Nestucca/Little Nestucca rivers (fall)              | Extant            | C2b                  | Ea                     | C2a               | Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998), Jacobs et al. (2000) |
| Siletz River (spring)                               | Extant            | C2b                  | Eb                     | C2b               | Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998)                       |
| Siletz River (fall)                                 | Extant            | C2b                  | Ea                     | C2b               | Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998), Jacobs et al. (2000) |
| Yaquina River (fall)                                | Extant            | C2b                  | Ea                     | C2b               | Kostow (1995), Myers et al. (1998), Jacobs et al. (2000)                             |
| Alsea River (spring)                                | Extant            | C2b                  | Eb                     | C2b               | Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998)                       |
| Alsea River (fall)                                  | Extant            | C2b                  | Ea                     | C2b               | Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998), Jacobs et al. (2000) |
| Siuslaw River (spring)                              | Extant            | C2b                  | Eb                     | C2b               | Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998)                       |
| Siuslaw River (fall)                                | Extant            | C2b                  | Ea                     | C2b               | Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998), Jacobs et al. (2000) |
| Smith River (fall)                                  | Extant            | C2b                  | Ea                     | C2c               | Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998)                       |
| Lower mainstem Umpqua River (fall)                  | Extant            | C2a                  | Ea                     | C2c               | Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998)                       |
| North Umpqua River (spring)                         | Extant            | C2a                  | Eb                     | C2c               | Van Dusen (1903), Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998)     |
| North Umpqua River (fall)                           | Extant            | C2a                  | Ea                     | C2c               | Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998)                       |
| South Umpqua River (spring)                         | Extant            | C2a                  | Eb                     | C2c               | Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998)                       |
| South Umpqua River (fall)                           | Extant            | C2a                  | Ea                     | C2c               | Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998)                       |
| Coos/Millicoma rivers (fall)                        | Extant            | C2b                  | Ea                     | C2b               | Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998), Jacobs et al. (2000) |

| Chinook salmon population  | Population status | Diversity category   |                        |                   | Reference  |
|--|-------------------|----------------------|------------------------|-------------------|--|
|  |                   | Ecological diversity | Life history diversity | Genetic Diversity |  |
| Coquille River (spring)  | Extant            | C4                   | Eb                     | C2b               | Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998)                       |
| Coquille River except South Fork (fall)  | Extant            | C4                   | Ea                     | C2b               | Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998), Jacobs et al. (2000) |
| South Fork Coquille River (fall)   | Extant            | C4                   | Ea                     | C2b               | Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998)                       |
| Floras Creek/Sixes/Elk rivers (fall)   | Extant            | C4                   | Ea                     | C2d               | Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998), Jacobs et al. (2000) |
| <b>D. Klamath Mountains Province</b>   |                   |                      |                        |                   |  |
| Upper Rogue River (spring)   | Extant            | D1                   | F2b                    | D1                | Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998)                       |
| Lower Mainstem Rogue/Illinois rivers (fall)  | Extant            | D1                   | F2a                    | D1                | Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998), Jacobs et al. (2000) |
| Middle Mainstem Rogue/Applegate rivers (fall)  | Extant            | D1                   | F2a                    | D1                | Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998), Jacobs et al. (2000) |
| Upper Rogue River (fall)   | Extant            | D1                   | F2a                    | D1                | Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998), Jacobs et al. (2000) |
| Hunter Creek, Pistol River (fall)  | Extant            | D3                   | F2a                    | D1                | Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998), Jacobs et al. (2000) |
| Chetco/Winchuck rivers (fall)  | Extant            | D3                   | F2a                    | D1                | Nicholas and Hankin (1988), Kostow (1995), Myers et al. (1998), Jacobs et al. (2000) |
| North/Middle/South Forks Smith River (spring)  | Extant            | D3                   | F2b                    | D1                | Myers et al. (1998)  |
| Smith River (fall)   | Extant            | D3                   | F2a                    | D1                | Myers et al. (1998)  |
| <b>KLAMATH RIVER</b>   |                   |                      |                        |                   |  |
| Middle Klamath River independent tributaries (Clear/Elk/Dillon/Indian creeks) (spring) | Extinct           | D2                   | F1b                    | E1                | Kier Associates (1991), ONRC (1995)  |
| Salmon River, Wooley Creek (spring)  | Extant            | D2                   | F1b                    | E1                | Kier Associates (1991), ONRC (1995), Myers et al. (1998)                             |
| Scott River (spring)   | Extinct           | D2                   | F1b                    | E1                | ONRC (1995)  |
| Shasta River (spring)  | Extinct           | D2                   | F1b                    | E1                | ONRC (1995)  |



| Chinook salmon population   | Population status                                 | Diversity category   |                        |                   | Reference   |
|---|---|----------------------|------------------------|-------------------|---|
|   |   | Ecological diversity | Life history diversity | Genetic Diversity |   |
| Williamson River (spring)   | Extinct (original population existence uncertain) | D2                   | F1b                    | E2                | Nehlsen et al. (1991), ONRC (1995), Moyle et al. (1995), Brownell et al. (2001), Hamilton et al. (2005) |
| Sprague River (spring)  | Extinct (original population existence uncertain) | D2                   | F1b                    | E2                | Nehlsen et al. (1991), ONRC (1995), Moyle et al. (1995), Brownell et al. (2001), Hamilton et al. (2005) |
| Wood River (spring)   | Extinct (original population existence uncertain) | D2                   | F1b                    | E2                | Nehlsen et al. (1991), ONRC (1995), Moyle et al. (1995), Hamilton et al. (2005)                         |
| Lower Klamath River tributaries below Trinity River confluence (Blue Creek) (fall)                | Extant  | D2                   | F1a                    | E1                | Leidy and Leidy (1984), Kier Associates (1991), Myers et al. (1998)                                     |
| Middle Klamath River tributaries from confluence with Trinity River to Scott River (fall)         | Extant  | D2                   | F1a                    | E                 | Leidy and Leidy (1984), Kier Associates (1991), Myers et al. (1998)                                     |
| Klamath River and tributaries above Scott River (fall)  | Extant  | D2                   | F1a                    | E2                | Leidy and Leidy (1984), Kier Associates (1991), Myers et al. (1998)                                     |
| Salmon River (fall)   | Extant  | D2                   | F1a                    | E1                | Kier Associates (1991), Myers et al. (1998)   |
| Scott River (fall)  | Extant  | D2                   | F1a                    | E1                | Kier Associates (1991), Myers et al. (1998)   |
| Shasta River (fall)   | Extant  | D2                   | F1a                    | E1                | Snyder (1931), Kier Associates (1991), Myers et al. (1998)  |
| <b>TRINITY RIVER</b>  |   |                      |                        |                   |   |
| South Fork Trinity River, Hayfork Creek (spring)  | Extant  | D2                   | F1b                    | E1                | Kier Associates (1991), Myers et al. (1998)   |
| Middle Trinity River and tributaries (New River/North Fork) (spring)                              | Extant  | D2                   | F1b                    | E1                | Kier Associates (1991), Myers et al. (1998)   |
| Upper Trinity River and tributaries (Stuart Fork/East Fork Trinity rivers, Coffee Creek) (spring) | Remnant extant (extinct in native habitat)        | D2                   | F1b                    | E1                | Moffett and Smith (1950), Kier Associates (1991), ONRC (1995)   |

| <b>Chinook salmon population</b>  | <b>Population status</b>                   | <b>Diversity category</b>   |                               |                          | <b>Reference</b>  |
|---|--|-----------------------------|-------------------------------|--------------------------|---|
|   |  | <b>Ecological diversity</b> | <b>Life history diversity</b> | <b>Genetic Diversity</b> |   |
| Lower Mainstem Trinity River and tributaries (from Klamath River confluence to South Fork Trinity River) (fall) | Extant                                     | D2                          | F1a                           | E1                       | Kier Associates (1991), Myers et al. (1998)                           |
| South Fork Trinity River (fall)   | Extant                                     | D2                          | F1a                           | E1                       | Kier Associates (1991), Myers et al. (1998)                           |
| Middle Mainstem Trinity River and tributaries (from South Fork to Junction City) (fall)                         | Extant                                     | D2                          | F1a                           | E1                       | Kier Associates (1991), Myers et al. (1998)                           |
| Upper Mainstem Trinity River (above Junction City) (Trinity River Hatchery) (fall)                              | Remnant extant (extinct in native habitat) | D2                          | F1a                           | E2                       | Moffett and Smith (1950), Kier Associates (1991), Myers et al. (1998) |
| <b>E. Northern California (South of Klamath River to San Lorenzo River)</b>                                     |  |                             |                               |                          |   |
| Redwood Creek (fall)  | Extant                                     | E1                          | F2a                           | D2                       | Bjorkstedt et al. (2005)  |
| Redwood Creek (spring)  | Extinct                                    | E1                          | F2b                           | D2                       | Bjorkstedt et al. (2005)  |
| Mad River (fall)  | Extant                                     | E1                          | F2a                           | D2                       | Bjorkstedt et al. (2005)  |
| Mad River (spring)  | Extinct                                    | E1                          | F2b                           | D2                       | Bjorkstedt et al. (2005)  |
| Lower Eel River (fall)  | Extant                                     | E1                          | F2a                           | D2                       | Bjorkstedt et al. (2005)  |
| Upper Eel River (fall)  | Extant                                     | E1                          | F2a                           | D2                       | Bjorkstedt et al. (2005)  |
| Van Duzen River (spring)  | Extinct                                    | E1                          | F2b                           | D2                       | Bjorkstedt et al. (2005)  |
| North Fork Eel River (spring)   | Extinct                                    | E1                          | F2b                           | D2                       | Bjorkstedt et al. (2005)  |
| Middle Fork Eel River (spring)  | Extinct                                    | E1                          | F2b                           | D2                       | Bjorkstedt et al. (2005)  |
| Upper Eel River (spring)  | Extinct                                    | E1                          | F2b                           | D2                       | Bjorkstedt et al. (2005)  |
| Mattole River (fall)  | Extant                                     | E1                          | F2a                           | D2                       | Bjorkstedt et al. (2005)  |
| Ten Mile River (fall)   | Extant                                     | E2                          | F2a                           | D2                       | Bjorkstedt et al. (2005)  |
| Noyo River (fall)   | Extant                                     | E2                          | F2a                           | D2                       | Bjorkstedt et al. (2005)  |
| Big River (fall)  | Extant                                     | E2                          | F2a                           | D2                       | Bjorkstedt et al. (2005)  |
| Navarro River (fall)  | Extant                                     | E2                          | F2a                           | D2                       | Bjorkstedt et al. (2005)  |
| Russian River (fall)  | Extant                                     | E2                          | F2a                           | D2                       | Bjorkstedt et al. (2005)  |
| Golden Gate to Monterey Bay (San Lorenzo River, etc.)   | Extinct                                    | E2                          | F2a                           | D2                       | Snyder (1914), Myers et al. (1998)                                    |
| <b>F. Southern California</b>   |  |                             |                               |                          |   |

| <b>Chinook salmon population</b>  | <b>Population status</b>                   | <b>Diversity category</b>   |                               |                          | <b>Reference</b>   |
|---|--|-----------------------------|-------------------------------|--------------------------|--|
|   |  | <b>Ecological diversity</b> | <b>Life history diversity</b> | <b>Genetic Diversity</b> |  |
| Pajaro River  | Extinct                                    | F2                          | F2a                           | D2                       | Snyder (1914)  |
| South of Monterey Peninsula (Ventura River, Arroyo Grande/San Luis Obispo creeks, etc.)   | Extinct                                    | F2                          | F2a                           | D2                       | Jordan and Gilbert (1881, 1882), Jordan (1894, 1895), Jordan and Evermann (1896), Reynolds et al. (1990) |
| <b>G. California Central Valley</b>   |  |                             |                               |                          |  |
| SACRAMENTO RIVER  |  |                             |                               |                          |  |
| McCloud River (Homogenized remnant winter run - combined McCloud, Pit, Upper Sacramento rivers and Hat Creek) (displaced to below Shasta Dam) | Remnant extant (extinct in native habitat) | G1a                         | Ga                            | F1                       | Lindley et al. (2004)  |
| McCloud River (spring)  | Extinct                                    | G1a                         | Gb                            | F2                       | Lindley et al. (2004)  |
| McCloud River (fall)  | Extinct                                    | G1a                         | Ga                            | F3                       | Yoshiyama et al. (2000, 2001)  |
| Pit and Hat rivers (winter)   | Extinct (absorbed into other gene pool)    | G1a                         | Ga                            | F1                       | Lindley et al. (2004)  |
| Pit and Hat rivers (spring)   | Extinct                                    | G1a                         | Gb                            | F2                       | Lindley et al. (2004)  |
| Pit River (fall)  | Extinct                                    | G1a                         | Ga                            | F3                       | Yoshiyama et al. (2000, 2001)  |
| Upper (Little) Sacramento River (winter)  | Extinct (absorbed into other gene pool)    | G1a                         | Ga                            | F1                       | Lindley et al. (2004)  |
| Upper (Little) Sacramento River (spring)  | Extinct                                    | G1a                         | Gb                            | F2                       | Lindley et al. (2004)  |
| Upper (Little) Sacramento River (fall)  | Extinct                                    | G1a                         | Ga                            | F3                       | Yoshiyama et al. (2000, 2001)  |
| Upper Sacramento River (late fall)  | Extinct                                    | G1a                         | Ga                            | F3                       | Yoshiyama et al. (2000, 2001)  |
| Clear Creek (fall)  | Extant                                     | G1a                         | Ga                            | F3                       | Yoshiyama et al. (2000, 2001)  |
| Cottonwood Creek (fall)   | Extant                                     | G1a                         | Ga                            | F3                       | Myers et al. (1998), Yoshiyama et al. (2000, 2001)   |
| Battle Creek (winter)   | Extinct                                    | G1a                         | Ga                            | F1                       | Lindley et al. (2004)  |
| Battle Creek (spring)   | Extinct                                    | G1a                         | Gb                            | F2                       | Lindley et al. (2004)  |
| Battle Creek (fall)   | Extant                                     | G1b                         | Ga                            | F3                       | Myers et al. (1998)  |

| Chinook salmon population  | Population status                          | Diversity category   |                        |                   | Reference  |
|--|--|----------------------|------------------------|-------------------|--|
|  |  | Ecological diversity | Life history diversity | Genetic Diversity |  |
| Cow Creek (fall)   | Extant                                     | G1b                  | Ga                     | F3                | Yoshiyama et al. (2000, 2001)                      |
| Antelope Creek (fall)  | Extinct                                    | G1a                  | Ga                     | F3                | Yoshiyama et al. (2000, 2001)                      |
| Antelope Creek (late fall)   | Extinct                                    | G1a                  | Ga                     | F3                | Yoshiyama et al. (2000, 2001)                      |
| Mill and Deer creeks (spring)  | Extant                                     | G1b                  | Gb                     | F2                | Lindley et al. (2004)                              |
| Mill Creek (fall)  | Extant                                     | G1b                  | Ga                     | F3                | Myers et al. (1998), Yoshiyama et al. (2000, 2001) |
| Deer Creek (fall)  | Extant                                     | G1b                  | Ga                     | F3                | Myers et al. (1998), Yoshiyama et al. (2000, 2001) |
| Stony Creek (fall)   | Extinct                                    | G1c                  | Ga                     | F3                | Yoshiyama et al. (2000, 2001)                      |
| Butte Creek (spring)   | Extant                                     | G1b                  | Gb                     | F2                | Lindley et al. (2004)                              |
| Butte Creek (fall)   | Extant                                     | G1b                  | Ga                     | F3                | Yoshiyama et al. (2000, 2001)                      |
| North Fork/ Feather River -(Homogenized remnant spring run - combined North Fork, West Branch, Middle Fork, South Fork populations (spawn below Oroville Dam and in Feather River Hatchery) (spring) | Remnant extant (extinct in native habitat) | G1b                  | Gb                     | F2                | Lindley et al. (2004)                              |
| West Branch Feather River (spring)   | Extinct (absorbed into other gene pool)    | G1b                  | Gb                     | F2                | Lindley et al. (2004)                              |
| Middle Fork Feather River (spring)   | Extinct (absorbed into other gene pool)    | G1b                  | Gb                     | F2                | Lindley et al. (2004)                              |
| South Fork Feather River (spring)  | Extinct (absorbed into other gene pool)    | G1b                  | Gb                     | F2                | Lindley et al. (2004)                              |
| Feather River (fall)   | Extant                                     | G1b                  | Ga                     | F3                | Myers et al. (1998), Yoshiyama et al. (2001)       |
| Yuba River (spring)  | Extant                                     | G1b                  | Gb                     | F2                | Lindley et al. (2004)                              |
| Yuba River (fall)  | Extant                                     | G1b                  | Ga                     | F3                | Myers et al. (1998), Yoshiyama et al. (2001)       |
| Bear River (fall)  | Extinct                                    | G1b                  | Ga                     | F3                | Yoshiyama et al. (2000, 2001)                      |
| Cache/Putah creeks (fall)  | Extinct                                    | G1c                  | Ga                     | F3                | Yoshiyama et al. (2000, 2001)                      |
| North Fork and Middle Fork American River (spring)   | Extinct                                    | G3                   | Gb                     | F2                | Lindley et al. (2004)                              |
| South Fork American River (spring)   | Extinct                                    | G3                   | Gb                     | F2                | Lindley et al. (2004)                              |

| Chinook salmon population   | Population status                          | Diversity category   |                        |                   | Reference   |
|---|--|----------------------|------------------------|-------------------|---|
|   |  | Ecological diversity | Life history diversity | Genetic Diversity |   |
| American River (fall)   | Extant                                     | G2                   | Ga                     | F3                | Myers et al. (1998), Yoshiyama et al. (2000, 2001)  |
| American River (late fall)  | Extinct                                    | G3                   | Gb                     | F2                | Nehlsen et al. (1991), ONRC (1995), Yoshiyama et al. (2000, 2001), Brownell et al. (2001) |
| <b>SAN JOAQUIN RIVER</b>  |  |                      |                        |                   |   |
| Mokelumne River (spring)  | Extinct                                    | G3                   | Gb                     | F2                | Lindley et al. (2004)   |
| Mokelumne River (fall)  | Extant                                     | G3                   | Ga                     | F3                | Myers et al. (1998), Yoshiyama et al. (2001)  |
| Mokelumne River (late fall)   | Extinct                                    | G3                   | Ga                     | F3                | Yoshiyama et al. (2000, 2001)   |
| Cosumnes River (fall)   | Extinct                                    | G3                   | Ga                     | F3                | Myers et al. (1998), Yoshiyama et al. (2000, 2001)  |
| Stanislaus River (spring)   | Extinct                                    | G3                   | Gb                     | F2                | Lindley et al. (2004)   |
| Stanislaus River (fall)   | Extant                                     | G3                   | Ga                     | F3                | Myers et al. (1998)   |
| Tuolumne River (spring)   | Extinct                                    | G3                   | Gb                     | F2                | Lindley et al. (2004)   |
| Tuolumne River (fall)   | Extant                                     | G3                   | Ga                     | F3                | Myers et al. (1998)   |
| Merced River (spring)   | Extinct                                    | G2                   | Gb                     | F2                | Lindley et al. (2004)   |
| Merced River (fall)   | Extant                                     | G2                   | Ga                     | F3                | Myers et al. (1998)   |
| Middle and Upper San Joaquin River (spring)   | Extinct                                    | G2                   | Gb                     | F2                | Lindley et al. (2004)   |
| Upper San Joaquin River (fall)  | Extinct                                    | G2                   | Ga                     | F3                | ONRC (1995), Yoshiyama et al. (2000, 2001)  |
| Upper mainstem San Joaquin River (late fall)  | Extinct                                    | G2                   | Ga                     | F3                | Yoshiyama et al. (2000, 2001)   |
| Kings River (and Tulare Lake) (fall)  | Extinct                                    | G2                   | Ga                     | F3                | Yoshiyama et al. (2000, 2001)   |
| <b>H. Willamette River Valley and Lower Columbia River</b>  |  |                      |                        |                   |   |
| <b>COLUMBIA RIVER</b>   |  |                      |                        |                   |   |
| Upper Cowlitz River (Homogenized remnant spring run - maintained as combined hatchery stock of Upper Cowlitz River, Cispus River and Tilton River populations) (spring) | Remnant extant (extinct in native habitat) | H2                   | Db                     | G                 | Myers et al. (2006)   |

| Chinook salmon population   | Population status                          | Diversity category   |                        |                   | Reference  |
|---|--|----------------------|------------------------|-------------------|--|
|   |  | Ecological diversity | Life history diversity | Genetic Diversity |  |
| Cispus River (spring)   | Extinct (absorbed into other gene pool)    | H2                   | Db                     | G                 | Myers et al. (2006)  |
| Tilton River (spring)   | Extinct (absorbed into other gene pool)    | H2                   | Db                     | G                 | Myers et al. (2006)  |
| Toutle River (spring)   | Extinct                                    | H2                   | Db                     | G                 | Myers et al. (2006)  |
| Kalama River (spring)   | Extinct                                    | H2                   | Db                     | G                 | Myers et al. (2006)  |
| Lewis River (displaced below Merwin Dam - highly modified by out of basin transplants) (spring) | Remnant extant (extinct in native habitat) | H2                   | Db                     | G                 | Myers et al. (2006)  |
| Sandy River (spring)  | Extant                                     | H2                   | Db                     | G1                | Myers et al. (2006)  |
| Big White Salmon River (spring)   | Extinct                                    | H2                   | Db                     | G1                | Myers et al. (2006)  |
| Hood River (spring)   | Extinct                                    | H2                   | Db                     | G1                | Myers et al. (2006)  |
| Klickitat River (spring)  | Extant                                     | H2                   | Db                     | G1                | Nehlsen et al. (1991), WDF et al. (1993), Marshall et al. (1995) |
| Scappoose Creek (fall)  | Extinct                                    | H3                   | Da                     | G2                | Myers et al. (2006)  |
| Upper Cowlitz River (fall)  | Extant                                     | H2                   | Da                     | G2                | Myers et al. (2006)  |
| Lower Cowlitz River (fall)  | Extant                                     | H2                   | Da                     | G2                | Myers et al. (2006)  |
| Toutle River (fall)   | Extant                                     | H2                   | Da                     | G2                | Myers et al. (2006)  |
| Coweeman River (fall)   | Extant                                     | H2                   | Da                     | G2                | Myers et al. (2006)  |
| Kalama River (fall)   | Extant                                     | H2                   | Da                     | G2                | Myers et al. (2006)  |
| Lewis River Early (early fall)  | Extant                                     | H3                   | Da                     | G2                | Myers et al. (2006)  |
| Salmon Creek (early fall)   | Extant                                     | H3                   | Da                     | G2                | Myers et al. (2006)  |
| Lewis River Late (late fall)  | Extant                                     | H2                   | Da                     | G2                | Myers et al. (2006)  |
| Clackamas River (fall)  | Extinct                                    | H2                   | Da                     | G2                | Myers et al. (2006)  |
| Washougal River (fall)  | Extant                                     | H2                   | Da                     | G1                | Myers et al. (2006)  |
| Sandy River Early (early fall)  | Extant                                     | H2                   | Da                     | G2                | Myers et al. (2006)  |
| Sandy River Late (late fall)  | Extant                                     | H2                   | Da                     | G2                | Myers et al. (2006)  |

| Chinook salmon population   | Population status                          | Diversity category   |                        |                   | Reference   |
|---|--|----------------------|------------------------|-------------------|---|
|   |  | Ecological diversity | Life history diversity | Genetic Diversity |   |
| Lower Gorge Tributaries (tule fall)   | Extant                                     | H3                   | Da                     | G1                | Myers et al. (2006)   |
| Upper Gorge Tributaries (tule fall)   | Extant                                     | H3                   | Da                     | G1                | Myers et al. (2006)   |
| Big White Salmon River (tule fall)  | Extant                                     | H2                   | Da                     | G1                | Myers et al. (2006)   |
| Hood River (fall)   | Extant                                     | H2                   | Da                     | G1                | Myers et al. (2006)   |
| <b>WILLAMETTE RIVER</b>   |  |                      |                        |                   |   |
| Clackamas River (spring)  | Extinct                                    | H2                   | Db                     | G                 | Myers et al. (2006)   |
| Molalla River (spring)  | Extinct                                    | H1                   | C                      | H                 | Myers et al. (2006)   |
| North Santiam River (spring)  | Extant                                     | H1                   | C                      | H                 | Myers et al. (2006)   |
| South Santiam River (spring)  | Extant                                     | H1                   | C                      | H                 | Myers et al. (2006)   |
| Calapooia River (spring)  | Extinct                                    | H1                   | C                      | H                 | Myers et al. (2006)   |
| McKenzie River (spring)   | Extant                                     | H1                   | C                      | H                 | Myers et al. (2006)   |
| Middle Fork Willamette River (spring)   | Remnant extant (extinct in native habitat) | H1                   | C                      | H                 | Myers et al. (2006)   |
| <b>I. Mid-Columbia River</b>  |  |                      |                        |                   |   |
| Warm Springs River (spring)   | Extant                                     | I1b                  | A2                     | J1b               | Haas and Warren (1961), Myers et al. (1998)   |
| Metolius River (displaced and homogenized remnant spring run - spawn below Pelton Dam and at Round Butte Hatchery/Pelton Ladder) (spring) | Remnant extant (extinct in native habitat) | I1b                  | A2                     | J1b               | Nehlsen (1995)  |
| Crooked River (spring)  | Extinct (absorbed into other gene pool)    | I1a                  | A2                     | J1b               | Nielsen (1950), Haas and Warren (1961), Fulton (1968), Nehlsen et al. (1991), Kostow (1995), Nehlsen (1995) |
| Upper Deschutes River/Squaw Creek (spring)  | Extinct (absorbed into other gene pool)    | I1a                  | A2                     | J1b               | Nielsen (1950), Haas and Warren (1961), Fulton (1968), Nehlsen et al. (1991), Kostow (1995), Nehlsen (1995) |

| Chinook salmon population  | Population status                          | Diversity category   |                        |                   | Reference   |
|--|--|----------------------|------------------------|-------------------|---|
|  |  | Ecological diversity | Life history diversity | Genetic Diversity |   |
| Mainstem Deschutes/Metolius rivers (Metolius portion displaced below Pelton Dam) (summer)                          | Remnant extant (extinct in native habitat) | I1a                  | Bb                     | I1                | Nehlsen (1995), Myers et al. (1998)                                 |
| Mainstem Deschutes River (fall)  | Extant                                     | I1b                  | Bb                     | I1                | Nehlsen (1995), Myers et al. (1998)                                 |
| Mainstem John Day River (spring)   | Extant                                     | I1b                  | A2                     | J1c               | Haas and Warren (1961), Fulton (1968), Myers et al. (1998)          |
| North Fork John Day River (spring)   | Extant                                     | I1b                  | A2                     | J1c               | Haas and Warren (1961), Fulton (1968), Myers et al. (1998)          |
| Granite/Clear creeks (John Day River) (spring)   | Extant                                     | I1b                  | A2                     | J1c               | Haas and Warren (1961), Fulton (1968), Myers et al. (1998)          |
| Middle Fork John Day River (spring)  | Extant                                     | I1b                  | A2                     | J1c               | Haas and Warren (1961), Fulton (1968), Myers et al. (1998)          |
| John Day River (fall)  | Extinct                                    | I1b                  | B                      | I2                | Haas and Warren (1961), Kostow (1995), Myers et al. (1998)          |
| Umatilla River (spring)  | Extinct                                    | I1                   | A2                     | J1d               | Nehlsen et al. (1991), Kostow (1995), Myers et al. (1998)           |
| Umatilla River (fall)  | Extinct                                    | I1b                  | B                      | I2                | Nehlsen et al. (1991), Kostow (1995), Myers et al. (1998)           |
| Walla Walla River (spring)   | Extinct                                    | I1                   | A2                     | J1                | Nielsen (1950), Fulton (1968), Nehlsen et al. (1991), Kostow (1995) |
| Walla Walla River (fall)   | Extinct                                    | I1b                  | B                      | I2                | Nehlsen et al. (1991), Kostow (1995), Myers et al. (1998)           |
| Upper Yakima River (spring)  | Extant                                     | I2a                  | A2                     | J1a               | WDF et al. (1993), Myers et al. (1998)                              |
| Naches / American River (spring)   | Extant                                     | I2a                  | A2                     | J1a               | WDF et al. (1993), Myers et al. (1998)                              |
| Yakima River (summer)  | Extinct                                    | I2a                  | Ba                     | J1a               | WDF et al. (1993), Myers et al. (1998)                              |
| Yakima River (fall)  | Extinct                                    | I2a                  | Ba                     | I2                | WDF et al. (1993), Myers et al. (1998)                              |
| Mainstem Columbia River from Celilo Falls to Snake River confluence (upriver bright fall) (includes Hanford Reach) | Extant                                     | I3                   | Ba                     | I2                | Horner and Bjornn (1979), WDF et al. (1993), Myers et al. (1998)    |
| <b>J. Upper-Columbia River</b>   |  |                      |                        |                   |   |
| Icicle Creek (spring)  | Extinct                                    | J1b                  | Ab                     | J2a               | Myers et al. (1998)   |
| Chiwawa River (spring)   | Extant                                     | J1b                  | Ab                     | J2a               | WDF et al. (1993), Myers et al. (1998)                              |



| Chinook salmon population                                  | Population status | Diversity category   |                        |                   | Reference   |
|--|-------------------|----------------------|------------------------|-------------------|---|
|  |                   | Ecological diversity | Life history diversity | Genetic Diversity |   |
| Nason Creek (spring)                                       | Extant            | J1b                  | Ab                     | J2a               | WDF et al. (1993), Myers et al. (1998)  |
| Little Wenatchee/White rivers (spring)                     | Extant            | J1a                  | Ab                     | J2a               | WDF et al. (1993), Myers et al. (1998)  |
| Wenatchee River (summer)                                   | Extant            | J1a                  | Ba                     | I2                | WDF et al. (1993), Myers et al. (1998)  |
| Entiat River (spring)                                      | Extant            | J1b                  | A2                     | J2a               | Craig and Suomela (1941), Horner and Bjornn (1979), WDF et al. (1993)   |
| Entiat River (summer)                                      | Extinct           | J1b                  | Ba                     | I2                | Nehlsen et al. (1991), ONRC (1995)  |
| Mainstem Methow/Lost Rivers, Early Winters creeks (spring) | Extant            | J1b                  | Ab                     | J2a               | Craig and Suomela (1941), French and Wahle (1960, 1965), WDF et al. (1993), Myers et al. (1998)   |
| Twisp River (spring)                                       | Extant            | J1b                  | Ab                     | J2a               | Craig and Suomela (1941), French and Wahle (1960, 1965), WDF et al. (1993), Myers et al. (1998)   |
| Chewuch (Chewack) River (spring)                           | Extant            | J1b                  | Ab                     | J2a               | Craig and Suomela (1941), French and Wahle (1960, 1965), WDF et al. (1993), Myers et al. (1998)   |
| Methow River (summer)                                      | Extant            | J1b                  | Ba                     | I2                | WDF et al. (1993), Myers et al. (1998)  |
| Okanogan River (spring)                                    | Extinct           | J2                   | A2                     | J2a               | Nehlsen et al. (1991), ONRC (1995), Interior Columbia Basin TRT (2005)  |
| Okanogan River below Lake Osoyoos (summer)                 | Extant            | J2a                  | Ba                     | I2                | French and Wahle (1965), WDF et al. (1993), Myers et al. (1998)   |
| Lower Sanpoil River and tributaries (spring/summer)        | Extinct           | J5                   | A2                     | J2a               | Bryant and Parkhurst (1950), Fulton (1968), Nehlsen et al. (1991)   |
| Upper Sanpoil River and tributaries (spring/summer)        | Extinct           | J5                   | A2                     | J2a               |   |
| West Fork Sanpoil River (spring/summer)                    | Extinct           | J5                   | A2                     | J2a               |   |
| Lower Sanpoil River (fall)                                 | Extinct           | J5                   | Ba                     | I2                | Nehlsen et al. (1991)   |
| Spokane River (spring)                                     | Extinct           | J6                   | A2                     | J2a               | Stone (1885), Gilbert and Evermann (1894), Bryant and Parkhurst (1950), Fulton (1968), Scholz et al. (1985), Nehlsen et al. (1991), ONRC (1995) |
| Spokane River (summer)                                     | Extinct           | J6                   | A2                     | J2a               | Fulton (1968), Scholz et al. (1985)   |
| Little Spokane River (spring/summer)                       | Extinct           | J6                   | A2                     | J2a               | Stone (1885), Gilbert and Evermann (1894), Fulton (1968), Scholz et al. (1985)  |
| Lower Spokane River (fall)                                 | Extinct           | J6                   | Ba                     | I2                | Gilbert and Evermann (1894), Nehlsen et al. (1991)  |
| Colville River (lower 6 km) (spring/summer)                | Extinct           | J6                   | A2                     | J2a               | Gilbert and Evermann (1894), Bryant and Parkhurst (1950), Fulton (1968), Nehlsen et al. (1991), ONRC (1995)                                     |

| Chinook salmon population  | Population status | Diversity category   |                        |                   | Reference  |
|--|-------------------|----------------------|------------------------|-------------------|--|
|  |                   | Ecological diversity | Life history diversity | Genetic Diversity |  |
| Kettle River (spring/summer)   | Extinct           | J5                   | A2                     | J2a               | Bryant and Parkhurst (1950), Fulton (1968), Nehlsen et al. (1991), ONRC (1995)       |
| Mainstem Columbia River (Okanogan River confluence upstream to Kettle Falls) (upriver bright fall)     | Extinct           | J3                   | Ba                     | I2                | Gilbert and Evermann (1894), Fulton (1968), Horner and Bjornn (1979)                 |
| Mainstem Columbia River from Snake River confluence to Okanogan River confluence (upriver bright fall) | Extinct           | J3                   | Ba                     | I2                | Davidson (1966), Horner and Bjornn (1979)  |
| <b>K. Lower Snake River</b>  |                   |                      |                        |                   |  |
| Tucannon River (spring/summer)   | Extant            | K2b                  | A2                     | J1                | Interior Columbia Basin TRT (2003)   |
| Tucannon River (fall)  | Extinct           | K2b                  | B                      | I2                | Parkhurst (1950a), Lichatowich et al. (1993)   |
| Asotin Creek (spring/summer)   | Extant            | K2b                  | Ab                     | J2b               | Interior Columbia Basin TRT (2003)   |
| Lower Snake River and lower reaches of large tributaries (fall)  | Extant            | K4                   | Bb                     | I1                | Interior Columbia Basin TRT (2003)   |
| <b>CLEARWATER RIVER</b>  |                   |                      |                        |                   |  |
| Lapwai/Big Canyon creeks   | Extinct           | K1                   | A1                     | J2b               | Interior Columbia Basin TRT (2005)   |
| Potlatch River (spring/summer)   | Extinct           | K1                   | A1                     | J2b               | Fulton (1968), Interior Columbia Basin TRT (2005)                                    |
| Lawyer Creek   | Extinct           | K1                   | A1                     | J2b               | Interior Columbia Basin TRT (2005)   |
| Upper South Fork Clearwater River (spring/summer)  | Extinct           | K1                   | A1                     | J2b               | Fulton (1968), ONRC (1995), Interior Columbia Basin TRT (2005)                       |
| Lower North Fork Clearwater River (spring/summer)  | Extinct           | K1                   | A1                     | J2b               | Fulton (1968), ONRC (1995), Interior Columbia Basin TRT (2005)                       |
| Upper North Fork Clearwater River (spring/summer)  | Extinct           | K1                   | A1                     | J2b               | Fulton (1968), ONRC (1995), Interior Columbia Basin TRT (2005)                       |
| Lolo Creek (spring/summer)   | Extinct           | K1                   | A1                     | J2b               | Keifer et al. (1992), Interior Columbia Basin TRT (2005)                             |
| Lochsa River (spring/summer)   | Extinct           | K1                   | A1                     | J2b               | Fulton (1968), Keifer et al. (1992), ONRC (1995), Interior Columbia Basin TRT (2005) |
| Meadow Creek   | Extinct           | K1                   | A1                     | J2b               | Interior Columbia Basin TRT (2005)   |
| Moose Creek  | Extinct           | K1                   | A1                     | J2b               | Interior Columbia Basin TRT (2005)   |
| Upper Selway River (spring/summer)   | Extinct           | K1                   | A1                     | J2b               | Fulton (1968), ONRC (1995), Interior Columbia Basin TRT (2005)                       |
| Clearwater River (fall)  | Extant            | K1                   | Bb                     | I1                | Nehlsen et al. (1991)  |

| Chinook salmon population  | Population status | Diversity category   |                        |                   | Reference                          |
|--|-------------------|----------------------|------------------------|-------------------|------------------------------------|
|  |                   | Ecological diversity | Life history diversity | Genetic Diversity |                                    |
| GRANDE RONDE RIVER   |                   |                      |                        |                   |                                    |
| Lookingglass Creek (spring/summer)                               | Extinct           | K2b                  | A1                     | J2b               | Interior Columbia Basin TRT (2003) |
| Catherine Creek (spring/summer)                                  | Extant            | K2b                  | A1                     | J2b               | Interior Columbia Basin TRT (2003) |
| Wallowa/Lostine rivers (spring/summer)                           | Extant            | K2a                  | A1                     | J2b               | Interior Columbia Basin TRT (2003) |
| Minam River (spring/summer)                                      | Extant            | K2b                  | A1                     | J2b               | Interior Columbia Basin TRT (2003) |
| Upper mainstem Grande Ronde River (spring/summer)                | Extant            | K2b                  | A1                     | J2b               | Interior Columbia Basin TRT (2003) |
| Wenaha River (spring/summer)                                     | Extant            | K2b                  | A1                     | J2b               | Interior Columbia Basin TRT (2003) |
| IMNAHA RIVER   |                   |                      |                        |                   |                                    |
| Big Sheep Creek (spring/summer)                                  | Extant            | K2b                  | A1                     | J2b               | Interior Columbia Basin TRT (2003) |
| Imnaha River mainstem (spring/summer)                            | Extant            | K2b                  | A1                     | J2b               | Interior Columbia Basin TRT (2003) |
| SALMON RIVER   |                   |                      |                        |                   |                                    |
| Secesh River (spring/summer)                                     | Extant            | K3b                  | A1                     | J2b               | Interior Columbia Basin TRT (2003) |
| South Fork Salmon River (spring/summer)                          | Extant            | K3a                  | A1                     | J2b               | Interior Columbia Basin TRT (2003) |
| East Fork South Fork Salmon River, Johnson Creek (spring/summer) | Extant            | K3b                  | A1                     | J2b               | Interior Columbia Basin TRT (2003) |
| Chamberlain Creek (spring/summer)                                | Extant            | K3b                  | A1                     | J2b               | Interior Columbia Basin TRT (2003) |
| Little Salmon River (spring/summer)                              | Extant            | K3b                  | A1                     | J2b               | Interior Columbia Basin TRT (2003) |
| Bear Valley/Elk creeks (spring/summer)                           | Extant            | K3b                  | A1                     | J2b               | Interior Columbia Basin TRT (2003) |
| Big Creek (spring/summer)  | Extant            | K3b                  | A1                     | J2b               | Interior Columbia Basin TRT (2003) |
| Camas Creek (spring/summer)                                      | Extant            | K3b                  | A1                     | J2b               | Interior Columbia Basin TRT (2003) |
| Lower Middle Fork Salmon River (spring/summer)                   | Extant            | K3b                  | A1                     | J2b               | Interior Columbia Basin TRT (2003) |
| Pistol Creek (spring/summer)                                     | Extant            | K3b                  | A1                     | J2b               | Interior Columbia Basin TRT (2003) |
| Marsh Creek (spring/summer)                                      | Extant            | K3b                  | A1                     | J2b               | Interior Columbia Basin TRT (2003) |
| Sulphur Creek (spring/summer)                                    | Extant            | K3b                  | A1                     | J2b               | Interior Columbia Basin TRT (2003) |
| Loon Creek (spring/summer)                                       | Extant            | K3b                  | A1                     | J2b               | Interior Columbia Basin TRT (2003) |
| Upper Middle Fork Salmon River (spring/summer)                   | Extant            | K3b                  | A1                     | J2b               | Interior Columbia Basin TRT (2003) |
| Valley Creek (spring/summer)                                     | Extant            | K3b                  | A1                     | J2b               | Interior Columbia Basin TRT (2003) |

| <b>Chinook salmon population</b>                               | <b>Population status</b> | <b>Diversity category</b>   |                               |                          | <b>Reference</b>   |
|--|--------------------------|-----------------------------|-------------------------------|--------------------------|--|
|  |                          | <b>Ecological diversity</b> | <b>Life history diversity</b> | <b>Genetic Diversity</b> |  |
| Lemhi River (spring/summer)                                    | Extant                   | K3b                         | A1                            | J2b                      | Interior Columbia Basin TRT (2003)   |
| North Fork Salmon River (spring/summer)                        | Extant                   | K3b                         | A1                            | J2b                      | Interior Columbia Basin TRT (2003)   |
| Pahsimeroi River (spring/summer)                               | Extant                   | K3b                         | A1                            | J2b                      | Interior Columbia Basin TRT (2003)   |
| East Fork Salmon River (spring/summer)                         | Extant                   | K3b                         | A1                            | J2b                      | Interior Columbia Basin TRT (2003)   |
| Upper mainstem Salmon River above Redfish Lake (spring/summer) | Extant                   | K3b                         | A1                            | J2b                      | Interior Columbia Basin TRT (2003)   |
| Upper mainstem Salmon River below Redfish Lake (spring/summer) | Extant                   | K3b                         | A1                            | J2b                      | Interior Columbia Basin TRT (2003)   |
| Yankee Fork (spring/summer)                                    | Extant                   | K3b                         | A1                            | J2b                      | Interior Columbia Basin TRT (2003)   |
| Panther Creek (spring/summer)                                  | Extinct                  | K3b                         | A1                            | J2b                      | Interior Columbia Basin TRT (2003)   |
| <b>ABOVE HELL'S CANYON</b>                                     |                          |                             |                               |                          |  |
| Pine Creek (spring/summer)                                     | Extinct                  | K2b                         | A1                            | J2b                      | Parkhurst (1950b), Thompson and Haas (1960), Fulton (1968), Interior Columbia Basin TRT (2005)   |
| Eagle Creek (spring/summer)                                    | Extinct                  | K2b                         | A1                            | J2b                      | Parkhurst (1950b), Thompson and Haas (1960), Interior Columbia Basin TRT (2005)  |
| Powder River (spring/summer)                                   | Extinct                  | K2b                         | A1                            | J2b                      | Parkhurst (1950b), Thompson and Haas (1960), Fulton (1968), Nehlsen et al. (1991), ONRC (1995), Interior Columbia Basin TRT (2005)             |
| Burnt River (spring/summer)                                    | Extinct                  | K2b                         | A1                            | J2b                      | Parkhurst (1950b), Thompson and Haas (1960), Fulton (1968), Interior Columbia Basin TRT (2005)   |
| <b>L. Upper-Snake River</b>                                    |                          |                             |                               |                          |  |
| Marsing Reach (fall)   | Extinct                  | L4                          | Bb                            | I1                       | Evermann (1896), Rathbun (1896), Van Dusen (1903), Parkhurst (1950b), Fulton (1968), Nehlsen et al. (1991), Interior Columbia Basin TRT (2005) |
| Salmon Falls (fall)  | Extinct                  | L4                          | Bb                            | I1                       | Evermann (1896), Rathbun (1896), Van Dusen (1903), Parkhurst (1950b), Fulton (1968), Nehlsen et al. (1991), Interior Columbia Basin TRT (2005) |
| Lower Weiser River/Crane Creek (spring/summer)                 | Extinct                  | L1b                         | A1                            | J2b                      | Parkhurst (1950b), Fulton (1968), Interior Columbia Basin TRT (2005)   |
| Little Weiser River (spring/summer)                            | Extinct                  | L1b                         | A1                            | J2b                      | Parkhurst (1950b), Fulton (1968), Interior Columbia Basin TRT (2005)   |
| Upper Weiser River (spring/summer)                             | Extinct                  | L1b                         | A1                            | J2b                      | Parkhurst (1950b), Fulton (1968), Interior Columbia Basin TRT (2005)   |

| Chinook salmon population                        | Population status | Diversity category   |                        |                   | Reference  |
|--|-------------------|----------------------|------------------------|-------------------|--|
|  |                   | Ecological diversity | Life history diversity | Genetic Diversity |  |
| Big Willow/Little Willow creeks                  | Extinct           | L1b                  | A1                     | J2b               | Interior Columbia Basin TRT (2005)   |
| Squaw Creek                                      | Extinct           | L1b                  | A1                     | J2b               | Interior Columbia Basin TRT (2005)   |
| North Fork Payette River (spring/summer)         | Extinct           | L1b                  | A1                     | J2b               | Evermann (1896), Rathbun (1896), Evermann (1897), Parkhurst (1950b), Fulton (1968), Nehlsen et al. (1991), ONRC (1995), Interior Columbia Basin TRT (2005) |
| South Fork Payette River (spring/summer)         | Extinct           | L1b                  | A1                     | J2b               | Parkhurst (1950b), Fulton (1968), Interior Columbia Basin TRT (2005)   |
| Upper Malheur River (spring/summer)              | Extinct           | L2                   | A1                     | J2b               | Parkhurst (1950c), Thompson and Haas (1960), Fulton (1968), Nehlsen et al. (1991), ONRC (1995), Interior Columbia Basin TRT (2005)                         |
| North Fork Malheur River (spring/summer)         | Extinct           | L2                   | A1                     | J2b               | Parkhurst (1950c), Thompson and Haas (1960), Fulton (1968), Interior Columbia Basin TRT (2005)   |
| Willow Creek/lower Malheur River (spring/summer) | Extinct           | L2                   | A1                     | J2b               | Fulton (1968), Interior Columbia Basin TRT (2005)  |
| Mainstem Boise River (spring/summer)             | Extinct           | L1b                  | A1                     | J2b               | Gilbert and Evermann (1894), Parkhurst (1950c), Fulton (1968), Nehlsen et al. (1991)   |
| South Fork Boise River (spring/summer)           | Extinct           | L1b                  | A1                     | J2b               | Townsend (1839), Parkhurst (1950c), Fulton (1968)  |
| Middle Fork Boise River (spring/summer)          | Extinct           | L1b                  | A1                     | J2b               | Parkhurst (1950c), Fulton (1968)   |
| North Fork Boise River (spring/summer)           | Extinct           | L1b                  | A1                     | J2b               | Fulton (1968)  |
| Lower Owyhee River (spring/summer)               | Extinct           | L2                   | A1                     | J2b               | Gilbert and Evermann (1894), Parkhurst (1950c), Fulton (1968), Nehlsen et al. (1991), ONRC (1995), Interior Columbia Basin TRT (2005)                      |
| Little Owyhee River                              | Extinct           | L2                   | A1                     | J2b               | Interior Columbia Basin TRT (2005)   |
| South Fork Owyhee River                          | Extinct           | L2                   | A1                     | J2b               | Interior Columbia Basin TRT (2005)   |
| Upper Owyhee River (spring/summer)               | Extinct           | L2                   | A1                     | J2b               | Gilbert and Evermann (1894), Fulton (1968), Interior Columbia Basin TRT (2005)   |
| Lower Bruneau River (spring/summer)              | Extinct           | L2                   | A1                     | J2b               | Gilbert and Evermann (1894), Parkhurst (1950c), Fulton (1968), Nehlsen et al. (1991), ONRC (1995), Interior Columbia Basin TRT (2005)                      |

| <b>Chinook salmon population</b>   | <b>Population status</b> | <b>Diversity category</b>   |                               |                          | <b>Reference</b>   |
|--|--------------------------|-----------------------------|-------------------------------|--------------------------|--|
|  |                          | <b>Ecological diversity</b> | <b>Life history diversity</b> | <b>Genetic Diversity</b> |  |
| Upper Bruneau River (spring/summer)  | Extinct                  | L2                          | A1                            | J2b                      | Gilbert and Evermann (1894), Interior Columbia Basin TRT (2005)  |
| Canyon Creek (spring/summer)   | Extinct                  | L2                          | A1                            | J2b                      | Interior Columbia Basin TRT (2005)   |
| Salmon Falls Creek (spring/summer)   | Extinct                  | L2                          | A1                            | J2b                      | Fulton (1968), Interior Columbia Basin TRT (2005)  |
| Rock Creek (spring/summer)   | Extinct                  | L2                          | A1                            | J2b                      | Fulton (1968), Interior Columbia Basin TRT (2005)  |
| <b>M. Columbia River Headwaters</b>  |                          |                             |                               |                          |  |
| Pend Oreille River (spring)  | Extinct                  | M2                          | A2                            | J2c                      | Bryant and Parkhurst (1950), Fulton (1968), Scholz et al. (1985), Nehlsen et al. (1991), ONRC (1995)           |
| Lower Pend Oreille River (fall)  | Extinct                  | M2                          | Ba                            | I2                       | Nehlsen et al. (1991)  |
| Kootenai River (below Bonnington Falls) (spring)   | Extinct                  | M1a                         | A2                            | J2c                      | Fulton (1968)  |
| Slocan River (spring/)   | Extinct                  | M1a                         | A2                            | J2c                      | Teit (1930)  |
| Lower Kootenai River (fall)  | Extinct                  | M1a                         | Ba                            | I2                       | Nehlsen et al. (1991)  |
| Mainstem Columbia River and tributaries from above Kettle Falls to Upper Arrow Lake (spring)   | Extinct                  | M3a                         | A2                            | J2c                      | Bryant and Parkhurst (1950), Fulton (1968)   |
| Mainstem Columbia River and tributaries from above Upper Arrow Lake to confluence with Canoe River (spring)                                  | Extinct                  | M3a                         | A2                            | J2c                      | Bryant and Parkhurst (1950), Fulton (1968)   |
| Canoe River (spring)   | Extinct                  | M3a                         | A2                            | J2c                      | Bryant and Parkhurst (1950), Fulton (1968)   |
| Mainstem Columbia River and tributaries from above confluence with Canoe River to Lake Windermere (lower Spillimacheen River, etc.) (spring) | Extinct                  | M3a                         | A2                            | J2c                      | Tyrell (1916), Bryant and Parkhurst (1950), Fulton (1968), Scholz et al. (1985), Belyea (1994)                 |
| Mainstem Columbia River and tributaries above outlet of Lake Windermere (Toby Creek, etc.) (spring)  | Extinct                  | M3                          | A2                            | J2c                      | de Smet (1847), Tyrell (1916), Bryant and Parkhurst (1950), Fulton (1968), Scholz et al. (1985), Belyea (1994) |
| Mainstem Columbia River (Above Kettle Falls) (fall)  | Extinct                  | M3a                         | Ba                            | I2                       | Fulton (1968)  |

Appendix Table 3. Proposed historic demographically independent sockeye salmon populations sorted by major (level-I) ecological region. Each population is characterized according to its perceived current population status and historic biodiversity. Ecological, life history and genetic diversity are characterized using the hierarchical diversity matrix (see Appendix S1).

| Sockeye salmon population   | Population status | Diversity category   |                        |                   | Reference   |
|---|-------------------|----------------------|------------------------|-------------------|---|
|   |                   | Ecological diversity | Life history diversity | Genetic Diversity |   |
| <b>A. Georgia Basin</b>   |                   |                      |                        |                   |   |
| STRAIT OF GEORGIA   |                   |                      |                        |                   |   |
| Sakinaw Lake  | Extant            | A1                   | C1b                    | G2                | Marshall et al. (1976a)   |
| West-side Strait of Georgia sea-/river-type (Quinsam/Englishman/Little Qualicum rivers)     | Extant            | A2                   | A                      | I                 | Marshall et al. (1977a), Brown et al. (1977)  |
| East-side Strait of Georgia sea-/river-type (Indian/Mamquam rivers) (Tzoonie River extinct) | Extant            | A2b                  | A                      | I                 | Marshall et al. (1976a), Hancock and Marshall (1986)  |
| Comox Lake, Puntledge River   | Extinct           | A2a                  | D1                     | O                 |   |
| LOWER FRASER RIVER  |                   |                      |                        |                   |   |
| Chilliwack Lake   | Extant            | A2a                  | D1a                    | S                 | Ricker (1972), Marshall et al. (1980b), Withler et al. (2000)   |
| Cultus Lake   | Extant            | A1                   | D1b                    | R                 | Marshall et al. (1980b), Withler et al. (2000)  |
| Harrison Lake (exclusive of Weaver Creek)   | Extant            | A2a                  | D1a                    | Q                 | Hancock and Marshall (1985b), Withler et al. (2000)   |
| Weaver Creek (rear in Harrison Lake)  | Extant            | A1                   | D1c                    | Q                 | Hancock and Marshall (1985b), Withler et al. (2000)   |
| Upper Pitt River (Pitt Lake)  | Extant            | A2a                  | D1a                    | Q                 | Hancock and Marshall (1985a), Withler et al. (2000)   |
| Tributaries to Lillooet Lake (Birkenhead River, John Sandy/Railroad creeks)                 | Extant            | A2a                  | D1a                    | Q                 | Brown et al. (1979a), Withler et al. (2000)   |
| Lower Fraser River sea-type (Harrison River rapids)   | Extant            | A2a                  | B                      | I                 | Hancock and Marshall (1985a, b)   |
| Lower Fraser River river-type (Maria Slough, Widgeon Creek)                                 | Extant            | A2a                  | A                      | I                 | Hancock and Marshall (1985a, b)   |
| Coquitlam Lake/Coquitlam River (early "bastard sockeye")                                    | Extinct           | A2a                  | C1                     | P                 | Ricker (1972), Slaney et al. (1996), Conlin et al. (2000), Koop et al. (2001), Bengueyfield et al. (2001) |
| Alouette Lake/Alouette River (early "bastard sockeye" and late)                             | Extinct           | A2a                  | C1                     | P                 | Foerster (1931), Ricker (1972), Slaney et al. (1996), Conlin et al. (2000), Bengueyfield et al. (2001)    |

| Sockeye salmon population                                  | Population status       | Diversity category   |                        |                   | Reference   |
|--|-------------------------|----------------------|------------------------|-------------------|---|
|  |                         | Ecological diversity | Life history diversity | Genetic Diversity |   |
| PUGET SOUND  |                         |                      |                        |                   |   |
| Baker Lake   | Extant                  | A2                   | D1                     | G1                | WDF et al. (1993), Gustafson et al. (1997)  |
| Washington state river-type                                | Extant                  | A2a                  | A                      | I                 | Gustafson et al. (1997), Gustafson and Winans (1999)  |
| Mason Lake (Sherwood Creek)                                | Extinct                 | A1a                  | D1                     | T                 | Nehlsen et al. (1991)   |
| Big Bear Creek (Lake Washington)                           | Extant                  | A1a                  | D1a                    | H                 | Gustafson et al. (1997)   |
| Lake Cushman (North Fork Skokomish River)                  | Anadromous form extinct | A2a                  | D1                     | U                 | Wampler (1980), Amato (1996)  |
| Lake Sutherland (Elwha River)                              | Anadromous form extinct | A2b                  | D1                     | V                 | Nehlsen et al. (1991), Hiss and Wunderlich (1994)   |
| <b>B. Coastal Rainforest</b>                               |                         |                      |                        |                   |   |
| WEST COAST VANCOUVER ISLAND                                |                         |                      |                        |                   |   |
| Cheewhat Lake  | Extant                  | B1a                  | C1                     | Y                 | Brown et al. (1979b), Rutherford et al. (1992)  |
| Hobiton Lake   | Extant                  | B1a                  | C1                     | Y                 | Aro and Shepard (1967), Brown et al. (1979b), Rutherford et al. (1992)                        |
| Henderson Lake   | Extant                  | B1a                  | D1                     | Z                 | Aro and Shepard (1967), Brown et al. (1979b), Rutherford et al. (1992)                        |
| Great Central Lake   | Extant                  | B2a                  | C1                     | Z                 | Brown et al. (1979b), Rutherford et al. (1992)  |
| Sproat Lake  | Extant                  | B2a                  | C1                     | Z                 | Brown et al. (1979b), Rutherford et al. (1992)  |
| Kennedy Lake (early)                                       | Extant                  | B1a                  | D1                     | AA                | Aro and Shepard (1967), Brown et al. (1979c), Rutherford et al. (1992), Riecken et al. (1999) |
| Kennedy Lake (late)  | Extant                  | B1a                  | D1                     | AA                | Aro and Shepard (1967), Brown et al. (1979c), Rutherford et al. (1992), Riecken et al. (1999) |
| Muriel Lake  | Extant                  | B1a                  | D1                     | AB                | Riecken et al. (1999)   |
| Megin Lake   | Extant                  | B1a                  | D1                     | AC                | Brown et al. (1979c), Riecken et al. (1999)   |
| Cecilia Lake   | Extinct                 | B1a                  | D1                     | AD                | Brown et al. (1979c)  |
| Hesquiat Lake  | Extant                  | B1a                  | D1                     | AD                | Brown et al. (1979c)  |
| Kanim Lake   | Extant                  | B1a                  | C1                     | AD                | Brown et al. (1979c)  |
| Muchalat Lake  | Extant                  | B1a                  | D1                     | AE                | Brown et al. (1979e)  |
| Owossitsa Lake/Creek and Park Lake/River (Esperanza Inlet) | Extant                  | B1a                  | C1                     | AF                | Brown et al. (1979e)  |
| Jansen Lake  | Extant                  | B1a                  | D1                     | AG                | Marshall et al. (1980a)   |



| Sockeye salmon population   | Population status       | Diversity category   |                        |                   | Reference  |
|---|-------------------------|----------------------|------------------------|-------------------|--|
|   |                         | Ecological diversity | Life history diversity | Genetic Diversity |  |
| Power Lake  | Extant                  | B1a                  | D1                     | AG                | Marshall et al. (1980a)  |
| O'Connell Lake (Mahatta River)  | Extant                  | B1a                  | D1                     | AH                | Aro and Shepard (1967), Brown et al. (1979d)   |
| Brink/William lakes (Fisherman River)   | Extant                  | B1a                  | D1                     | AI                | Brown et al. (1979d)   |
| West coast Vancouver Island sea-/river-type (San Juan/Burman/Conuma/Leiner/Mooyah/Sucwoa/ Tahsis/Tsowwin/Zeballos/Kashutl/Tahsish/Tatchu/Marble rivers, Cold/Canton/Deserted/Kleemptee/Chamiss/Clanninick/Narrowgut creeks) | Extant                  | B2b                  | A                      | I                 | Brown et al. (1979b, c, d, e), Marshall et al. (1977b, 1980a)  |
| <b>OLYMPIC PENINSULA</b>  |                         |                      |                        |                   |  |
| Quinault Lake   | Extant                  | B2a                  | C1a                    | E                 | WDF et al. (1993), Gustafson et al. (1997)   |
| Ozette Lake   | Extant                  | B1a                  | C1b                    | D                 | WDF et al. (1993), Gustafson et al. (1997)   |
| Lake Pleasant   | Extant                  | B1a                  | C1b                    | F                 | WDF et al. (1993), Gustafson et al. (1997)   |
| <b>I. Mid-Columbia River</b>  |                         |                      |                        |                   |  |
| Suttle Lake (Deschutes/Metolius rivers)   | Extinct                 | I1a                  | E1a                    | XI                | Nielsen (1950), Haas and Warren (1961), Fulton (1970), Mullan (1986), Nehlsen et al. (1991), Nehlsen (1995), Fryer (1995), Thiesfeld et al. (1999) |
| Bumping Lake (Yakima River)   | Extinct                 | I2a                  | E1                     | M                 | Gangmark and Fulton (1952), Fulton (1970), Mullan (1986)   |
| Cle Elum Lake (Yakima River)  | Extinct                 | I2a                  | E1                     | M                 | Ray (1936), Gangmark and Fulton (1952), Fulton (1970), Mullan (1986)   |
| Kachess Lake (Yakima River)   | Extinct                 | I2a                  | E1                     | M                 | Gangmark and Fulton (1952), Fulton (1970), Mullan (1986)   |
| Keechelus Lake (Yakima River)   | Extinct                 | I2a                  | E1                     | M                 | Gangmark and Fulton (1952), Fulton (1970), Mullan (1986)   |
| <b>J. Upper-Columbia River</b>  |                         |                      |                        |                   |  |
| Christina Lake (Kettle River)   | Anadromous form extinct | J4                   | E1                     | W                 | Bryant and Parkhurst (1950)  |
| Chain Lake (Little Spokane River)   | Anadromous form extinct | J5                   | E1                     | X                 | Whalen (2000)  |

| Sockeye salmon population        | Population status                                 | Diversity category   |                        |                   | Reference  |
|----------------------------------|---|----------------------|------------------------|-------------------|--|
|                                  |   | Ecological diversity | Life history diversity | Genetic Diversity |  |
| Lake Osoyoos (Okanogan River)    | Extant  | J2                   | E1a                    | C                 | WDF et al. (1993)  |
| Skaha Lake (Okanogan River)      | Anadromous form extinct                           | J2a                  | E1                     | C                 | Fish and Hanavan (1948), Bryant and Parkhurst (1950), Gangmark and Fulton (1952), French and Wahle (1960, 1965), Fulton (1970), Mullan (1986), Nehlsen et al. (1991), Fryer (1995) |
| Okanogan Lake (Okanogan River)   | Anadromous form extinct                           | J2a                  | E1                     | C                 | Fish and Hanavan (1948), Bryant and Parkhurst (1950), Gangmark and Fulton (1952), French and Wahle (1960, 1965), Fulton (1970), Mullan (1986), Nehlsen et al. (1991), Fryer (1995) |
| Palmer Lake (Similkameen River)  | Extinct (original population existence uncertain) | J2a                  | E1                     | C                 | Bryant and Parkhurst (1950), French and Wahle (1960, 1965), Fulton (1970), Allen and Meekin (1980), Fryer (1995)   |
| Lake Wenatchee (Wenatchee River) | Extant  | J1                   | E1a                    | B                 | WDF et al. (1993)  |
| <b>K. Lower Snake River</b>      |   |                      |                        |                   |  |
| Redfish Lake                     | Extant  | K3                   | F1b                    | A1                | Bjornn et al. (1968), Waples et al. (1991), Interior Columbia Basin TRT (2005)   |
| Stanley Lake                     | Anadromous form extinct                           | K3                   | F1                     | A1                | Mullan (1986), Nehlsen et al. (1991), Fryer (1995), Interior Columbia Basin TRT (2005)   |
| Alturas Lake                     | Anadromous form extinct                           | K3                   | F1a                    | A1                | Evermann (1896, 1897), Evermann and Scovell (1896), Rathbun (1896), Mullan (1986), Nehlsen et al. (1991), Fryer (1995), Interior Columbia Basin TRT (2005)                         |
| Pettit Lake                      | Extinct   | K3                   | F1a                    | A1                | Evermann (1896, 1897), Evermann and Scovell (1896), Rathbun (1896), Mullan (1986), Nehlsen et al. (1991), Fryer (1995), Interior Columbia Basin TRT (2005)                         |
| Yellowbelly Lake                 | Extinct (original population existence uncertain) | K3                   | F1                     | A1                | Bjornn et al. (1968), Mullan (1986), Nehlsen et al. (1991), Fryer (1995), Interior Columbia Basin TRT (2005)   |

| Sockeye salmon population                              | Population status                                 | Diversity category   |                        |                   | Reference   |
|--|---|----------------------|------------------------|-------------------|---|
|  |   | Ecological diversity | Life history diversity | Genetic Diversity |   |
| Warm Lake (South Fork Salmon River)                    | Anadromous form extinct                           | K3                   | F1b                    | A2                | Mullan (1986), Waples et al. (1997), Interior Columbia Basin TRT (2005)   |
| Wallowa Lake (Grande Ronde River)                      | Extinct   | K2a                  | F1                     | J                 | Evermann and Meek (1898), McGuire (1898), Van Duzen (1903), Parkhurst (1950a), Toner (1960), Fulton (1970), Mullan (1986), Cramer (1990), Nehlsen et al. (1991), Fryer (1995), Interior Columbia Basin TRT (2005) |
| <b>L. Upper-Snake River</b>                            |   |                      |                        |                   |   |
| Big Payette Lake                                       | Anadromous form extinct                           | L1a                  | F1                     | K                 | Evermann (1896, 1897), Rathbun (1896), Parkhurst (1950b), Fulton (1970), Mullan (1986), Nehlsen et al. (1991), Fryer (1995), Interior Columbia Basin TRT (2005)   |
| Upper Payette Lake                                     | Extinct   | L1a                  | F1                     | K                 | Mullan (1986), Interior Columbia Basin TRT (2005)   |
| Little Payette Lake                                    | Extinct (original population existence uncertain) | L1a                  | F1                     | K                 | Evermann (1896), Parkhurst (1950b), Fulton (1970), Mullan (1986), Interior Columbia Basin TRT (2005)  |
| <b>M. Columbia River Headwaters</b>                    |   |                      |                        |                   |   |
| Upper Arrow Lake (beach spawners)                      | Anadromous form extinct                           | M3a                  | E1b                    | N                 | Bryant and Parkhurst (1950), Fulton (1970), Mullan (1986), Nehlsen et al. (1991), Fryer (1995)  |
| Upper Arrow Lake (inlet spawners, Kuskanax Creek, etc) | Anadromous form extinct                           | M3a                  | E1a                    | N                 | Chapman (1943)  |
| Lower Arrow Lake                                       | Anadromous form extinct                           | M3a                  | E1                     | N                 | Bryant and Parkhurst (1950), Simpson (1968), Fulton (1970), Mullan (1986), Nehlsen et al. (1991), Fryer (1995)  |
| Whatshan Lake  | Anadromous form extinct                           | M3a                  | E1                     | N                 | Fulton (1970), Mullan (1986), Nehlsen et al. (1991), Fryer (1995)   |
| Kinbasket Lake   | Extinct   | M3a                  | E1                     | N                 | Fulton (1970), Mullan (1986), Fryer (1995)  |
| Windermere Lake  | Extinct   | M3a                  | E1                     | N                 | Fulton (1970), Mullan (1986), Fryer (1995)  |

| <b>Sockeye salmon population</b> | <b>Population status</b> | <b>Diversity category</b>   |                               |                          | <b>Reference</b>  |
|----------------------------------|--------------------------|-----------------------------|-------------------------------|--------------------------|---|
|                                  |                          | <b>Ecological diversity</b> | <b>Life history diversity</b> | <b>Genetic Diversity</b> |   |
| Columbia Lake                    | Extinct                  | M3a                         | E1                            | N                        | Fulton (1970), Mullan (1986), Fryer (1995)                        |
| Slocan Lake                      | Anadromous form extinct  | M1a                         | E1                            | N                        | Fulton (1970), Mullan (1986), Nehlsen et al. (1991), Fryer (1995) |

Appendix Table 4. Proposed historic demographically independent coho salmon populations sorted by major (level-I) ecological region. Each population is characterized according to its perceived current population status and historic biodiversity. Ecological, life history and genetic diversity are characterized using the hierarchical diversity matrix (see Appendix S1).

| Coho salmon population   | Population status | Diversity category   |                        |                   | Reference                               |
|--|-------------------|----------------------|------------------------|-------------------|---|
|  |                   | Ecological diversity | Life history diversity | Genetic Diversity |   |
| <b>A. Georgia Basin</b>  |                   |                      |                        |                   |   |
| STRAIT OF GEORGIA (Mainland)   |                   |                      |                        |                   |   |
| Squamish River   | Extant            | A1b                  | A1                     | A1a               | Hancock and Marshall (1986)             |
| Cheakamus River  | Extant            | A1b                  | A1                     | A1a               | Hancock and Marshall (1986)             |
| Seymour River  | Extant            | A2b                  | A1                     | A1a               | Hancock and Marshall (1986), DFO (1999) |
| Capilano River   | Extant            | A2b                  | A1                     | A1a               | Hancock and Marshall (1986), DFO (1999) |
| Brem River   | Extant            | A2b                  | A1                     | A1a               | Hancock and Marshall (1985c)            |
| Toba River   | Extant            | A2b                  | A1                     | A1a               | Hancock and Marshall (1985c)            |
| Sakinaw Lake system  | Extant            | A1                   | A1                     | A1a               | Marshall et al. (1976a)                 |
| Skwawka River  | Extant            | A2                   | A1                     | A1a               | Marshall et al. (1976a)                 |
| Tzoonie River  | Extant            | A2                   | A1                     | A1a               | Marshall et al. (1976a)                 |
| STRAIT OF GEORGIA (East coast Vancouver Island)  |                   |                      |                        |                   |   |
| Quinsam/Campbell rivers  | Extant            | A2                   | A1                     | A1a               | Marshall et al. (1977a)                 |
| Oyster River/Black Creek   | Extant            | A2                   | A1                     | A1a               | Brown et al. (1977)                     |
| Puntledge/Tsolum rivers  | Extant            | A2                   | A1                     | A1a               | Brown et al. (1977)                     |
| Little Qualicum/Qualicum rivers  | Extant            | A2                   | A1                     | A1a               | Brown et al. (1977)                     |
| Englishman River/ French Creek   | Extant            | A2                   | A1                     | A1a               | Brown et al. (1977)                     |
| Chemainus River  | Extant            | A1                   | A1                     | A1a               | Marshall et al. (1976b)                 |
| Nanaimo/Chase rivers   | Extant            | A1                   | A1                     | A1a               | Marshall et al. (1976b)                 |
| Cowichan/Koksilah rivers   | Extant            | A1                   | A1                     | A1a               | Marshall et al. (1976b)                 |
| LOWER FRASER RIVER   |                   |                      |                        |                   |   |
| Small south shore Lower Fraser River tributaries from mouth to Hope (Salmon River, Atchelitz/ Dunville/Elk/Popkum/Lonzo/ Nathan/Lorenzetta/Wahleach creeks, Wahleach/Hope sloughs) | Extant            | A1                   | A1                     | A1a               | Marshall et al. (1980b), DFO (1999)     |

| Coho salmon population   | Population status | Diversity category   |                        |                   | Reference   |
|--|-------------------|----------------------|------------------------|-------------------|---|
|  |                   | Ecological diversity | Life history diversity | Genetic Diversity |   |
| Sumas/Chilliwack-Vedder rivers   | Extant            | A2                   | A1                     | A1a               | Marshall et al. (1980b), DFO (1999)                         |
| Fraser River from near Hope to Hell's Gate (Coquihalla River/Kawkawa/Silverhope/Yale/Spuzzum/American creeks)                                      | Extant            | A2                   | A1                     | A1a               | Marshall et al. (1980b), DFO (1999)                         |
| Lower Pitt River and tributaries/Coquitlam River (Alouette/North Alouette rivers)  | Extant            | A2a                  | A1                     | A1a               | Hancock and Marshall (1985a)                                |
| Upper Pitt River   | Extant            | A2a                  | A1                     | A1a               | Hancock and Marshall (1985a)                                |
| Stave River  | Extant            | A2a                  | A1                     | A1a               | Hancock and Marshall (1985b), DFO (1999)                    |
| Small north shore Lower Fraser River tributaries from mouth to below Stave River (Brunette River, Musqueem/Kanaka/Whonnock creeks)                 | Extant            | A1                   | A1                     | A1a               | Hancock and Marshall (1985a), DFO (1999)                    |
| Small north shore Lower Fraser River tributaries from Stave River to Hope (Nicomen/Mountain/Maria Sloughs, Ruby/Silverdale/ Mahood/Norrish creeks) | Extant            | A1                   | A1                     | A1a               | Hancock and Marshall (1985b), DFO (1999)                    |
| Harrison/Chehalis rivers, Weaver Creek, Lower Harrison Lake tributaries (Cogburn/Big Silver/ Mystery/Trout Lake/Twenty Mile creeks)                | Extant            | A2a                  | A1                     | A1a               | Hancock and Marshall (1985b), DFO (1999)                    |
| Lillooet/Birkenhead rivers   | Extant            | A2                   | A1                     | A1a               | Brown et al. (1979a), DFO (1999)                            |
| PUGET SOUND  |                   |                      |                        |                   |   |
| Nooksack River   | Extant            | A2a                  | A1                     | A1b               | Nehlsen et al. (1991), WDF et al. (1993)                    |
| North Puget Sound tributaries and Samish River (Nicomekl/ Serpentine/Campbell rivers)  | Extant            | A1a                  | A1                     | A1b               | Hancock and Marshall (1985a), WDF et al. (1993), DFO (1999) |
| Main Skagit River  | Extant            | A2a                  | A1                     | A1b               | WDF et al. (1993), Weitkamp et al. (1995)                   |
| Baker River  | Extant            | A2a                  | A1                     | A1b               | WDF et al. (1993), Weitkamp et al. (1995)                   |
| Stillaguamish River  | Extant            | A2a                  | A1                     | A1b               | WDF et al. (1993), Weitkamp et al. (1995)                   |
| Stillaguamish River early (Deer Creek)   | Extant            | A2a                  | A1                     | A1b               | Weitkamp et al. (1995)                                      |
| Lower Snohomish River tributaries  | Extant            | A2a                  | A1                     | A1b               | Weitkamp et al. (1995)                                      |
| Skykomish River  | Extant            | A2a                  | A1                     | A1b               | Weitkamp et al. (1995)                                      |
| Snoqualmie River   | Extant            | A2a                  | A1                     | A1b               | Weitkamp et al. (1995)                                      |

| Coho salmon population  | Population status | Diversity category   |                        |                   | Reference                                   |
|---|-------------------|----------------------|------------------------|-------------------|---|
|   |                   | Ecological diversity | Life history diversity | Genetic Diversity |   |
| Lake Washington tributaries, Cedar River                                      | Extant            | A2a                  | A1                     | A1b               | WDF et al. (1993), Weitkamp et al. (1995)   |
| Duwamish/Green rivers   | Extant            | A2a                  | A1                     | A1b               | WDF et al. (1993), Weitkamp et al. (1995)   |
| Puyallup River  | Extant            | A2a                  | A1                     | A1b               | WDF et al. (1993), Weitkamp et al. (1995)   |
| White River   | Extant            | A2a                  | A1                     | A1b               | Weitkamp et al. (1995)                      |
| Nisqually River   | Extant            | A2a                  | A1                     | A1b               | WDF et al. (1993), Weitkamp et al. (1995)   |
| South Sound small tributaries   | Extant            | A1b                  | A1                     | A1b               | WDF et al. (1993), Weitkamp et al. (1995)   |
| East Kitsap Peninsula small tributaries                                       | Extant            | A1b                  | A1                     | A1b               | WDF et al. (1993), Weitkamp et al. (1995)   |
| <b>HOOD CANAL</b>   |                   |                      |                        |                   |   |
| Eastern Hood Canal tributaries (Dewatto/Tahuya/ Union rivers, Big Beef Creek) | Extant            | A1b                  | A1                     | A1b               | WDF et al. (1993), Weitkamp et al. (1995)   |
| Skokomish River   | Extant            | A2a                  | A1                     | A1b               | WDF et al. (1993), Weitkamp et al. (1995)   |
| Southwest Hood Canal tributaries and Hamma Hamma River                        | Extant            | A2b                  | A1                     | A1b               | WDF et al. (1993), Weitkamp et al. (1995)   |
| Duckabush/Dosewallips/Quilcene/ Little Quilcene rivers                        | Extant            | A2b                  | A1                     | A1b               | WDF et al. (1993), Weitkamp et al. (1995)   |
| <b>STRAIT OF JUAN DE FUCA</b>   |                   |                      |                        |                   |   |
| Chimacum Creek, Discovery/ Sequim bays  | Extant            | A1b                  | A1                     | A1b               | WDF et al. (1993), Weitkamp et al. (1995)   |
| Dungeness River   | Extant            | A2a                  | A1                     | A1b               | WDF et al. (1993), Weitkamp et al. (1995)   |
| Elwha River   | Extant            | A2b                  | A1                     | A1b               | WDF et al. (1993), Weitkamp et al. (1995)   |
| <b>B. Coastal Rainforest</b>  |                   |                      |                        |                   |   |
| <b>WEST COAST VANCOUVER ISLAND</b>  |                   |                      |                        |                   |   |
| Gordon River  | Extant            | B1                   | A2                     | A5                | Marshall et al. (1977b)                     |
| San Juan River  | Extant            | B1                   | A2                     | A5                | Brown et al. (1979b), Beacham et al. (2001) |
| Nitinat River   | Extant            | B1                   | A2                     | A5                | Brown et al. (1979b), Beacham et al. (2001) |
| Somass River  | Extant            | B2a                  | A2                     | A5                | Brown et al. (1979b), Beacham et al. (2001) |
| Barkley Sound   | Extant            | B1                   | A2                     | A5                | Brown et al. (1979b), Beacham et al. (2001) |
| Clayoquot Sound   | Extant            | B1                   | A2                     | A5                | Brown et al. (1979c), Beacham et al. (2001) |
| Kennedy River   | Extant            | B1                   | A2                     | A5                | Brown et al. (1979c), Beacham et al. (2001) |
| Tlupana Inlet (Sucwoa, Conuma, Tlupana rivers)                                | Extant            | B1                   | A2                     | A5                | Brown et al. (1979e)                        |
| Tahsis / Leiner rivers (Tahsis Inlet)   | Extant            | B1                   | A2                     | A5                | Brown et al. (1979e)                        |

| Coho salmon population   | Population status | Diversity category   |                        |                   | Reference  |
|--|-------------------|----------------------|------------------------|-------------------|--|
|  |                   | Ecological diversity | Life history diversity | Genetic Diversity |  |
| Gold River (Muchalat Inlet)                                      | Extant            | B1                   | A2                     | A5                | Brown et al. (1979e)   |
| Tahsish River (Kyuquot Sound)                                    | Extant            | B1                   | A2                     | A5                | Marshall et al. (1980a)  |
| Marble River (Quatsino Sound)                                    | Extant            | B1                   | A2                     | A5                | Brown et al. (1979d)   |
| San Josef River  | Extant            | B1                   | A2                     | A5                | Brown et al. (1979d)   |
| <b>OLYMPIC PENINSULA</b>   |                   |                      |                        |                   |  |
| Hoko River   | Extant            | B1b                  | A1                     | A1c               | WDF et al. (1993), Weitkamp et al. (1995)                              |
| Sooes River  | Extant            | B1b                  | A2                     | A1c               | WDF et al. (1993)  |
| Ozette River   | Extant            | B1a                  | A2                     | A1c               | WDF et al. (1993), Weitkamp et al. (1995)                              |
| Soleduck River (summer)  | Extant            | B2a                  | A2                     | A1c               | WDF et al. (1993), Weitkamp et al. (1995)                              |
| Soleduck River (fall)  | Extant            | B2a                  | A2                     | A1c               | WDF et al. (1993), Weitkamp et al. (1995)                              |
| Dickey River (fall)  | Extant            | B1a                  | A2                     | A1c               | WDF et al. (1993)  |
| Calawah/Bogachiel rivers (fall)                                  | Extant            | B1b                  | A2                     | A1c               | WDF et al. (1993), Weitkamp et al. (1995)                              |
| Hoh River  | Extant            | B2b                  | A2                     | A1c               | WDF et al. (1993), Weitkamp et al. (1995)                              |
| Queets/Clearwater rivers   | Extant            | B2b                  | A2                     | A1c               | WDF et al. (1993), Weitkamp et al. (1995)                              |
| Quinault River   | Extant            | B2a                  | A2                     | A1c               | WDF et al. (1993), Weitkamp et al. (1995)                              |
| <b>C. Northern Coastal (Southwest Washington to Cape Blanco)</b> |                   |                      |                        |                   |  |
| <b>WASHINGTON</b>  |                   |                      |                        |                   |  |
| Humtulsips/Hoquiam/Wishkah rivers and South Bay tributaries      | Extant            | C2b                  | A2                     | A2b               | WDF et al. (1993), Weitkamp et al. (1995)                              |
| Upper Chehalis River   | Extant            | C2a                  | A2                     | A2b               | WDF et al. (1993), Weitkamp et al. (1995)                              |
| Wynoochee/Satsop rivers  | Extant            | C2a                  | A2                     | A2b               | WDF et al. (1993)  |
| North/Willapa/Palix rivers                                       | Extant            | C2b                  | A2                     | A2b               | Phinney and Bucknell (1975), WDF et al. (1993), Weitkamp et al. (1995) |
| Nemah/Naselle/Bear rivers  | Extant            | C2b                  | A2                     | A2b               | WDF et al. (1993), Weitkamp et al. (1995)                              |
| <b>COLUMBIA RIVER</b>  |                   |                      |                        |                   |  |
| Grays River late run   | Extinct           | C1                   | A3                     | A2a               | Myers et al. (2006)  |
| Youngs Bay late run  | Extinct           | C1                   | A3                     | A2a               | Myers et al. (2006)  |
| Big Creek late run   | Extinct           | C1                   | A3                     | A2a               | Myers et al. (2006)  |
| Elochoman River late run   | Extinct           | C1                   | A3                     | A2a               | Myers et al. (2006)  |
| Mill Creek (Washington) late run                                 | Extinct           | C1                   | A3                     | A2a               | Myers et al. (2006)  |
| Clatskanie River late run  | Extinct           | C1                   | A3                     | A2a               | Myers et al. (2006)  |



| Coho salmon population                 | Population status | Diversity category   |                        |                   | Reference              |
|--|-------------------|----------------------|------------------------|-------------------|------------------------|
|  |                   | Ecological diversity | Life history diversity | Genetic Diversity |                        |
| <b>OREGON</b>                          |                   |                      |                        |                   |                        |
| Necanicum River                        | Extant            | C4                   | A4                     | A3                | Lawson et al. (2004)   |
| Nehalem River                          | Extant            | C2b                  | A4                     | A3                | Lawson et al. (2004)   |
| Tillamook Bay                          | Extant            | C2b                  | A4                     | A3                | Lawson et al. (2004)   |
| Nestucca River                         | Extant            | C2b                  | A4                     | A3                | Lawson et al. (2004)   |
| Salmon River                           | Extant            | C4                   | A4                     | A3                | Lawson et al. (2004)   |
| Siletz Bay                             | Extant            | C2b                  | A4                     | A3                | Lawson et al. (2004)   |
| Yaquina River                          | Extant            | C2b                  | A4                     | A3                | Lawson et al. (2004)   |
| Beaver Creek                           | Extant            | C4                   | A4                     | A3                | Lawson et al. (2004)   |
| Alsea River                            | Extant            | C2b                  | A4                     | A3                | Lawson et al. (2004)   |
| Siuslaw River                          | Extant            | C2b                  | A4                     | A3                | Lawson et al. (2004)   |
| Siltcoos River/Lake                    | Extant            | C3                   | A4                     | A3                | Lawson et al. (2004)   |
| Tahkenitch Creek/River                 | Extant            | C3                   | A4                     | A3                | Lawson et al. (2004)   |
| Tennile Creek/Lake                     | Extant            | C3                   | A4                     | A3                | Lawson et al. (2004)   |
| Lower Umpqua River                     | Extant            | C2a                  | A4                     | A3                | Lawson et al. (2004)   |
| Upper Umpqua River                     | Extant            | C2a                  | A4                     | A3                | Lawson et al. (2004)   |
| Coos Bay                               | Extant            | C2b                  | A4                     | A3                | Lawson et al. (2004)   |
| Coquille River                         | Extant            | C4                   | A4                     | A3                | Lawson et al. (2004)   |
| Floras Creek                           | Extant            | C4                   | A4                     | A3                | Lawson et al. (2004)   |
| Sixes River                            | Extant            | C4                   | A4                     | A3                | Lawson et al. (2004)   |
| <b>D. Klamath Mountains Province</b>   |                   |                      |                        |                   |                        |
| Elk River                              | Extant            | D3                   | A5                     | A4                | Williams et al. (2006) |
| Illinois River (Rogue River)           | Extant            | D1                   | A5                     | A4                | Williams et al. (2006) |
| Middle Rogue River and Applegate River | Extant            | D1                   | A5                     | A4                | Williams et al. (2006) |
| Upper Rogue River                      | Extant            | D1                   | A5                     | A4                | Williams et al. (2006) |
| Chetco River                           | Extant            | D3                   | A5                     | A4                | Williams et al. (2006) |
| <b>CALIFORNIA</b>                      |                   |                      |                        |                   |                        |
| Smith River                            | Extant            | D3                   | A5                     | A4                | Williams et al. (2006) |
| Lower Klamath River                    | Extant            | D2                   | A5                     | A4                | Williams et al. (2006) |
| Upper Klamath River                    | Extant            | D2                   | A5                     | A4                | Williams et al. (2006) |
| Shasta River                           | Extant            | D2                   | A5                     | A4                | Williams et al. (2006) |

| Coho salmon population  | Population status                                 | Diversity category   |                        |                   | Reference  |
|---|---|----------------------|------------------------|-------------------|--|
|   |   | Ecological diversity | Life history diversity | Genetic Diversity |  |
| Scott River   | Extant  | D2                   | A5                     | A4                | Williams et al. (2006)   |
| South Fork Trinity River  | Extant  | D2                   | A5                     | A4                | Williams et al. (2006)   |
| Upper Trinity River   | Extinct   | D2                   | A5                     | A4                | Williams et al. (2006)   |
| <b>E. Northern California (South of Klamath River to San Lorenzo River)</b> |   |                      |                        |                   |  |
| Redwood Creek   | Extant  | E1                   | A5                     | A4                | Williams et al. (2006)   |
| Mad River   | Extant  | E1                   | A5                     | A4                | Williams et al. (2006)   |
| Humboldt Bay tributaries  | Extant  | E1                   | A5                     | A4                | Williams et al. (2006)   |
| Lower Eel River and Van Duzen River   | Extant  | E1                   | A5                     | A4                | Williams et al. (2006)   |
| South Fork Eel River  | Extant  | E1                   | A5                     | A4                | Williams et al. (2006)   |
| Middle Mainstem Eel River   | Extant  | E1                   | A5                     | A4                | Williams et al. (2006)   |
| Mattole River   | Extant  | E1                   | A5                     | A4                | Williams et al. (2006)   |
| Ten Mile River  | Extant  | E2                   | A6                     | B                 | Bjorkstedt et al. (2005)   |
| Noyo River  | Extant  | E2                   | A6                     | B                 | Bjorkstedt et al. (2005)   |
| Big River   | Extant  | E2                   | A6                     | B                 | Bjorkstedt et al. (2005)   |
| Navarro River   | Extant  | E2                   | A6                     | B                 | Bjorkstedt et al. (2005)   |
| Albion River  | Extant  | E2                   | A6                     | B                 | Bjorkstedt et al. (2005)   |
| Garcia River  | Extant  | E2                   | A6                     | B                 | Bjorkstedt et al. (2005)   |
| Gualala River   | Extant  | E2                   | A6                     | B                 | Bjorkstedt et al. (2005)   |
| Russian River   | Extinct   | E2                   | A6                     | B                 | Bjorkstedt et al. (2005)   |
| Lagunitas Creek   | Extant  | E2                   | A6                     | B                 | Bjorkstedt et al. (2005)   |
| San Gregorio Creek  | Extinct   | E2                   | A6                     | B                 | Bjorkstedt et al. (2005)   |
| Pescadero Creek   | Extinct   | E2                   | A6                     | B                 | Bjorkstedt et al. (2005)   |
| San Lorenzo River   | Extinct   | E2                   | A6                     | B                 | Bjorkstedt et al. (2005)   |
| <b>F. Southern California</b>   |   |                      |                        |                   |  |
| Pajaro River  | Extinct   | F1                   | A6                     | B                 | Pacific Rivers Council et al. (1993), Bryant (1994), Anderson (1995) |
| Salinas River   | Extinct (original population existence uncertain) | F1                   | A6                     | B                 | Pacific Rivers Council et al. (1993)                                 |

| Coho salmon population                                     | Population status                                 | Diversity category   |                        |                   | Reference   |
|--|---|----------------------|------------------------|-------------------|---|
|  |   | Ecological diversity | Life history diversity | Genetic Diversity |   |
| Carmel and Big Sur rivers                                  | Extinct (original population existence uncertain) | F1                   | A6                     | B                 | Pacific Rivers Council et al. (1993), Bryant (1994), Moyle et al. (1995)  |
| <b>G. California Central Valley</b>                        |   |                      |                        |                   |   |
| Sacramento River (late)                                    | Extinct (original population existence uncertain) | G3                   | C                      | D                 | Jordan and Gilbert (1882), Jordan and Jouy (1882), Eigenmann (1890), Brown and Moyle (1991), Pacific Rivers Council et al. (1993), Brown et al. (1994), Bryant (1994), Weitkamp et al. (1995) |
| Sacramento River (early)                                   | Extinct (original population existence uncertain) | G1                   | C                      | D                 | Jordan and Gilbert (1882), Jordan and Jouy (1882), Eigenmann (1890), Brown and Moyle (1991), Pacific Rivers Council et al. (1993), Brown et al. (1994), Bryant (1994)                         |
| <b>H. Willamette River Valley and Lower Columbia River</b> |   |                      |                        |                   |   |
| Scappoose Creek late run                                   | Extant  | H3                   | A3                     | A2a               | Myers et al. (2006)   |
| Lower Cowlitz River late run                               | Extant  | H2                   | A3                     | A2a               | Myers et al. (2006)   |
| Upper Cowlitz River early and late runs                    | Extinct   | H2                   | A3                     | A2a               | Myers et al. (2006)   |
| North Fork Toutle (Green) River early and late runs        | Extant  | H2                   | A3                     | A2a               | Myers et al. (2006)   |
| South Fork Toutle River early and late runs                | Extant  | H2                   | A3                     | A2a               | Myers et al. (2006)   |
| Cispus River early and late runs                           | Extinct   | H2                   | A3                     | A2a               | Myers et al. (2006)   |
| Tilton River early and late runs                           | Extinct   | H2                   | A3                     | A2a               | Myers et al. (2006)   |
| Coweeman River late run                                    | Extant  | H2                   | A3                     | A2a               | Myers et al. (2006)   |
| Kalama River late run                                      | Extant  | H2                   | A3                     | A2a               | Myers et al. (2006)   |
| North Fork Lewis River early and late runs                 | Extant  | H2                   | A3                     | A2a               | Myers et al. (2006)   |
| East Fork Lewis River early and late runs                  | Extant  | H2                   | A3                     | A2a               | Myers et al. (2006)   |
| Salmon Creek late run                                      | Extant  | H2                   | A3                     | A2a               | Myers et al. (2006)   |
| Washougal River early and late runs                        | Extant  | H2                   | A3                     | A2a               | Myers et al. (2006)   |
| Clackamas River early and late runs                        | Extant  | H2                   | A3                     | A2a               | Myers et al. (2006)   |

| Coho salmon population   | Population status | Diversity category   |                        |                   | Reference   |
|--|-------------------|----------------------|------------------------|-------------------|---|
|  |                   | Ecological diversity | Life history diversity | Genetic Diversity |   |
| Sandy River early and late runs                                      | Extant            | H2                   | A3                     | A2a               | Myers et al. (2006)   |
| Lower Columbia Gorge Tributaries early run                           | Extinct           | H3                   | A3                     | A2a               | Myers et al. (2006)   |
| Washington Upper Gorge Tributaries and White Salmon River early run  | Extinct           | H3                   | A3                     | A2a               | Myers et al. (2006)   |
| Oregon Upper Gorge Tributaries and Hood River early run              | Extinct           | H3                   | A3                     | A2a               | Myers et al. (2006)   |
| Chenoweth/Mill/Fifteenmile creeks                                    | Extinct           | H3                   | A3                     | A2a               | Haas and Warren (1961), Nehlsen et al. (1991), Kostow (1995)  |
| <b>I. Mid-Columbia River</b>   |                   |                      |                        |                   |   |
| Upper mainstem Yakima/Cle Elum/Kachess rivers                        | Extinct           | I2                   | B                      | C1                | Wahle and Pearson (1984), Fulton (1970), Mullan (1984), Nehlsen et al. (1991)                           |
| Lower mainstem Yakima River and tributaries (Umptanum/Taneum creeks) | Extinct           | I2                   | B                      | C1                | Bryant and Parkhurst (1950), Fulton (1970)  |
| Naches River   | Extinct           | I2                   | B                      | C1                | Fulton (1970)   |
| Teanaway River   | Extinct           | I2                   | B                      | C1                |   |
| Umatilla River   | Extinct           | I1                   | B                      | C1                | Van Duzen (1903), Nehlsen et al. (1991)   |
| Lower Walla Walla River  | Extinct           | I1                   | B                      | C1                | Fulton (1970), Horner and Bjornn (1981), Cramer (1990), Nehlsen et al. (1991)                           |
| Touchet River  | Extinct           | I1                   | B                      | C1                | Parkhurst (1950a), Horner and Bjornn (1981), Cramer (1990)  |
| Deschutes River  | Extinct           | I1                   | B                      | C1                | Olsen et al. (1992)   |
| Upper mainstem John Day River  | Extinct           | I1                   | B                      | C1                | Van Duzen (1903), Fulton (1970)   |
| North Fork/Middle Fork John Day River                                | Extinct           | I1                   | B                      | C1                | Haas and Warren (1961), Fulton (1970)   |
| <b>J. Upper-Columbia River</b>                                       |                   |                      |                        |                   |   |
| Mainstem Wenatchee River (early)                                     | Extinct           | J1                   | B                      | C2                | Craig and Suomela (1941), Fulton (1970), Wahle and Pearson (1984), Mullan (1984), Nehlsen et al. (1991) |
| Icicle Creek   | Extinct           | J1                   | B                      | C2                | Fulton (1970)   |
| Nason Creek  | Extinct           | J1                   | B                      | C2                | Bryant and Parkhurst (1950), French and Wahle (1960, 1965), Fulton (1970)                               |
| Entiat River   | Extinct           | J1                   | B                      | C2                | Craig and Suomela (1941), Fulton (1970), Mullan (1984), Wahle and Pearson (1984), Nehlsen et al. (1991) |

| Coho salmon population      | Population status                                 | Diversity category   |                        |                   | Reference  |
|-----------------------------|---|----------------------|------------------------|-------------------|--|
|                             |   | Ecological diversity | Life history diversity | Genetic Diversity |  |
| Lower Methow River (early)  | Extinct   | J1                   | B                      | C2                | Craig and Suomela (1941), French and Wahle (1960), Mullan (1984), Nehlsen et al. (1991)                            |
| Lower Twisp River           | Extinct   | J1                   | B                      | C2                | Bryant and Parkhurst (1950), French and Wahle (1960, 1965), Fulton (1970)  |
| Okanogan River (early)      | Extinct   | J2                   | B                      | C2                | Mullan (1984)  |
| Sanpoil River               | Extinct (original population existence uncertain) | J4                   | B                      | C2                |  |
| Lower Spokane River         | Extinct   | J5                   | B                      | C2                | Bryant and Parkhurst (1950), Fulton (1970), Horner and Bjornn (1981), Scholz et al. (1985), Nehlsen et al. (1991)  |
| Little Spokane River        | Extinct   | J5                   | B                      | C2                | Bryant and Parkhurst (1950), Fulton (1970), Scholz et al. (1985)   |
| <b>K. Lower Snake River</b> |   |                      |                        |                   |  |
| Tucannon River              | Extinct   | K2                   | B                      | C3                | Parkhurst (1950a), Fulton (1970), Horner and Bjornn (1981), Nehlsen et al. (1991), Lichatowich et al. (1993)       |
| Lower Grande Ronde River    | Extinct   | K2                   | B                      | C3                | Van Duzen (1903), Parkhurst (1950a), Fulton (1970), Horner and Bjornn (1981), Cramer (1990), Nehlsen et al. (1991) |
| Wenaha River                | Extinct   | K2                   | B                      | C3                | Fulton (1970), Cramer (1990)   |
| Catherine Creek             | Extinct   | K2                   | B                      | C3                | Fulton (1970), Cramer (1990)   |
| Minam River                 | Extinct   | K2                   | B                      | C3                | Fulton (1970), Cramer (1990)   |
| Wallowa /Lostine rivers     | Extinct   | K2                   | B                      | C3                | Horner and Bjornn (1981), Fulton (1970), Cramer (1990), Nehlsen et al. (1991)                                      |
| Clearwater River            | Extinct   | K1                   | B                      | C3                | Parkhurst (1950a), Horner and Bjornn (1981), Fulton (1970), Nehlsen et al. (1991)                                  |

Appendix Table 5. Proposed historic demographically independent chum salmon populations sorted by major (level-I) ecological region. Each population is characterized according to its perceived current population status and historic biodiversity. Ecological, life history and genetic diversity are characterized using the hierarchical diversity matrix (see Appendix S1).

| Chum salmon population   | Population status | Diversity category   |                        |                   | Reference   |
|--|-------------------|----------------------|------------------------|-------------------|---|
|  |                   | Ecological diversity | Life history diversity | Genetic Diversity |   |
| <b>A. Georgia Basin</b>  |                   |                      |                        |                   |   |
| STRAIT OF GEORGIA (Mainland)   |                   |                      |                        |                   |   |
| Squamish River, Ashlu Creek  | Extant            | A2b                  | A1                     | A1                | Hancock and Marshall (1986)                           |
| Cheakamus River  | Extant            | A2b                  | A1                     | A1                | Hancock and Marshall (1986)                           |
| Mamquam/Stawamus rivers  | Extant            | A2b                  | A1                     | A1                | Hancock and Marshall (1986)                           |
| East side Strait of Georgia intertidal spawners (Wakefield/Wilson creeks)  | Extant            | A1                   | A1d                    | A1                | Hancock and Marshall (1986)                           |
| Sechelt to Howe Sound (Rainy River, Chapman/Chaster/Dakota/Flume/Langdale/Long Bay/McNab/Quillet/Potlatch/Roberts/Twin/West Bay/Williamson creeks) (Furry Creek - extinct) | Extant            | A1                   | A1                     | A1                | Hancock and Marshall (1986)                           |
| North Shore Burrard Inlet (Indian/Seymour/Capilano rivers, Lynn/Brothers/Eagle/Nelson creeks)  | Extant            | A2b                  | A1                     | A1                | Hancock and Marshall (1986), DFO (1999)               |
| South Shore Burrard Inlet (China/False creeks, unnamed creeks at Jericho Beach/Spanish Banks/Kitsilano Beach, etc)   | Extinct           | A1a                  | A1                     | A1                | Harris (1978)   |
| Brem River   | Extant            | A2b                  | A1                     | A1                | Hancock and Marshall (1985c)                          |
| Kilte/Tahumming rivers   | Extant            | A2b                  | A1                     | A1                | Hancock and Marshall (1985c)                          |
| Toba/Little Toba rivers  | Extant            | A2b                  | A1                     | A1                | Hancock and Marshall (1985c)                          |
| Malaspina Strait (Lois River, Sliammon/Dayton/Jefferd/Kelly/Lang/Myrtle/ Saltery Bay/ Whittal/West Lake/Pender Harbour creeks, Sakinaw Lake system)                        | Extant            | A1                   | A1                     | A1                | Marshall et al. (1976a), Hancock and Marshall (1985c) |

| Chum salmon population   | Population status | Diversity category   |                        |                   | Reference                                     |
|--|-------------------|----------------------|------------------------|-------------------|---|
|  |                   | Ecological diversity | Life history diversity | Genetic Diversity |   |
| Desolation Sound (Theodosia River, Okeover/Forbes/Forbes Bay/Pendrell Sound/Salt Lagoon creeks)                          | Extant            | A1                   | A1                     | A1                | Hancock and Marshall (1985c)                  |
| Sechelt Inlet (Angus/Carlson/Doriston/Gray/Sechelt /Snake Bay/Storm Bay creeks)  | Extant            | A1                   | A1                     | A1                | Marshall et al. (1976a)                       |
| Upper Jervis Inlet (Vancouver/Deserted/Brittain/Skwawka rivers)  | Extant            | A2                   | A1                     | A1                | Marshall et al. (1976a)                       |
| Tzoonie River  | Extant            | A2                   | A1                     | A1                | Marshall et al. (1976a)                       |
| STRAIT OF GEORGIA (East coast Vancouver Island)  |                   |                      |                        |                   |   |
| Tributaries to Baynes Sound (Tsable River, Chef/Cook/Cowie/Hart/McNaughton/Rosewall/Waterloo/Wilfred creeks)             | Extant            | A1                   | A1                     | A1                | Brown et al. (1977)                           |
| Comox Harbour to south end of Discovery Passage (Oyster/ Quinsam/Campbell rivers)  | Extant            | A2                   | A1                     | A1                | Brown et al. (1977)                           |
| Trent/Puntledge/Tsolum rivers  | Extant            | A2                   | A1                     | A1                | Brown et al. (1977)                           |
| Nanoose Bay to south end of Baynes Sound (Englishman/Little Qualicum/Qualicum rivers, Nanoose/Bonell/French/Nile creeks) | Extant            | A2                   | A1                     | A1                | Marshall et al. (1976b), Brown et al. (1977)  |
| Chemainus River and small creeks from Cowichan Bay to Nanaimo River (Bonsall/Bush/ Holland/Stocking/Walker creeks)       | Extant            | A1                   | A1                     | A1                | Marshall et al. (1976b)                       |
| Nanaimo/Chase rivers   | Extant            | A1                   | A1                     | A1                | Marshall et al. (1976b)                       |
| Cowichan/Koksilah rivers   | Extant            | A1                   | A1b                    | A1                | Marshall et al. (1976b)                       |
| West side Strait of Georgia intertidal spawning (Fulford/Shawnigan creeks)   | Extant            | A1                   | A1d                    | A1                | Marshall et al. (1976b, 1977b)                |
| Goldstream River   | Extant            | A1                   | A1b                    | A1                | Marshall et al. (1977b)                       |
| Saanich Peninsula (Colquitz River, Sandhill/Bowker/ Craigflower creeks)  | Extinct           | A1                   | A1                     | A1                | Marshall et al. (1977b), Slaney et al. (1996) |
| LOWER FRASER RIVER   |                   |                      |                        |                   |   |
| Sumas/Chilliwack-Vedder rivers   | Extant            | A2a                  | A1                     | A7                | Marshall et al. (1980b)                       |

| Chum salmon population   | Population status | Diversity category   |                        |                   | Reference   |
|--|-------------------|----------------------|------------------------|-------------------|---|
|  |                   | Ecological diversity | Life history diversity | Genetic Diversity |   |
| Coquihalla River, Kawkawa/ Silverhope creeks   | Extant            | A2                   | A1a                    | A7                | Marshall et al. (1980b)                                     |
| Small south shore Lower Fraser River tributaries from mouth to Hope (Lonzo/Hunter/Lorenzetta/ Wahleach creeks, Wahleach Slough)                      | Extant            | A1b                  | A1a                    | A7                | Marshall et al. (1980b)                                     |
| Pitt River and tributaries (Alouette/North Alouette rivers, Blaney/Widgeon/MacIntyre creeks)   | Extant            | A2a                  | A1                     | A7                | Hancock and Marshall (1985a)                                |
| North shore Lower Fraser River tributaries (mouth to below Stave River) (Brunette/Coquitlam rivers, Kanaka/Whonnock creeks) (Musqueem River extinct) | Extant            | A1                   | A1                     | A7                | Harris (1978), Hancock and Marshall (1985a, b)              |
| Stave River  | Extant            | A2a                  | A1                     | A7                | Hancock and Marshall (1985b), DFO (1999)                    |
| Small north shore Lower Fraser River tributaries from Stave River to Hope (Nicomem/Mountain/ Maria Sloughs, Ruby/Silverdale/ Mahood/Norrish creeks)  | Extant            | A1                   | A1                     | A7                | Hancock and Marshall (1985b), DFO (1999)                    |
| Harrison/Chehalis rivers, Weaver Creek, Lower Harrison Lake tributaries (Cogburn/Big Silver/ Mystery/Trout Lake/Twenty Mile creeks)                  | Extant            | A2a                  | A1                     | A7                | Hancock and Marshall (1985b), DFO (1999)                    |
| <b>PUGET SOUND</b>   |                   |                      |                        |                   |   |
| Mainstem/South Fork Nooksack River (Fall)  | Extant            | A2a                  | A1b                    | A2                | WDF et al. (1993), Johnson et al. (1997)                    |
| North Fork Nooksack River (Fall)   | Extant            | A2a                  | A1b                    | A2                | WDF et al. (1993), Johnson et al. (1997)                    |
| North Puget Sound tributaries (Samish/Campbell/Nicomekl rivers)  | Extant            | A1b                  | A1b                    | A2                | Hancock and Marshall (1985a), WDF et al. (1993), DFO (1999) |
| Mainstem Skagit River (fall)   | Extant            | A2a                  | A1b                    | A2                | WDF et al. (1993), Johnson et al. (1997)                    |
| Lower Skagit River tributaries (early fall)  | Extant            | A2a                  | A1b                    | A2                | WDF et al. (1993)   |
| Sauk River (fall)  | Extant            | A2a                  | A1b                    | A2                | WDF et al. (1993), Johnson et al. (1997)                    |
| North Fork Stillaguamish River (fall)  | Extant            | A2a                  | A1b                    | A2                | WDF et al. (1993), Johnson et al. (1997)                    |
| South Fork Stillaguamish River (fall)  | Extant            | A2a                  | A1b                    | A2                | WDF et al. (1993), Johnson et al. (1997)                    |



| Chum salmon population   | Population status | Diversity category   |                        |                   | Reference   |
|--|-------------------|----------------------|------------------------|-------------------|---|
|  |                   | Ecological diversity | Life history diversity | Genetic Diversity |   |
| Skykomish/Wallace rivers (fall)  | Extant            | A2a                  | A1b                    | A2                | WDF et al. (1993)   |
| Snoqualmie River (fall)  | Extant            | A2a                  | A1b                    | A2                | WDF et al. (1993), Johnson et al. (1997)                        |
| Duwamish/Green rivers (fall)   | Extant            | A2a                  | A1b                    | A2                | WDF et al. (1993), Johnson et al. (1997)                        |
| Puyallup/Carbon rivers, Hylebos Creek (fall)   | Extant            | A2a                  | A1b                    | A2                | WDF et al. (1993)   |
| Nisqually River, Chambers Creek (winter)   | Extant            | A2a                  | A1c                    | A2                | WDF et al. (1993), Phelps et al. (1995), Johnson et al. (1997)  |
| Central Puget Sound tributaries (Blackjack Creek) (summer)   | Extant            | A1b                  | A1a                    | A2                | WDF et al. (1993), Phelps et al. (1995), Johnson et al. (1997)  |
| South Puget Sound tributaries (Case/Hammersley Inlets) (Chambers Creek-extinct) (summer)   | Extant            | A1b                  | A1a                    | A2                | Nehlsen et al. (1991), WDF et al. (1993), Phelps et al. (1995)  |
| South Puget Sound tributaries (Henderson/Eld/Totten/Skookum/Case/Carr inlets) (fall)   | Extant            | A1b                  | A1b                    | A2                | WDF et al. (1993), Phelps et al. (1995)                         |
| Central East Kitsap Peninsula (Gig Harbor/Olalla Creek/Dyes Inlet/Liberty Bay/Sinclair Inlet) (fall)   | Extant            | A1b                  | A1b                    | A2                | WDF et al. (1993), Phelps et al. (1995)                         |
| <b>HOOD CANAL</b>  |                   |                      |                        |                   |   |
| North-eastern Hood Canal tributaries (Dewatto River, Big Beef/Seabeck/Anderson/Stavis creeks) (summer)   | Extinct           | A1b                  | A1a                    | B1                | Phelps et al. (1995), Ames et al. (2000)                        |
| South Hood Canal tributaries (Union River) (Tahuya River, Mission Creek extinct) (summer)  | Extant            | A1b                  | A1a                    | B1                | Phelps et al. (1995), Johnson et al. (1997), Ames et al. (2000) |
| Western Hood Canal tributaries (Big Quilcene/Little Quilcene/Duckabush/Hamma Hamma/ Dosewallips rivers, Lilliwaup Creek) (Skokomish River, Eagle/ Finch/Fulton/Little Lilliwaup creeks extinct) (summer) | Extant            | A2b                  | A1a                    | B1                | Deschamps (1954), Phelps et al. (1995), Ames et al. (2000)      |
| Northeast Hood Canal, Dewato River (fall)  | Extant            | A1b                  | A1b                    | A2                | WDF et al. (1993), Johnson et al. (1997)                        |
| Southeast/West Hood Canal, Lower Skokomish River (fall)  | Extant            | A2b                  | A1b                    | A2                | WDF et al. (1993), Johnson et al. (1997)                        |

| Chum salmon population  | Population status | Diversity category   |                        |                   | Reference   |
|---|-------------------|----------------------|------------------------|-------------------|---|
|   |                   | Ecological diversity | Life history diversity | Genetic Diversity |   |
| Quilcene/Duckabush/ Dosewallips/Hamma Hamma rivers (late fall)  | Extant            | A2b                  | A1b                    | A2                | WDF et al. (1993), Johnson et al. (1997)                        |
| Upper Skokomish River (late fall)   | Extant            | A2b                  | A1c                    | A2                | Deschamps (1954), WDF et al. (1993), Johnson et al. (1997)      |
| <b>STRAIT OF JUAN DE FUCA</b>   |                   |                      |                        |                   |   |
| Strait of Juan de Fuca (Discovery/ Sequim bays) (Chimacum/ Johnson/Morse creeks extinct) (summer)   | Extant            | A1b                  | A1a                    | B2                | Ames et al. (2000)  |
| Dungeness/Elwha rivers, East Strait of Juan de Fuca tributaries (Elwha River may be extinct) (fall)   | Extant            | A2                   | A1b                    | A2                | Nehlsen et al. (1991), WDF et al. (1993), Johnson et al. (1997) |
| <b>B. Coastal Rainforest</b>  |                   |                      |                        |                   |   |
| <b>WEST COAST VANCOUVER ISLAND</b>  |                   |                      |                        |                   |   |
| Sooke Harbour to Port San Juan (Sooke/San Juan/Gordon rivers, Kirby/Muir/Tugwell/DeMamiel creeks) (Jordan River extinct)                                      | Extant            | B1                   | A2                     | A8                | Marshall et al. (1977b)   |
| Port San Juan to Cape Beale (Caycuse/Cheewhat/Nitinat/ Pachena/Klanawa rivers, Hobiton/ Doobah creeks)  | Extant            | B1                   | A2                     | A8                | Brown et al. (1979b)  |
| Barkley Sound (Somass/Sarita/ Toquart/Pipestem/Nahmint/ Maggie/Henderson/Effingham rivers)  | Extant            | B1                   | A2                     | A8                | Brown et al. (1979b)  |
| Amphitrite Point to Estevan Point (Clayoquot Sound, Atleo/ Bedwell/Cypre/Kennedy/ Kootowis/Megin/Moyeha/Sydney rivers)  | Extant            | B1                   | A2                     | A8                | Brown et al. (1979c)  |
| Estevan Point to Tatchu Point (Nootka Sound and Esperanza Inlet, Burman/Conuma/Gold/ Muchalat/Jacklah/Mooyah/ Sucwoa/Tahsis/Tlupana/ Tsowwin/Zeballos rivers) | Extant            | B1                   | A2                     | A8                | Brown et al. (1979e)  |

| Chum salmon population  | Population status | Diversity category   |                        |                   | Reference                                    |
|---|-------------------|----------------------|------------------------|-------------------|--|
|   |                   | Ecological diversity | Life history diversity | Genetic Diversity |  |
| Tatchu Point to Cape Cook (Kyuquot Sound and Checleset Bay, Artlish/Battle/Kaouk/Malksope/Nasparti/Ououkinsh/Power/Tahsish/Tatchu rivers) | Extant            | B1                   | A2                     | A8                | Marshall et al. (1980a)                      |
| Cape Cook to Cape Scott (Marble/Macjack/Rupert/Koprino/Klaskish/Keith/ Goodspeed rivers, etc.)  | Extant            | B1                   | A2                     | A8                | Brown et al. (1979d)                         |
| <b>OLYMPIC PENINSULA</b>  |                   |                      |                        |                   |  |
| Hoko/Clallam/Sekiu rivers (fall)  | Extant            | B1b                  | A3                     | A4                | WDF et al. (1993), Johnson et al. (1997)     |
| Pysht/Lyre rivers, Deep/East Twin/West Twin creeks (fall)   | Extant            | B1b                  | A3                     | A4                | WDF et al. (1993), Johnson et al. (1997)     |
| Sooes/Waatch rivers (fall)  | Extinct           | B1a                  | A3                     | A4                | WDF et al. (1993)                            |
| Ozette River (fall)   | Extant            | B1a                  | A3                     | A4                | Nehlsen et al. (1991), Johnson et al. (1997) |
| Quillayute River (fall)   | Extant            | B2a                  | A3                     | A4                | WDF et al. (1993), Johnson et al. (1997)     |
| Hoh River (fall)  | Extant            | B2b                  | A3                     | A4                | WDF et al. (1993), Johnson et al. (1997)     |
| Queets/Clearwater rivers (fall)   | Extant            | B2b                  | A3                     | A4                | WDF et al. (1993), Johnson et al. (1997)     |
| Quinault River (fall)   | Extant            | B2a                  | A3                     | A4                | WDF et al. (1993), Johnson et al. (1997)     |
| <b>C. Northern Coastal (Southwest Washington to Cape Blanco)</b>  |                   |                      |                        |                   |  |
| <b>WASHINGTON</b>   |                   |                      |                        |                   |  |
| Moclips/Copalis rivers  | Extant            | C4                   | A2                     | A4                | Phinney and Bucknell (1975)                  |
| Humtulpis/Hoquiam/Wishkah rivers (fall)   | Extant            | C2b                  | A2                     | A4                | WDF et al. (1993), Johnson et al. (1997)     |
| Chehalis River (Wynoochee/ Satsop/main Chehalis rivers) (fall)  | Extant            | C2a                  | A2                     | A4                | WDF et al. (1993), Johnson et al. (1997)     |
| North/Willapa/Palix rivers (fall)   | Extant            | C2b                  | A2                     | A4                | WDF et al. (1993), Johnson et al. (1997)     |
| Nemah/Naselle/Bear rivers (fall)  | Extant            | C2b                  | A2                     | A4                | WDF et al. (1993), Johnson et al. (1997)     |
| <b>COLUMBIA RIVER</b>   |                   |                      |                        |                   |  |
| Youngs Bay fall run   | Extinct           | C1                   | A2                     | A6                | Myers et al. (2006)                          |
| Grays River fall run  | Extant            | C1                   | A2                     | A6                | Myers et al. (2006)                          |
| Big Creek fall run  | Extinct           | C1                   | A2                     | A6                | Myers et al. (2006)                          |
| Elochoman River fall run  | Extinct           | C1                   | A2                     | A6                | Myers et al. (2006)                          |
| Clatskanie River fall run   | Extinct           | C1                   | A2                     | A6                | Myers et al. (2006)                          |

| Chum salmon population  | Population status                                 | Diversity category   |                        |                   | Reference   |
|---|---|----------------------|------------------------|-------------------|---|
|   |   | Ecological diversity | Life history diversity | Genetic Diversity |   |
| Mill Creek fall run   | Extinct   | C1                   | A2                     | A6                | Myers et al. (2006)   |
| <b>OREGON</b>   |   |                      |                        |                   |   |
| Necanicum River (fall)  | Extant  | C2b                  | A3                     | A5                | Kostow (1995), Jacobs et al. (2000)   |
| Nehalem River (fall)  | Extant  | C2b                  | A2                     | A5                | Kostow (1995), Jacobs et al. (2000)   |
| Tillamook/Netarts bays (Miami/Kilchis/Wilson/Trask/ Tillamook rivers, Netarts Bay tributaries) (fall) | Extant  | C2b                  | A2                     | A5                | Kostow (1995), Jacobs et al. (2000)   |
| Nestucca/Little Nestucca rivers, Neskowin Creek (fall)  | Extant  | C2b                  | A2                     | A5                | Kostow (1995), Jacobs et al. (2000)   |
| Salmon/Siletz rivers (fall)   | Extant  | C2b                  | A2                     | A5                | Kostow (1995, 2000)   |
| Yaquina River (fall)  | Extant  | C2b                  | A2                     | A5                | Kostow (1995, 2000)   |
| Alsea/Yachats rivers (fall)   | Extant  | C2b                  | A2                     | A5                | Kostow (1995, 2000)   |
| Siuslaw River (fall)  | Extant  | C2b                  | A2                     | A5                | Kostow (1995, 2000)   |
| Tributaries of Umpqua River Estuary (fall)  | Extinct   | C2b                  | A2                     | A5                | Kostow (1995, 2000)   |
| Tributaries of Coos Bay Estuary (fall)  | Extant  | C2b                  | A2                     | A5                | Kostow (1995, 2000), Jacobs et al. (2000)   |
| Coquille River (fall)   | Extinct   | C4                   | A3                     | A5                | Kostow (1995, 2000), Jacobs et al. (2000)   |
| <b>D. Klamath Mountains Province</b>  |   |                      |                        |                   |   |
| Cape Blanco to Klamath River (remnant may exist in Mill Creek on Smith River)                         | Extant  | D3                   | A2                     | C1                | Snyder (1908b), Nehlsen et al. (1991), Higgins et al. (1992), Frissel (1993), Moyle et al. (1995) |
| Klamath River   | Extinct (original population existence uncertain) | D2                   | A2                     | C1                | Snyder (1908b, 1931), Nehlsen et al. (1991), Frissel (1993), Moyle et al. (1995)                  |
| <b>E. Northern California (South of Klamath River to San Lorenzo River)</b>                           |   |                      |                        |                   |   |
| Coastal streams south of Klamath River  | Extinct (original population existence uncertain) | E1                   | A3                     | C1                | Snyder (1908b), Frissel (1993), Moyle et al. (1995)   |
| <b>G. California Central Valley</b>   |   |                      |                        |                   |   |

| Chum salmon population                                     | Population status                                 | Diversity category   |                        |                   | Reference   |
|--|---|----------------------|------------------------|-------------------|---|
|  |   | Ecological diversity | Life history diversity | Genetic Diversity |   |
| Sacramento River   | Extinct (original population existence uncertain) | G3                   | C                      | C2                | Snyder (1908a), Scofield (1916), Hallock and Fry (1967), Nehlsen et al. (1991), Moyle et al. (1995) |
| <b>H. Willamette River Valley and Lower Columbia River</b> |   |                      |                        |                   |   |
| Scappoose Creek fall run                                   | Extinct   | H3                   | A2                     | A6                | Myers et al. (2006)   |
| Cowlitz River fall-run                                     | Extant  | H2                   | A2                     | A6                | Myers et al. (2006)   |
| Cowlitz River summer run                                   | Extant  | H2                   | A4                     | A10               | Myers et al. (2006)   |
| Kalama River fall run                                      | Extinct   | H2                   | A2                     | A6                | Myers et al. (2006)   |
| Lewis River fall run                                       | Extinct   | H2                   | A2                     | A6                | Myers et al. (2006)   |
| Salmon Creek fall run                                      | Extinct   | H2                   | A2                     | A6                | Myers et al. (2006)   |
| Clackamas River fall run                                   | Extinct   | H2                   | A2                     | A6                | Myers et al. (2006)   |
| Washougal River fall run                                   | Extinct   | H2                   | A2                     | A6                | Myers et al. (2006)   |
| Sandy River fall run                                       | Extinct   | H2                   | A2                     | A6                | Myers et al. (2006)   |
| Lower Columbia River Gorge Tributaries fall run            | Extant  | H3                   | A2                     | A6                | Myers et al. (2006)   |
| Upper Columbia River Gorge Tributaries fall run            | Extinct   | H3                   | A2                     | A6                | Myers et al. (2006)   |
| <b>I. Mid-Columbia River</b>                               |   |                      |                        |                   |   |
| Upstream of Celilo Falls (Umatilla/Walla Walla rivers)     | Extinct (original population existence uncertain) | I1b                  | B                      | A9                | Cramer (1990), Nehlsen et al. (1991)  |

Appendix Table 6. Proposed historic demographically independent pink salmon populations sorted by major (level-I) ecological region. Each population is characterized according to its perceived current population status and historic biodiversity. Ecological, life history and genetic diversity are characterized using the hierarchical diversity matrix (see Appendix S1).

| Pink salmon population   | Population status | Diversity category   |                        |                   | Reference  |
|--|-------------------|----------------------|------------------------|-------------------|--|
|  |                   | Ecological diversity | Life history diversity | Genetic Diversity |  |
| <b>A. Georgia Basin</b>  |                   |                      |                        |                   |  |
| STRAIT OF GEORGIA (Mainland)   |                   |                      |                        |                   |  |
| Burrard Inlet (Indian/Seymour/ Capilano rivers) (False/Jericho/ Spanish Banks creeks extinct) (odd year) | Extant            | A2b                  | A2                     | B1                | Harris (1978), Hancock and Marshall (1986), DFO (1999) |
| Squamish River, Ashlu Creek (odd year)   | Extant            | A2b                  | A2a                    | B1                | Hancock and Marshall (1986)                            |
| Mamquam/Cheakamus rivers (odd year)  | Extant            | A2b                  | A2                     | B1                | Hancock and Marshall (1986)                            |
| Brem/Tahumming/Kilte rivers (odd year)   | Extant            | A2b                  | A2                     | B1                | Hancock and Marshall (1985c)                           |
| Toba/Little Toba rivers  | Extant            | A2b                  | A2                     | B1                | Hancock and Marshall (1985c)                           |
| Theodosia River, Forbes Creek  | Extant            | A1                   | A2                     | B1                | Hancock and Marshall (1985c)                           |
| Upper Jervis Inlet (Vancouver/ Deserted/Brittain/Skwawka rivers) (odd year)                              | Extant            | A2                   | A2                     | B1                | Marshall et al. (1976a)                                |
| Sechelt Inlet, Tzoonie River (odd year)  | Extant            | A2                   | A2                     | B1                | Marshall et al. (1976a)                                |
| STRAIT OF GEORGIA (East coast Vancouver Island)  |                   |                      |                        |                   |  |
| Oyster River (odd year)  | Extinct           | A2                   | A2b                    | B1                | Brown et al. (1977)                                    |
| Oyster River (even year)   | Extinct           | A2                   | A1b                    | A2                | Brown et al. (1977)                                    |
| Puntledge River (odd year)   | Extant            | A2                   | A2b                    | B1                | Brown et al. (1977)                                    |
| Puntledge River (even year)  | Extant            | A2                   | A1b                    | A2                | Brown et al. (1977)                                    |
| Tsable River (odd year)  | Extant            | A1                   | A2b                    | B1                | Brown et al. (1977)                                    |
| Tsable River (even year)   | Extant            | A1                   | A1b                    | A2                | Brown et al. (1977)                                    |
| Tsolum River (odd year)  | Extant            | A1                   | A2b                    | B1                | Brown et al. (1977)                                    |
| Tsolum River (even year)   | Extant            | A1                   | A1b                    | A2                | Brown et al. (1977)                                    |
| Campbell River (odd year)  | Extant            | A1                   | A2b                    | B1                | Marshall et al. (1977a)                                |
| Campbell River (even year)   | Extant            | A1                   | A1b                    | A2                | Marshall et al. (1977a)                                |

| Pink salmon population   | Population status | Diversity category   |                        |                   | Reference  |
|--|-------------------|----------------------|------------------------|-------------------|--|
|  |                   | Ecological diversity | Life history diversity | Genetic Diversity |  |
| Quinsam River (odd year)   | Extant            | A1                   | A2b                    | B1                | Marshall et al. (1977a)                            |
| Quinsam River (even year)  | Extant            | A1                   | A1b                    | A2                | Marshall et al. (1977a)                            |
| Chemainus River (odd year)   | Extinct           | A1                   | A2                     | B1                | Marshall et al. (1976b)                            |
| Nanaimo River (even year)  | Extinct           | A2b                  | A1                     | A                 | Marshall et al. (1976b)                            |
| Nanaimo River (odd year)   | Extinct           | A2b                  | A2                     | B                 | Marshall et al. (1976b)                            |
| <b>LOWER FRASER RIVER</b>  |                   |                      |                        |                   |  |
| Sumas/Chilliwack-Vedder rivers (odd year)  | Extant            | A2                   | A2b                    | B1                | Marshall et al. (1980b), DFO (1999)                |
| Small north shore Fraser River tributaries below Fraser River Canyon (Kanaka/Whonnock/ Morris/Mahood /Ruby/ Silverdale creeks, Maria Slough) (Brunette River, Musqueem Creek extinct) (odd year) | Extant            | A1                   | A2b                    | B1                | Harris (1978), Marshall et al. (1980b), DFO (1999) |
| Small south shore Fraser River tributaries below Fraser River Canyon (Coquihalla River, Kawkawa/Silverhope creeks) (Wahleach Creek extinct) (odd year)   | Extant            | A1                   | A2b                    | B1                | Marshall et al. (1980b), DFO (1999)                |
| Harrison/Chehalis rivers, Weaver Creek (odd year)  | Extant            | A2a                  | A2b                    | B1                | Hancock and Marshall (1985b), DFO (1999)           |
| Pitt River and tributaries, Coquitlam River (Alouette/ North Alouette rivers) (Coquitlam River extinct) (odd year)   | Extant            | A2a                  | A2b                    | B2                | Hancock and Marshall (1985b), DFO (1999)           |
| Stave River (odd year)   | Extant            | A2a                  | A2b                    | B1                | Hancock and Marshall (1985b), DFO (1999)           |
| <b>PUGET SOUND</b>   |                   |                      |                        |                   |  |
| North Fork/Middle Fork Nooksack River (odd year)   | Extant            | A2a                  | A2b                    | B2                | WDF et al. (1993), Hard et al. (1996)              |
| South Fork Nooksack River (odd year)   | Extant            | A2a                  | A2b                    | B2                | WDF et al. (1993), Hard et al. (1996)              |
| Skagit River (odd year)  | Extant            | A2a                  | A2b                    | B2                | WDF et al. (1993), Hard et al. (1996)              |
| North Fork Stillaguamish River (odd year)  | Extant            | A2a                  | A2b                    | B2                | WDF et al. (1993), Hard et al. (1996)              |
| South Fork Stillaguamish River (odd year)  | Extant            | A2a                  | A2b                    | B2                | WDF et al. (1993), Hard et al. (1996)              |
| Snohomish River (odd year)   | Extant            | A2a                  | A2b                    | B2                | WDF et al. (1993), Hard et al. (1996)              |
| Snohomish River (even year)  | Extant            | A2a                  | A1                     | A3                | WDF et al. (1993), Hard et al. (1996)              |
| Puyallup River (odd year)  | Extant            | A2a                  | A2b                    | B2                | WDF et al. (1993), Hard et al. (1996)              |

| Pink salmon population   | Population status | Diversity category   |                        |                   | Reference  |
|--|-------------------|----------------------|------------------------|-------------------|--|
|  |                   | Ecological diversity | Life history diversity | Genetic Diversity |  |
| Nisqually River (odd year)   | Extant            | A2a                  | A2b                    | B2                | WDF et al. (1993), Hard et al. (1996)                      |
| <b>HOOD CANAL</b>  |                   |                      |                        |                   |  |
| Hamma Hamma/Duckabush/ Dosewallips rivers (odd year)   | Extant            | A2b                  | A2b                    | B3b               | WDF et al. (1993), Hard et al. (1996)                      |
| <b>STRAIT OF JUAN DE FUCA</b>  |                   |                      |                        |                   |  |
| Upper Dungeness River (odd year) (summer)  | Extant            | A2a                  | A2a                    | B3a               | WDF et al. (1993), Hard et al. (1996)                      |
| Lower Dungeness River (odd year) (fall)  | Extant            | A2a                  | A2b                    | B3b               | WDF et al. (1993), Hard et al. (1996)                      |
| Elwha River (odd year)   | Extinct           | A2b                  | A2b                    | B3                | WDF et al. (1993), Hard et al. (1996)                      |
| <b>B. Coastal Rainforest</b>   |                   |                      |                        |                   |  |
| <b>WEST COAST VANCOUVER ISLAND</b>   |                   |                      |                        |                   |  |
| Sooke Harbour to Estevan Point (Barkley Sound, Clayuquot Sound, Gordon/San Juan/ Effingham/Franklin/Nahmint/ Sarita/Somass/Atleo/Bedwell/ Cypre/Megin/Moyeha/Sydney rivers) (Jordan River extinct) (even year) | Extant            | B1                   | A1                     | A2                | Marshall et al. (1977b), Brown et al. (1979b)              |
| Estevan Point to Tatchu Point (Nootka Sound and Esperanza Inlet, Burman/Conuma/Gold/ Muchalat/Leiner/Mooyah/ Sucwoa/Tahsis/Thupana/ Tsowwin/ Zeballos rivers) (even year)                                      | Extant            | B1                   | A1                     | A2                | Brown et al. (1979c)                                       |
| Tatchu Point to Cape Cook (Kyuquot Sound and Checleset Bay, Artlish/Battle/Kaouk/ Kashutl/Malksope/Nasparti/ Ououkinsh/Power/Tahsish/ Tatchu rivers) (even year)   | Extant            | B1                   | A1                     | A2                | Marshall et al. (1980a)                                    |
| Cape Cook to Cape Scott (Koprino River, Kwatleo Creek, etc.) (even year)   | Extant            | B1                   | A1                     | A2                | Brown et al. (1979d)                                       |
| Sooke Harbour to Cape Cook (Gordon/Effingham/Nahmint/ Somass/Moyeha/Artlish/Power rivers) (odd year)   | Extant            | B1                   | A2                     | B1                | Marshall et al. (1977b, 1980a), Brown et al. (1979b, c, e) |



| Pink salmon population  | Population status                                 | Diversity category   |                        |                   | Reference   |
|---|---|----------------------|------------------------|-------------------|---|
|   |   | Ecological diversity | Life history diversity | Genetic Diversity |   |
| Cape Cook to Cape Scott (Koprino River, Kwatleo Creek, etc.) (odd year)     | Extant  | B1                   | A2                     | B1                | Brown et al. (1979d)  |
| <b>D. Klamath Mountains Province</b>  |   |                      |                        |                   |   |
| Klamath River   | Extinct (original population existence uncertain) | D2                   | A2                     | C1                | Nehlsen et al. (1991)   |
| <b>E. Northern California (South of Klamath River to San Lorenzo River)</b> |   |                      |                        |                   |   |
| Russian River   | Extinct (original population existence uncertain) | E2                   | A2                     | C1                | Nehlsen et al. (1991), SEC (1996)   |
| <b>G. California Central Valley</b>   |   |                      |                        |                   |   |
| Sacramento River  | Extinct (original population existence uncertain) | G3                   | A2                     | C2                | Jordan and Gilbert (1882), Jordan and Evermann (1896), Hallock and Fry (1967), Nehlsen et al. (1991), Moyle et al. (1995) |

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