

| #  | Application                         | Location       | Model Used | Temperature | Water Quality | Macrophytes | Periphyton | Zooplankton | Fish | Re, Ri, E | Year Project Started |
|----|-------------------------------------|----------------|------------|-------------|---------------|-------------|------------|-------------|------|-----------|----------------------|
| 1  | Center Hill Lake                    | Tennessee      | CE-QUAL-W2 | X           | X             |             |            |             |      | RE        | 1979                 |
| 2  | Laurel Lake Reservoir               | Kentucky       | CE-QUAL-W2 | X           | X             |             |            |             |      | RE        | 1979                 |
| 3  | Tualatin River                      | Oregon         | CE-QUAL-W2 | X           | X             |             |            |             |      | RI        | 1991                 |
| 4  | Hagg Lake                           | Oregon         | CE-QUAL-W2 | X           | X             |             |            | X           |      | RE        | 1991                 |
| 5  | Lower Columbia Slough Estuary       | Oregon         | CE-QUAL-W2 | X           | X             | X           |            |             |      | E         | 1990, 2005           |
| 6  | Upper Columbia Slough               | Oregon         | CE-QUAL-W2 | X           | X             | X           |            |             |      | E         | 1991, 2005           |
| 7  | Smith and Bybee Lakes               | Oregon         | CE-QUAL-W2 | X           | X             |             |            |             |      | E         | 1992                 |
| 8  | Klamath River - Lake Ewauna Link    | Oregon         | CE-QUAL-W2 | X           | X             |             |            |             |      | RE        | 1994                 |
| 9  | Bull Run Reservoir 1                | Oregon         | CE-QUAL-W2 | X           |               |             |            |             |      | RE        | 1999                 |
| 10 | Bull Run Reservoir 2                | Oregon         | CE-QUAL-W2 | X           |               |             |            |             |      | RE        | 1999                 |
| 11 | Upper Bull Run River                | Oregon         | CE-QUAL-W2 | X           |               |             |            |             |      | RI        | 1999                 |
| 12 | Lower Bull Run River                | Oregon         | CE-QUAL-W2 | X           |               |             |            |             |      | RI        | 1999                 |
| 13 | South Slough Estuary                | Oregon         | CE-QUAL-W2 | X           | X             |             |            |             |      | E         | 1988                 |
| 14 | Lower Willamette River              | Oregon         | CE-QUAL-W2 | X           | X             |             |            |             |      | RI        | 2000                 |
| 15 | Lower Columbia River Estuary        | Oregon         | CE-QUAL-W2 | X           | X             |             |            |             |      | E         | 2000                 |
| 16 | Cooper Creek Reservoir              | Oregon         | CE-QUAL-W2 | X           | X             |             |            |             |      | RE        | 1999                 |
| 17 | Schooner Creek                      | Oregon         | CE-QUAL-W2 | X           | X             |             |            |             |      | RI        | 2001                 |
| 18 | Siletz Bay                          | Oregon         | CE-QUAL-W2 | X           | X             |             |            |             |      | E         | 2001                 |
| 19 | Mainstem Willamette River           | Oregon         | CE-QUAL-W2 | X           | X             |             |            |             |      | RI        | 2002                 |
| 20 | Mainstem Willamette River           | Oregon         | CE-QUAL-W2 | X           |               |             |            |             |      | RI        | 2002                 |
| 21 | Lower Snake River                   | Oregon/Idaho   | CE-QUAL-W2 | X           | X             |             |            |             |      | RI        | 1997                 |
| 22 | Brownlee Reservoir                  | Idaho/Oregon   | CE-QUAL-W2 | X           | X             |             |            |             | X    | RE        | 1998                 |
| 23 | Oxbow Reservoir                     | Idaho/Oregon   | CE-QUAL-W2 | X           | X             |             |            |             |      | RE        | 1999                 |
| 24 | Hells Canyon Reservoir              | Idaho/Oregon   | CE-QUAL-W2 | X           | X             |             |            |             |      | RE        | 1999                 |
| 25 | C.J. Strike Reservoir               | Idaho          | CE-QUAL-W2 | X           | X             |             |            |             |      | RE        | 2000                 |
| 26 | White and Puyallup Rivers           | Washington     | CE-QUAL-W2 | X           | X             |             |            |             |      | RI        | 2001                 |
| 27 | Wahiawa Reservoir                   | Hawaii         | CE-QUAL-W2 | X           | X             |             |            |             |      | RE        | 1998                 |
| 28 | Jordan River                        | Israel         | CE-QUAL-W2 | X           | X             |             |            |             |      | RI        | 2001                 |
| 29 | Tampa Bay Reservoir                 | Florida        | CE-QUAL-W2 | X           | X             |             |            |             |      | RE        | 2000                 |
| 30 | Spokane River                       | Washington     | CE-QUAL-W2 | X           | X             |             | X          |             |      | RI        | 2001                 |
| 31 | Long Lake                           | Washington     | CE-QUAL-W2 | X           | X             |             | X          |             |      | RE        | 2001                 |
| 32 | Clackamas River                     | Oregon         | CE-QUAL-W2 | X           | X             |             | X          |             |      | RI        | 2002                 |
| 33 | Timothy Lake                        | Oregon         | CE-QUAL-W2 | X           | X             |             | X          |             |      | RE        | 2002                 |
| 34 | Lake Harriet                        | Oregon         | CE-QUAL-W2 | X           | X             |             | X          |             |      | RE        | 2002                 |
| 35 | Frog Lake                           | Oregon         | CE-QUAL-W2 | X           | X             |             | X          |             |      | RE        | 2002                 |
| 36 | North Fork Reservoir                | Oregon         | CE-QUAL-W2 | X           | X             |             | X          |             |      | RE        | 2002                 |
| 37 | Faraday Lake                        | Oregon         | CE-QUAL-W2 | X           | X             |             | X          |             |      | RE        | 2002                 |
| 38 | Estacada Lake                       | Oregon         | CE-QUAL-W2 | X           | X             |             | X          |             |      | RE        | 2002                 |
| 39 | Kiev Sea off Basin                  | Ukraine        | CE-QUAL-W2 | X           | X             |             |            |             |      | RE        | 1993                 |
| 40 | Dead Sea                            | Israel         | CE-QUAL-W2 | X           |               |             |            |             |      | RE        | 2003                 |
| 41 | Laurance Lake                       | Oregon         | CE-QUAL-W2 | X           |               |             |            |             |      | RE        | 2003                 |
| 42 | Spokane River                       | Idaho          | CE-QUAL-W2 | X           | X             |             | X          |             |      | RI        | 2002, 2005           |
| 43 | Keowee Reservoir                    | North Carolina | CE-QUAL-W2 | X           |               |             |            |             |      | RE        | 2002                 |
| 44 | Long Tom River                      | Oregon         | CE-QUAL-W2 | X           |               |             |            |             |      | RI        | 2001                 |
| 45 | McKenzie River                      | Oregon         | CE-QUAL-W2 | X           |               |             |            |             |      | RI        | 2001                 |
| 46 | Coast Fork Willamette River         | Oregon         | CE-QUAL-W2 | X           |               |             |            |             |      | RI        | 2001                 |
| 47 | Middle Fork Willamette River        | Oregon         | CE-QUAL-W2 | X           |               |             |            |             |      | RI        | 2001                 |
| 48 | Lake Roosevelt                      | Washington     | CE-QUAL-W2 | X           | X             | X           | X          | X           | X    | RE        | 2003                 |
| 49 | Lake Waldo                          | Oregon         | CE-QUAL-W2 | X           | X             |             |            | X           |      | RE        | 2003                 |
| 50 | Coeur d'Alene Lake                  | Idaho          | CE-QUAL-W2 | X           | X             |             |            |             |      | RE        | 2003                 |
| 51 | Green River                         | Washington     | CE-QUAL-W2 | X           | X             |             | X          |             |      | RI        | 2003                 |
| 52 | Klamath River - Iron Gate Reservoir | California     | CE-QUAL-W2 | X           | X             |             | X          |             |      | RE        | 2004                 |
| 53 | Pend Oreille River                  | Idaho          | CE-QUAL-W2 | X           | X             |             |            |             |      | RI        | 2005                 |
| 54 | Pend Oreille River                  | Washington     | CE-QUAL-W2 | X           |               |             |            |             |      | RI        | 2005                 |
| 55 | Lake Whatcom                        | Washington     | CE-QUAL-W2 | X           | X             |             |            |             |      | RE        | 2005                 |
| 56 | Columbia River - Rocky Reach        | Washington     | CE-QUAL-W2 | X           |               |             |            |             |      | RI        | 2005                 |
| 57 | Butte Creek, DeSabra Reservoir      | California     | CE-QUAL-W2 | X           |               |             |            |             |      | RE        | 2005                 |
| 58 | Yaquina River and Estuary           | Oregon         | CE-QUAL-W2 | X           |               |             |            |             |      | E         | 2005                 |
| 59 | Millerton Lake, San Joaquin River   | California     | CE-QUAL-W2 | X           |               |             |            |             |      | RE        | 2006                 |
| 60 | Boise River                         | Idaho          | CE-QUAL-W2 | X           | X             | X           | X          |             |      | RI        | 2006                 |
| 61 | Philbrook Reservoir                 | California     | CE-QUAL-W2 | X           |               |             |            |             |      | RE        | 2006                 |
| 62 | Temperance Flat Dam - Millerton     | California     | CE-QUAL-W2 | X           |               |             |            |             |      | RE        | 2006                 |
| 63 | Fine Gold Dam - Millerton           | California     | CE-QUAL-W2 | X           |               |             |            |             |      | RE        | 2006                 |
| 64 | Tolt Reservoir                      | Washington     | CE-QUAL-W2 | X           |               |             |            |             |      | RE        | 2006                 |
| 65 | Tenkiller Reservoir                 | Oklahoma       | CE-QUAL-W2 | X           | X             |             |            |             |      | RE        | 2007                 |
| 66 | Lake Travis                         | Texas          | CE-QUAL-W2 | X           | X             |             |            |             |      | RE        | 2007                 |
| 67 | Lake Chaplain                       | Washington     | CE-QUAL-W2 | X           | X             |             |            |             |      | RE        | 2007                 |
| 68 | Kinnickinnic River                  | Wisconsin      | CE-QUAL-W2 | X           |               |             |            |             |      | RI        | 2005                 |
| 69 | Lake Lavon, TX                      | TX             | CE-QUAL-W2 | X           | X             |             |            |             |      | RE        | 2009                 |
| 70 | Chester Morse Lake                  | Washington     | CE-QUAL-W2 | X           | X             |             |            |             | X    | RE        | 2009                 |
| 71 | Banks Lake                          | Washington     | CE-QUAL-W2 | X           | X             |             | X          | X           | X    | RE        | 2009                 |
| 72 | Cedar River                         | Washington     | CE-QUAL-W2 | X           | X             |             |            |             | X    | RI        | 2009                 |
| 73 | Fordyce Reservoir                   | California     | CE-QUAL-W2 | X           |               |             |            |             |      | RE        | 2009                 |

|                           |                                   |                |                                |   |   |   |   |   |  |  |                  |           |
|---------------------------|-----------------------------------|----------------|--------------------------------|---|---|---|---|---|--|--|------------------|-----------|
| 74                        | Rollins Reservoir                 | California     | CE-QUAL-W2                     | X |   |   |   |   |  |  | RE               | 2009      |
| 75                        | Jackson Meadows Reservoirs        | California     | CE-QUAL-W2                     | X |   |   |   |   |  |  | RE               | 2009      |
| 76                        | Lake Spaulding                    | California     | CE-QUAL-W2                     | X |   |   |   |   |  |  | RE               | 2009      |
| 77                        | Bowman Lake                       | California     | CE-QUAL-W2                     | X |   |   |   |   |  |  | RE               | 2009      |
| 78                        | Trinity River                     | Texas          | CE-QUAL-W2                     |   |   |   |   |   |  |  | RI               | 2009      |
| 79                        | Eucha Reservoir                   | Oklahoma       | CE-QUAL-W2                     | X | X | X | X |   |  |  | RE               | 2009      |
| 80                        | Spavinow Reservoir                | Oklahoma       | CE-QUAL-W2                     | X | X | X | X |   |  |  | RE               | 2009      |
| 81                        | Oroville Diversion canal          | California     | CE-QUAL-W2                     | X | X |   |   |   |  |  | RI               | 2009      |
| 82                        | Thermalito Forebay - Oroville     | California     | CE-QUAL-W2                     | X |   |   |   |   |  |  | RE               | 2011      |
| 83                        | Amaila Reservoir, Guyana          | South America  | CE-QUAL-W2                     | X | X |   |   |   |  |  | RE               | 2010      |
| 84                        | Chaglla Hydropower project, Peru  | South America  | CE-QUAL-W2                     | X | X |   |   |   |  |  | RE               | 2010      |
| 85                        | Drift Creek                       | Oregon         | CE-QUAL-W2                     | X | X |   |   |   |  |  | RE               | 2011      |
| 86                        | Lake Lagopede                     | Canada         | CE-QUAL-W2                     | X |   |   |   |   |  |  | RE               | 2011      |
| 87                        | Folsom Reservoir                  | California     | CE-QUAL-W2                     | X |   |   |   |   |  |  | RE               | 2012      |
| 88                        | Dead Sea Works evaporation pond   | Israel         | CE-QUAL-W2                     | X | X |   |   |   |  |  | RE               | 2012      |
| 89                        | Priest River, Idaho               | Idaho          | CE-QUAL-W2                     | X | X |   |   |   |  |  | RI               | 2013      |
| 90                        | Tabajara Reservoir                | Brazil         | CE-QUAL-W2                     | X | X |   |   |   |  |  | RE               | 2014      |
| 91                        | Generic Pit Lake                  | Canada         | CE-QUAL-W2                     | X | X |   |   |   |  |  | RE               | 2014      |
| 92                        | Lac des Manages                   | Canada         | CE-QUAL-W2                     | X | X |   |   |   |  |  | RE               | 2014      |
| 93                        | Honeoye Lake                      | New York       | CE-QUAL-W2                     | X | X | X |   |   |  |  | RE               | 2015-2016 |
| 94                        | Conesus Lake                      | New York       | CE-QUAL-W2                     | X | X | X |   |   |  |  | RE               | 2015-2016 |
| 95                        | Hemlock Lake                      | New York       | CE-QUAL-W2                     | X | X | X |   |   |  |  | RE               | 2015      |
| 96                        | Chahalis River                    | Washington     | CE-QUAL-W2                     |   |   |   |   |   |  |  | RI               | 2016      |
| 97                        | Chehalis River Reservoir          | Washington     | CE-QUAL-W2                     |   |   |   |   |   |  |  | RI               | 2016      |
| 98                        | Kachess Reservoir                 | Washington     | CE-QUAL-W2                     |   |   |   |   |   |  |  | RE               | 2016      |
| 99                        | Kechelus Reservoir                | Washington     | CE-QUAL-W2                     |   |   |   |   |   |  |  | RE               | 2016      |
| 100                       | Three Gorges Reservoir            | China          | CE-QUAL-W2                     | X | X | X |   |   |  |  | RE               | 2016-2018 |
| 101                       | Xiangxi River                     | China          | CE-QUAL-W2                     | X | X | X |   |   |  |  | RE               | 2016-2018 |
| 102                       | Prineville Reservoir              | Oregon         | CE-QUAL-W2                     | X |   |   |   |   |  |  | RE               | 2016-2017 |
| 103                       | Crooked River                     | Oregon         | CE-QUAL-W2                     | X |   |   |   |   |  |  | RI               | 2016-2017 |
| 104                       | Tigris River                      | Iraq           | CE-QUAL-W2                     | X | X |   |   |   |  |  | RI               | 2016-2017 |
| 105                       | Tharthar Lake                     | Iraq           | CE-QUAL-W2                     | X | X |   |   |   |  |  | RE               | 2016-2017 |
| 106                       | Dexter Reservoir                  | Oregon         | CE-QUAL-W2                     | X | X | X | X | X |  |  | RE               | 2018-2019 |
| 107                       | Feather River                     | California     | CE-QUAL-W2                     | X |   |   |   |   |  |  | RI               | 2018-2019 |
| 108                       | Thermalito Afterbay               | California     | CE-QUAL-W2                     | X |   |   |   |   |  |  | RE               | 2018-2019 |
| 109                       | Oroville Reservoir/Lake           | California     | CE-QUAL-W2                     | X |   |   |   |   |  |  | RE               | 2018-2019 |
| 110                       | Calero Lake                       | California     | CE-QUAL-W2                     | X | X | X | X | X |  |  | RE               | 2018-2019 |
|                           |                                   |                |                                |   |   |   |   |   |  |  |                  |           |
|                           |                                   |                |                                |   |   |   |   |   |  |  |                  |           |
|                           |                                   |                |                                |   |   |   |   |   |  |  |                  |           |
|                           |                                   |                |                                |   |   |   |   |   |  |  |                  |           |
|                           |                                   |                |                                |   |   |   |   |   |  |  | w2 APPLICATIONS: |           |
|                           |                                   |                |                                |   |   |   |   |   |  |  | River reservoir  | 32        |
| Other Applications        |                                   |                |                                |   |   |   |   |   |  |  | Estuary          | 71        |
|                           |                                   |                |                                |   |   |   |   |   |  |  |                  | 7         |
| 1                         | Russel Creek                      | Oregon         | BOD-DO Model                   |   | X |   |   |   |  |  |                  | 1997      |
| 2                         | Johnson Creek                     | Oregon         | Water quality analysis         |   | X |   |   |   |  |  |                  | 1994      |
| 3                         | Kiev Sea- Dneiper River           | Ukraine        | QUAL2E                         | X | X |   |   |   |  |  |                  | 1993      |
| 4                         | Stone Creek below Timothy Lake    | Oregon         | DO-BOD Model                   |   | X |   |   |   |  |  |                  | 1992      |
| 5                         | Ashland Creek                     | Oregon         | DO-BOD Model                   |   | X |   |   |   |  |  |                  | 1996      |
| 6                         | Bear Creek                        | Oregon         | DO-BOD Model                   |   | X |   |   |   |  |  |                  | 1996      |
| 7                         | N. Anna Reservoir                 | Virginia       | MIT N. Anna Mod                | X |   |   |   |   |  |  |                  | 1982      |
| 8                         | Clear Lake                        | Washington     | CE-QUAL-R1                     | X | X |   |   |   |  |  |                  | 1993      |
| 9                         | Spirit Lake                       | Washington     | CE-QUAL-R1                     | X | X |   |   |   |  |  |                  | 1993      |
| 10                        | Clackamas River                   | Oregon         | 2D x-y hydrodynamics           |   |   |   |   |   |  |  |                  | 2011      |
| 11                        | Lake Chaplain                     | Washington     | W3                             |   |   |   |   |   |  |  |                  | 2017      |
| 12                        | Tenkiller Lake                    | Oklahoma       | W3                             |   |   |   |   |   |  |  |                  | 2017      |
| 13                        | Laurance Lake                     | Oregon         | W3                             |   |   |   |   |   |  |  |                  | 2017      |
| 14                        | Cooper Creek Reservoir            | Oregon         | W3                             |   |   |   |   |   |  |  |                  | 2018      |
|                           |                                   |                |                                |   |   |   |   |   |  |  |                  |           |
|                           |                                   |                |                                |   |   |   |   |   |  |  |                  |           |
|                           |                                   |                |                                |   |   |   |   |   |  |  |                  |           |
|                           |                                   |                |                                |   |   |   |   |   |  |  |                  |           |
| Provided Technical Review |                                   |                |                                |   |   |   |   |   |  |  |                  |           |
| 1                         | Snohomish River Estuary           | Washington     | WASP/DYNHYD                    | X | X |   |   |   |  |  |                  | 2001      |
| 2                         | Sea of Galilee/Lake Kineeret      | Israel         | CE-QUAL-W2                     | X | X |   |   |   |  |  |                  | 2001      |
| 3                         | Jordan River                      | Israel         | CE-QUAL-W2                     | X | X |   |   |   |  |  |                  | 2001      |
| 4                         | Lake Chelan, Chelan River         | Washington     | SNTEMP                         | X |   |   |   |   |  |  |                  | 2004      |
| 5                         | Coeur d'Alene Lake                | Idaho          | ELCOM                          | X | X |   |   |   |  |  |                  | 2005      |
| 6                         | Columbia River, Wanapum Dam       | Washington     | Water quality rev              |   |   |   |   |   |  |  |                  | 2005      |
| 7                         | Columbia River, Priest Rapids Dam | Washington     | MASS1/MASS2                    | X |   |   |   |   |  |  |                  | 2005      |
| 8                         | Sammamish River                   | Washington     | CE-QUAL-W2                     | X |   |   |   |   |  |  |                  | 2001      |
| 9                         | Mollala River                     | OR             | Heat Source                    | X |   |   |   |   |  |  |                  | 2007      |
| 10                        | Lost River, OR in Klamath Basin   | OR             | CE-QUAL-W2                     | X | X |   |   |   |  |  |                  | 2004      |
| 11                        | Lake Claire                       | MI             | RMA2                           | X |   |   |   |   |  |  |                  | 2006      |
| 12                        | Budd Inlet                        | Washington     | GEMMS                          | X | X |   |   |   |  |  |                  | 2009      |
| 13                        | Capitol Lake                      | Washington     | GEMMS                          | X | X |   |   |   |  |  |                  | 2009      |
| 14                        | Deschutes River                   | Washington     | QUAL2E                         | X | X |   |   |   |  |  |                  | 2009      |
| 15                        | Barney Reservoir, OR              | OR             | CE-QUAL-W2                     | X | X |   |   |   |  |  |                  | 2008      |
| 16                        | Thames River                      | UK             | Proprietary model              | X | X |   |   |   |  |  |                  | 2009      |
| 17                        | Bull Run watershed                | OR             | Cryptosiridium watershed model |   |   |   |   |   |  |  |                  | 2009      |
| 18                        | Pit Lakes Model, Canada           | Canada         | CE-QUAL-W2                     | X | X |   |   |   |  |  |                  | 2011      |
| 19                        | Hells Canyon Reservoir            | Idaho          | CE-QUAL-W2                     | X | X |   |   |   |  |  |                  | 2012      |
| 20                        | Three Gorges Reservoir            | China          | CE-QUAL-W2                     | X | X |   |   |   |  |  |                  | 2014      |
| 21                        | Cayuga Lake                       | New York       | CE-QUAL-W2                     | X | X | X |   |   |  |  |                  | 2014-2016 |
| 22                        | Cherry Creek Reservoir            | Colorado       | CE-QUAL-W2                     | X | X | X |   |   |  |  |                  | 2014-2015 |
| 23                        | High Rock Lake                    | North Carolina | EFDC/WASP                      | X | X | X |   |   |  |  |                  | 2015      |
| 24                        | Neuse Estuary                     | North Carolina | Water Quality Review           |   |   |   |   |   |  |  |                  | 2016      |
| 25                        | Tar-Palmico River estuary         | North Carolina | Water Quality Review           |   |   |   |   |   |  |  |                  | 2016      |
| 26                        | Lake Washington Ship Canal        | Washington     | CE-QUAL-W2                     | X | X |   |   |   |  |  |                  | 2016      |

|    |                      |          |            |   |   |   |   |   |  |      |
|----|----------------------|----------|------------|---|---|---|---|---|--|------|
| 27 | Grand Lake           | Colorado | CE-QUAL-W2 | X | X | X | X | X |  | 2018 |
| 28 | Shadow Mountain Lake | Colorado | CE-QUAL-W2 | X | X | X | X | X |  | 2018 |
| 29 | Granby Lake          | Colorado | CE-QUAL-W2 | X | X | X | X | X |  | 2018 |