

## Appendix B-2: Community Planning Areas

### Kittitas Valley Community Planning Area

#### Profile

| <b>Agricultural Landcover and Primary Crops/Products</b>   |                |                |
|--|----------------|----------------|
| <p>The Kittitas Valley Community Planning Area is located in central Kittitas County. The Yakima River flows through this Community Area with it and many of its tributaries providing irrigation water to agricultural lands within Kittitas Valley. The Columbia River flows on eastern boundary as well.</p>  |                |                |
| <b>Landcover</b>   | <b>Acres</b>   | <b>Percent</b> |
| <b>Total Community Area</b>  | <b>146,051</b> |                |
| <b>Agricultural Landcover</b>  | <b>103,345</b> | <b>70.8%</b>   |
| <i>Irrigated Cropland</i>  | 76,371         | 73.9%          |
| <i>Irrigated Pasture</i>   | 22,113         | 21.4%          |
| <i>Orchard/vineyard</i>  | 1,942          | 1.9%           |
| <i>Dryland</i>   | 104            | 0.1%           |
| <i>Rangeland – Shrub-Steppe</i>  | 1,924          | 1.9%           |
| <i>Rangeland – Forest</i>  | 891            | 0.9%           |
| <p>The main type of agricultural practice in this Community Area is irrigated agriculture. Hay is the most prominent crop in Kittitas Valley, specifically timothy hay. Kittitas Valley is known worldwide for producing high quality timothy hay, much of which is exported to the international market. Other crops produced in this area include small grains, seed crops, and vegetables. Orchards and vineyards are concentrated along the Columbia River to the east and southeastern area of the Valley. Additionally, irrigated pasture lands, primarily on the northern half of the Valley, are used for livestock production.</p>                                |                |                |
| <b>Water Resources, Soils, and Terrain</b>   |                |                |
| <p>Many irrigation canals and pipelines facilitate water movement in this area and are regulated by water rights. Water availability is a major concern in this Community Area because some years the demand for irrigation water exceeds the supply resulting in prorationing for proratable, or junior, water right holders. This means that the amount of water delivered to junior water right holders is equally reduced based on the total water available. This Community Area is relatively flat with mainly loamy soils which range from silty loam to gravelly loam.</p>   |                |                |
| <b>Critical Areas Presence</b>   |                |                |
| <p>There are many mapped wetlands in this area, many of which are associated with the Yakima River and its tributaries and to a lesser extent the Columbia River. Additionally, the Yakima River, Manastash Creek, Taneum Creek, and portions of other tributaries contain habitat for bull trout or summer steelhead. The Yakima River has a relatively wide floodplain through this Community Area especially south of the City of Ellensburg. Additionally, due to its proximity to Ellensburg, this Community Area has the largest overlap with wellhead protection areas. Geologic hazard areas are not prevalent in this area due to the flatness of the Valley.</p> |                |                |

### Objectives and Key Practices

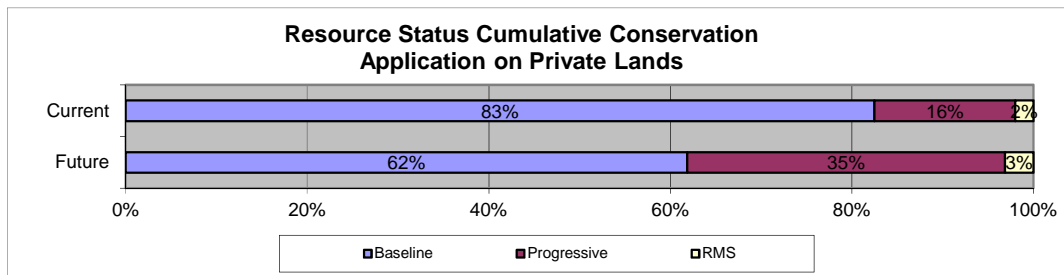
| Protection/Enhancement Objectives   | Key Stewardship Practices   |
|---|---|
| <ul style="list-style-type: none"> <li>• Manage irrigation water so it is delivered, scheduled, and/or applied efficiently</li> <li>• Maintain and improve fish habitat including riparian vegetation and fish passage</li> <li>• Protect soils from water and wind erosion</li> <li>• Manage nutrients and pesticides effectively and efficiently</li> </ul> | <ul style="list-style-type: none"> <li>• Fence</li> <li>• Sprinkler System</li> <li>• Irrigation Water Management</li> <li>• Nutrient Management</li> <li>• Tree/Shrub Establishment</li> <li>• Riparian Forest Buffer</li> <li>• Streambank Protection and Restoration</li> <li>• Stream Habitat Improvement</li> <li>• Structure for Water Control (fish screen)</li> <li>• Managed Grazing</li> <li>• Wetland Restoration and Enhancement</li> </ul> |

### Attachments

- Kittitas Valley Community Planning Area Rapid Watershed Assessment Tables
- Kittitas Valley Community Planning Area Baseline Summary Table

| WATERSHED NAME & CODE                                  |  | INTENSIVE CROPLAND - INTENSIVE CROPLAND |                          |                     | LANDUSE ACRES            | 103,345                           |   |   |   |
|--|--|---|--------------------------|---------------------|--------------------------|-----------------------------------|---|---|---|
| LANDUSE TYPE   |  | MIXED                                   |                          |                     | TYPICAL UNIT SIZE ACRES  | 40                                |   |   |   |
| ASSESSMENT INFORMATION                                 |  |   |                          |                     | CALCULATED PARTICIPATION | 21%                               |   |   |   |
|  |  | Benchmark Conditions                    | Future Conditions        |                     | RESOURCE CONCERNS        |                                   |   |   |   |
| Conservation Systems by Treatment Level                |  | Total Units                             | Existing Unchanged Units | New Treatment Units | Total Units              | Soil Erosion – Irrigation induced | Water Quality – Excessive Nutrients and Organics in Surface Water | Fish and Wildlife – T & E Fish/Wildlife Species: Listed or Proposed under ESA | Profitability - Change in Profitability |
| <b>Baseline</b>  |  | <b>System Rating -&gt;</b>              |                          |                     | <b>-1</b>                | <b>-1</b>                         | <b>0</b>  | <b>0</b>  |   |
| Irrigation System, Surface and Subsurface (ac.) 443    |  | 68,208                                  | 51,156                   | 0                   | 51,156                   | -2                                | -2  | 0   | -1                                      |
| <b>Total Acreage at Baseline</b>                       |  | <b>85,260</b>                           | <b>63,945</b>            | <b>0</b>            | <b>63,945</b>            |                                   |   |   |   |
| <b>Progressive</b>                                     |  | <b>System Rating -&gt;</b>              |                          |                     | <b>3</b>                 | <b>4</b>                          | <b>3</b>  | <b>1</b>  |   |
| Anionic Polyacrylamide (PAM) Erosion Control (ac.) 450 |  | 2,002                                   | 1,962                    | 2,558               | 4,520                    | 3                                 | 3   | 0   | 2                                       |
| Fence (ft.) 382  |  | 30,035                                  | 29,434                   | 38,367              | 67,801                   | 0                                 | 0   | 4   | 2                                       |
| Irrigation System, Sprinkler (ac.) 442                 |  | 8,009                                   | 7,849                    | 10,231              | 18,080                   | 3                                 | 3   | 0   | -1                                      |
| Irrigation Water Conveyance, Pipeline (ft.) 430        |  | 100,115                                 | 98,113                   | 127,889             | 226,003                  | 4                                 | 3   | 0   | -1                                      |
| Irrigation Water Management (ac.) 449                  |  | 3,204                                   | 3,140                    | 4,092               | 7,232                    | 0                                 | 3   | 2   | 2                                       |
| Nutrient Management (ac.) 590                          |  | 2,403                                   | 2,355                    | 3,069               | 5,424                    | 0                                 | 5   | 2   | 1                                       |
| Tree/Shrub Establishment (ac.) 612                     |  | 5                                       | 5                        | 6                   | 11                       | 0                                 | 0   | 1   | -1                                      |
| <b>Total Acreage at Progressive Level</b>              |  | <b>16,018</b>                           | <b>15,698</b>            | <b>20,462</b>       | <b>36,160</b>            |                                   |   |   |   |
| <b>RMS</b>   |  | <b>System Rating -&gt;</b>              |                          |                     | <b>4</b>                 | <b>4</b>                          | <b>5</b>  | <b>-1</b>   |   |
| Cover Crop (ac.) 340                                   |  | 6                                       | 6                        | 4                   | 10                       | 0                                 | 2   | 1   | -1                                      |
| Fish Passage (no.) 396                                 |  | 13                                      | 13                       | 7                   | 20                       | 0                                 | 1   | 5   | -1                                      |
| Heavy Use Area Protection (ac.) 561                    |  | 2                                       | 2                        | 1                   | 3                        | 5                                 | 4   | 0   | -2                                      |
| Irrigation System, Microirrigation (ac.) 441           |  | 362                                     | 362                      | 205                 | 567                      | 5                                 | 5   | 0   | -1                                      |
| Pest Management (ac.) 595                              |  | 248                                     | 248                      | 141                 | 389                      | 2                                 | 1   | 1   | 1                                       |
| Prescribed Grazing (ac.) 528                           |  | 103                                     | 103                      | 59                  | 162                      | 0                                 | 0   | 2   | 2                                       |
| Riparian Forest Buffer (ac.) 391                       |  | 3                                       | 3                        | 2                   | 5                        | 0                                 | 0   | 5   | -2                                      |
| Stream Habitat Improvement and Management (ac.) 395    |  | 21                                      | 21                       | 12                  | 32                       | 0                                 | 0   | 5   | -1                                      |
| Streambank & Shoreline Protection (ft.) 580            |  | 1,033                                   | 1,033                    | 586                 | 1,620                    | 0                                 | 1   | 3   | -3                                      |
| Structure for Water Control (no.) 587                  |  | 23                                      | 23                       | 13                  | 36                       | 1                                 | 1   | 5   | 1                                       |
| Trust Water Rights Program (ac/ft) 999                 |  | 1,033                                   | 1,033                    | 586                 | 1,620                    | 0                                 | 0   | 3   | 2                                       |
| Water Well (no.) 642                                   |  | 3                                       | 3                        | 1                   | 4                        | 0                                 | 0   | 0   | -1                                      |
| Wetland Enhancement (ac.) 659                          |  | 2                                       | 2                        | 1                   | 3                        | 0                                 | 1   | 1   | -1                                      |
| Wetland Restoration (ac.) 657                          |  | 2                                       | 2                        | 1                   | 3                        | 0                                 | 1   | 1   | -1                                      |
| <b>Total Acreage at RMS Level</b>                      |  | <b>2,067</b>                            | <b>2,067</b>             | <b>1,173</b>        | <b>3,240</b>             |                                   |   |   |   |

| WATERSHED NAME & CODE                                  |  | INTENSIVE CROPLAND - INTENSIVE CROPLAND |                          |                                 |                             | LANDUSE ACRES            |                          | 103,345                          |                          |
|--|--|---|--------------------------|---------------------------------|-----------------------------|--------------------------|--------------------------|----------------------------------|--------------------------|
| LANDUSE TYPE   |  | MIXED                                   |                          |                                 |                             | TYPICAL UNIT SIZE ACRES  |                          | 40                               |                          |
| CONSERVATION COST TABLE                                |  |   |                          |                                 |                             | CALCULATED PARTICIPATION |                          | 21%                              |                          |
| Conservation Systems by Treatment Level                |  | FUTURE                                  | FEDERAL                  |                                 |                             | PRIVATE                  |                          |                                  |                          |
|  |  | New Treatment Units                     | Installation Cost<br>75% | Management Cost - 3 yrs<br>100% | Technical Assistance<br>30% | Total Present Value Cost | Installation Cost<br>25% | Annual O & M + Mgt Costs<br>100% | Total Present Value Cost |
| <b>Progressive</b>                                     |  |   |                          |                                 |                             |                          |                          |                                  |                          |
| Anionic Polyacrylamide (PAM) Erosion Control (ac.) 450 |  | 2,558                                   | \$0                      | \$268,568                       | \$80,570                    | \$329,004                | \$0                      | \$89,523                         | \$150,105                |
| Fence (ft.) 382  |  | 38,367                                  | \$71,938                 | \$0                             | \$21,581                    | \$93,519                 | \$23,979                 | \$1,918                          | \$32,519                 |
| Irrigation System, Sprinkler (ac.) 442                 |  | 10,231                                  | \$11,510,049             | \$0                             | \$3,453,015                 | \$14,963,064             | \$3,836,683              | \$306,935                        | \$5,203,102              |
| Irrigation Water Conveyance, Pipeline (ft.) 430        |  | 127,889                                 | \$383,668                | \$0                             | \$115,100                   | \$498,769                | \$127,889                | \$10,231                         | \$173,437                |
| Irrigation Water Management (ac.) 449                  |  | 4,092                                   | \$0                      | \$429,709                       | \$128,913                   | \$526,406                | \$0                      | \$143,236                        | \$240,169                |
| Nutrient Management (ac.) 590                          |  | 3,069                                   | \$0                      | \$138,121                       | \$41,436                    | \$169,202                | \$0                      | \$46,040                         | \$77,197                 |
| Tree/Shrub Establishment (ac.) 612                     |  | 6                                       | \$3,108                  | \$0                             | \$4,040                     | \$4,040                  | \$1,036                  | \$41                             | \$1,220                  |
| <b>Subtotal</b>  |  | <b>20,462</b>                           | <b>\$11,968,763</b>      | <b>\$836,397</b>                | <b>\$3,841,548</b>          | <b>\$16,584,004</b>      | <b>\$3,989,588</b>       | <b>\$597,925</b>                 | <b>\$5,877,749</b>       |
| <b>RMS</b>   |  |   |                          |                                 |                             |                          |                          |                                  |                          |
| Cover Crop (ac.) 340                                   |  | 4                                       | \$0                      | \$792                           | \$238                       | \$970                    | \$0                      | \$264                            | \$443                    |
| Fish Passage (no.) 396                                 |  | 7                                       | \$15,945                 | \$0                             | \$4,784                     | \$20,729                 | \$5,315                  | \$425                            | \$7,208                  |
| Heavy Use Area Protection (ac.) 561                    |  | 1                                       | \$180                    | \$0                             | \$54                        | \$234                    | \$60                     | \$12                             | \$114                    |
| Irrigation System, Microirrigation (ac.) 441           |  | 205                                     | \$230,928                | \$0                             | \$69,278                    | \$300,206                | \$76,976                 | \$15,395                         | \$145,512                |
| Pest Management (ac.) 595                              |  | 141                                     | \$0                      | \$8,445                         | \$2,534                     | \$10,346                 | \$0                      | \$2,815                          | \$4,720                  |
| Prescribed Grazing (ac.) 528                           |  | 59                                      | \$308                    | \$0                             | \$92                        | \$400                    | \$103                    | \$0                              | \$103                    |
| Riparian Forest Buffer (ac.) 391                       |  | 2                                       | \$1,663                  | \$0                             | \$499                       | \$2,161                  | \$554                    | \$67                             | \$850                    |
| Stream Habitat Improvement and Management (ac.) 395    |  | 12                                      | \$44,866                 | \$0                             | \$13,460                    | \$58,326                 | \$14,955                 | \$1,196                          | \$20,282                 |
| Streambank & Shoreline Protection (ft.) 580            |  | 586                                     | \$39,588                 | \$0                             | \$11,876                    | \$51,464                 | \$13,196                 | \$1,056                          | \$17,896                 |
| Structure for Water Control (no.) 587                  |  | 13                                      | \$39,588                 | \$0                             | \$11,876                    | \$51,464                 | \$13,196                 | \$1,056                          | \$17,896                 |
| Trust Water Rights Program (ac/ft) 999                 |  | 586                                     | \$659,793                | \$0                             | \$857,731                   | \$219,931                | \$219,931                | \$0                              | \$219,931                |
| Water Well (no.) 642                                   |  | 1                                       | \$11,151                 | \$0                             | \$14,496                    | \$14,496                 | \$3,717                  | \$149                            | \$4,379                  |
| Wetland Enhancement (ac.) 659                          |  | 1                                       | \$264                    | \$0                             | \$343                       | \$343                    | \$88                     | \$4                              | \$104                    |
| Wetland Restoration (ac.) 657                          |  | 1                                       | \$264                    | \$0                             | \$343                       | \$343                    | \$88                     | \$4                              | \$104                    |
| <b>Subtotal</b>  |  | <b>1,173</b>                            | <b>\$1,044,536</b>       | <b>\$9,237</b>                  | <b>\$316,132</b>            | <b>\$1,369,213</b>       | <b>\$348,179</b>         | <b>\$22,441</b>                  | <b>\$439,539</b>         |
| <b>Grand Total</b>                                     |  | <b>21,635</b>                           | <b>\$13,013,299</b>      | <b>\$845,634</b>                | <b>\$4,157,680</b>          | <b>\$17,953,217</b>      | <b>\$4,337,766</b>       | <b>\$620,366</b>                 | <b>\$6,317,288</b>       |



| Chart Refers To               |       |
|-------------------------------|-------|
| Landuse Type                  | MIXED |
| Calculated Participation Rate | 21%   |

| Average PV Costs per Ac |            |          |
|-------------------------|------------|----------|
| System                  | Federal    | Private  |
| Prog                    | \$810.47   | \$287.25 |
| RMS                     | \$1,167.31 | \$374.72 |

## Kittitas County VSP Work Plan - Kittitas Valley Community Data Summary

| Landcover                       | Acres          |
|---------------------------------|----------------|
| <b>Total Area</b>               | <b>146,051</b> |
| <b>Agricultural Landcover</b>   | <b>103,345</b> |
| <i>Irrigated Cropland</i>       | 76,371         |
| <i>Irrigated Pasture</i>        | 22,113         |
| <i>Orchard/vineyard</i>         | 1,942          |
| <i>Dryland</i>                  | 104            |
| <i>Rangeland - Shrub Steppe</i> | 1,924          |
| <i>Rangeland-Forest</i>         | 891            |
| <b>Total Streams (miles)</b>    | <b>690</b>     |

| Critical Areas                                   | Areas within Agricultural Lands |              |                        |                  |              |
|--|---------------------------------|--------------|------------------------|------------------|--------------|
|  | Irrigated                       | Dryland      | Rangeland-Shrub Steppe | Rangeland-Forest | Total        |
|  | <i>Miles</i>                    | <i>Miles</i> | <i>Miles</i>           | <i>Miles</i>     | <i>Miles</i> |
| <b>Streams Total</b>                             | 671                             | 0            | 13                     | 6                | 690          |
| <i>Shorelines of the State</i>                   | 31                              | 0            | 1                      | 0                | 32           |
| <i>Fish Use or Potential Fish Use</i>            | 177                             | 0            | 3                      | 2                | 182          |
| <i>No Fish Use</i>                               | 68                              | 0            | 1                      | 1                | 70           |
| <i>Unknown (this includes irrigation canals)</i> | 395                             | 0            | 8                      | 4                | 406          |
| <b>Fish Habitat (PHS)</b>                        |                                 |              |                        |                  |              |
| <i>Summer Steelhead (ESA threatened)</i>         | 39                              | 0            | 1                      | 0                | 40           |
| <i>Bull Trout (ESA threatened)</i>               | 16                              | 0            | 0                      | 0                | 16           |
| <i>Upper Yakima River Spring Chinook</i>         | 42                              | 0            | 1                      | 0                | 43           |
| <i>Upper Yakima Coho</i>                         | 21                              | 0            | 0                      | 0                | 21           |
| <i>Rainbow Trout</i>                             | 102                             | 0            | 2                      | 1                | 105          |
| <i>Westslope Cutthroat Trout</i>                 | 24                              | 0            | 0                      | 0                | 24           |
| <i>Columbia River Fall Chum</i>                  | 4                               | 0            | 0                      | 0                | 4            |
| <i>Columbia River Kokanee</i>                    | 4                               | 0            | 0                      | 0                | 4            |
| <i>Columbia River Spring Chinook</i>             | 4                               | 0            | 0                      | 0                | 4            |
| <i>Columbia River Summer Chinook</i>             | 4                               | 0            | 0                      | 0                | 4            |
| <i>Columbia River Coho</i>                       | 4                               | 0            | 1                      | 0                | 5            |
| <i>Hanford Reach Fall Chinook</i>                | 4                               | 0            | 0                      | 0                | 4            |

| Critical Areas                           | Areas within Agricultural Lands |           |                            |                      |            |
|--|---------------------------------|-----------|----------------------------|----------------------|------------|
|  | Irrigated                       | Dryland   | Rangeland-<br>Shrub Steppe | Rangeland-<br>Forest | Total      |
|  | Acres                           | Acres     | Acres                      | Acres                | Acres      |
| <b>Wetlands (all types)</b>              | 1,878                           | 2         | 36                         | 17                   | 1,933      |
| <i>Freshwater Emergent Wetland</i>       | 1,525                           | 2         | 29                         | 14                   | 1,570      |
| <i>Freshwater Forested/Shrub Wetland</i> | 268                             | 0         | 5                          | 2                    | 276        |
| <i>Lake/Pond</i>                         | 55                              | 0         | 1                          | 0                    | 56         |
| <i>Riverine</i>                          | 30                              | 0         | 1                          | 0                    | 31         |
| <i>Other</i>                             | 0                               | 0         | 0                          | 0                    | 0          |
| <b>Frequently Flooded Areas</b>          | 7,304                           | 8         | 140                        | 65                   | 7,517      |
| <b>Wellhead Protection Areas</b>         | 6                               | 0         | 0                          | 1                    | 7          |
| <b>Hazard Slopes</b>                     | 0                               | 0         | 938                        | 435                  | 1,373      |
| 25% to 50%                               | 0                               | 0         | 899                        | 416                  | 1,315      |
| Over 50%                                 | 0                               | 0         | 40                         | 18                   | 58         |
| <b>Priority Habitats and Species</b>     |                                 |           |                            |                      |            |
| <b>Birds</b>                             |                                 |           |                            |                      |            |
| <i>Spotted Owl</i>                       | 936                             | 52        | 0                          | 194                  | 1,182      |
| <i>Black-backed woodpecker</i>           | 0                               | 1         | 0                          | 0                    | 1          |
| <i>Great Blue Heron</i>                  | 11                              | 0         | 0                          | 0                    | 11         |
| <b>Mammals</b>                           |                                 |           |                            |                      |            |
| <i>Mule Deer</i>                         | 1,954                           | 104       | 3,691                      | 49                   | 5,799      |
| <i>Elk</i>                               | 1,231                           | 82        | 1,395                      | 575                  | 3,283      |
| <i>Bighorn Sheep</i>                     | 49                              | 0         | 26                         | 0                    | 75         |
| <i>Townsend's Ground Squirrel</i>        | 0.3                             | 0         | 0                          | 0                    | 0          |
| <b>Reptiles</b>                          |                                 |           |                            |                      |            |
| <i>Sharp-Tail Snake</i>                  | 0                               | 0         | 0                          | 14                   | 14         |
| <b>Oak Woodland</b>                      | <b>0</b>                        | <b>0</b>  | <b>91</b>                  | <b>0</b>             | <b>91</b>  |
| <b>Shrub Steppe</b>                      | <b>37</b>                       | <b>18</b> | <b>677</b>                 | <b>0</b>             | <b>732</b> |
| <b>Biodiversity Areas and Corridor</b>   | <b>19</b>                       | <b>0</b>  | <b>129</b>                 | <b>0</b>             | <b>148</b> |
| <b>Big Game Area (Watson Rd Cutoff)</b>  | <b>206</b>                      | <b>0</b>  | <b>0</b>                   | <b>40</b>            | <b>246</b> |
| <b>Waterfowl Concentration</b>           | <b>8</b>                        | <b>0</b>  | <b>0</b>                   | <b>0</b>             | <b>8</b>   |

## Forested Upland Community Planning Area

### Profile

| <b>Agricultural Landcover and Primary Crops/Products</b>  |               |                |
|---|---------------|----------------|
| <p>The Forested Upland Community Area includes the mainly forested areas northwest of the Kittitas Valley.</p>  |               |                |
| <b>Landcover</b>  | <b>Acres</b>  | <b>Percent</b> |
| <b>Total Community Area</b>   | <b>90,800</b> |                |
| <b>Agricultural Landcover</b>   | <b>34,763</b> | <b>38%</b>     |
| <i>Irrigated</i>  | 82            | 0.2%           |
| <i>Irrigated Pasture</i>  | 19            | 0.1%           |
| <i>Orchard/vineyard</i>   | 0             | 0.0%           |
| <i>Dryland</i>  | 1,420         | 4.1%           |
| <i>Rangeland – Shrub-Steppe</i>   | 0             | 0.0%           |
| <i>Rangeland – Forest</i>   | 33,242        | 95.6%          |
| <p>This Community Area includes agricultural practices for dryland farming and forest rangeland. The dryland areas mainly produce wheat or are enrolled in the Conservation Reserve Program. Forested rangeland occurs mostly in the foothills of the Cascade Mountains and is characterized by livestock that graze on vegetation underneath the forest canopy. Grazing in these areas often has the additional benefit of reducing fuel for forest fires.</p>   |               |                |
| <b>Water Resources, Soils, and Terrain</b>  |               |                |
| <p>Both the Yakima and Teanaway rivers flow through the Forested Upland Community Area. The terrain in this Community Area ranges from flat in the river valleys to hilly and mountainous in the upland areas. Forests cover a majority of the area and are mainly characterized as open forests with ponderosa pine. Soils are mainly characterized as loam.</p>   |               |                |
| <b>Critical Areas Presence</b>  |               |                |
| <p>The Yakima, Teanaway, and Cle Elum rivers provide habitat for fish and wildlife including bull trout and summer steelhead. Additionally, wetland complexes can be found along all three rivers and along many of the tributaries in this Community Area. In addition, all three rivers have designated floodplains, with the Yakima River having the largest floodplain upstream of its confluence with the Teanaway River. Much of this Community Area contains area with steep slopes, especially in higher elevations, but also in areas near the Yakima and Teanaway rivers. Wellhead protection areas can be found throughout the Community Area.</p> |               |                |

### Objectives and Key Practices

| <b>Protection/Enhancement Objectives</b>   | <b>Key Stewardship Practices</b>  |
|--|---|
| <ul style="list-style-type: none"> <li>Plan intensity, frequency, timing, and duration of grazing to be protective of critical areas</li> <li>Maintain and improve fish habitat including riparian vegetation and fish passage</li> <li>Manage irrigation water so it is delivered, scheduled, and/or applied efficiently</li> </ul> | <ul style="list-style-type: none"> <li>Fence</li> <li>Managed Grazing</li> <li>Watering Facilities</li> <li>Sprinkler System</li> <li>Nutrient Management</li> <li>Stream Habitat Improvement Tree/Shrub Establishment</li> <li>Riparian Forest Buffer</li> </ul> |

### *Attachments*

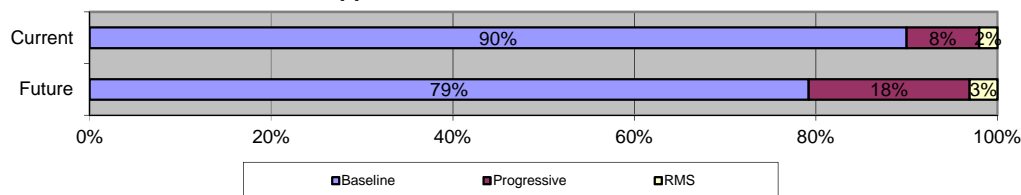
- Forested Upland Community Planning Area Rapid Watershed Assessment Tables
- Forested Upland Community Planning Area Baseline Summary Table



| WATERSHED NAME & CODE  |  | FOREST UPLANDS - FOREST    |                          |                     | LANDUSE ACRES            | 34,763  |  |   |   |
|--|--|----------------------------|--------------------------|---------------------|--------------------------|---|--|---|---|
| LANDUSE TYPE   |  | MIXED                      |                          |                     | TYPICAL UNIT SIZE ACRES  | 120   |  |   |   |
| ASSESSMENT INFORMATION                                       |  |                            |                          |                     | CALCULATED PARTICIPATION | 11%   |  |   |   |
|  |  | Benchmark Conditions       | Future Conditions        |                     | RESOURCE CONCERNS        |   |  |   |   |
| Conservation Systems by Treatment Level                      |  | Total Units                | Existing Unchanged Units | New Treatment Units | Total Units              | Water Quality – Excessive Suspended Sediment and Turbidity in Surface Water | Plant Condition – Productivity, Health and Vigor | Fish and Wildlife – T & E Fish/Wildlife Species: Listed or Proposed under ESA | Profitability - Change in Profitability |
| <b>Baseline</b>  |  | <b>System Rating -&gt;</b> |                          |                     | <b>0</b>                 | <b>0</b>  | <b>0</b>   | <b>0</b>  |   |
| No Conservation Practices being applied at this level        |  | 0                          | 0                        | 0                   | 0                        | 0   | 0  | 0   |   |
| <b>Total Acreage at Baseline</b>                             |  | <b>31,287</b>              | <b>27,532</b>            | <b>0</b>            | <b>27,532</b>            |   |  |   |   |
| <b>Progressive</b>   |  | <b>System Rating -&gt;</b> |                          |                     | <b>5</b>                 | <b>4</b>  | <b>3</b>   | <b>1</b>  |   |
| Channel Stabilization (ft.) 584                              |  | 232                        | 227                      | 287                 | 514                      | 5   | 0  | 1   | -3                                      |
| Fence (ft.) 382  |  | 2,897                      | 2,839                    | 3,585               | 6,424                    | 0   | 1  | 1   | 2                                       |
| Irrigation Water Conveyance, Pipeline (ft.) 430              |  | 3,708                      | 3,634                    | 4,589               | 8,223                    | 5   | 4  | 0   | -1                                      |
| Irrigation Water Management (ac.) 449                        |  | 278                        | 273                      | 344                 | 617                      | 3   | 5  | 0   | 2                                       |
| Nutrient Management (ac.) 590                                |  | 56                         | 55                       | 69                  | 123                      | 1   | 3  | 0   | 1                                       |
| Prescribed Grazing (ac.) 528                                 |  | 139                        | 136                      | 172                 | 308                      | 3   | -2   | 0   | 2                                       |
| Spring Development (no.) 574                                 |  | 2                          | 2                        | 3                   | 5                        | 2   | 1  | 1   | 2                                       |
| Structure for Water Control (no.) 587                        |  | 2                          | 2                        | 3                   | 5                        | 0   | 0  | 5   | 1                                       |
| Tree/Shrub Establishment (ac.) 612                           |  | 6                          | 5                        | 7                   | 12                       | 0   | 4  | 1   | -1                                      |
| Watering Facility (no.) 614                                  |  | 0                          | 0                        | 0                   | 1                        | 0   | 1  | 1   | -2                                      |
| <b>Total Acreage at Progressive Level</b>                    |  | <b>2,781</b>               | <b>2,725</b>             | <b>3,442</b>        | <b>6,167</b>             |   |  |   |   |
| <b>RMS</b>   |  | <b>System Rating -&gt;</b> |                          |                     | <b>2</b>                 | <b>4</b>  | <b>4</b>   | <b>-4</b>   |   |
| Heavy Use Area Protection (ac.) 561                          |  | 1                          | 1                        | 0                   | 1                        | 0   | 0  | 4   | -2                                      |
| Irrigation System, Sprinkler (ac.) 442                       |  | 49                         | 49                       | 26                  | 74                       | 0   | 1  | 0   | -1                                      |
| Residue Management, No-Till/Strip Till/Direct Seed (ac.) 329 |  | 1                          | 1                        | 1                   | 2                        | 3   | 1  | 0   | -1                                      |
| Restoration and Management of Declining Habitats (ac.) 643   |  | 7                          | 7                        | 4                   | 11                       | 0   | 5  | 2   | -3                                      |
| Riparian Forest Buffer (ac.) 391                             |  | 1                          | 1                        | 1                   | 2                        | 0   | 4  | 2   | -2                                      |
| Stream Habitat Improvement and Management (ac.) 395          |  | 1                          | 1                        | 1                   | 2                        | 0   | 0  | 5   | -1                                      |
| Streambank & Shoreline Protection (ft.) 580                  |  | 58                         | 58                       | 31                  | 89                       | 0   | 0  | 0   | -3                                      |
| Upland Wildlife Habitat Management (ac.) 645                 |  | 1                          | 1                        | 1                   | 2                        | 1   | 1  | 2   | -1                                      |
| Water Well (no.) 642   |  | 1                          | 1                        | 1                   | 2                        | 0   | 0  | 1   | -1                                      |
| Wetland Enhancement (ac.) 659                                |  | 1                          | 1                        | 1                   | 2                        | 2   | 4  | 1   | -1                                      |
| Wetland Restoration (ac.) 657                                |  | 1                          | 1                        | 1                   | 2                        | 0   | 0  | 1   | -1                                      |
| <b>Total Acreage at RMS Level</b>                            |  | <b>695</b>                 | <b>695</b>               | <b>368</b>          | <b>1,064</b>             |   |  |   |   |

| WATERSHED NAME & CODE  |  | FOREST UPLANDS - FOREST |                          |                                 |                             | LANDUSE ACRES            |                          | 34,763                           |                          |
|--|--|-------------------------|--------------------------|---------------------------------|-----------------------------|--------------------------|--------------------------|----------------------------------|--------------------------|
| LANDUSE TYPE   |  | MIXED                   |                          |                                 |                             | TYPICAL UNIT SIZE ACRES  |                          | 120                              |                          |
| CONSERVATION COST TABLE                                      |  |                         |                          |                                 |                             | CALCULATED PARTICIPATION |                          | 11%                              |                          |
| Conservation Systems by Treatment Level                      |  | FUTURE                  | FEDERAL                  |                                 |                             | PRIVATE                  |                          |                                  |                          |
|  |  | New Treatment Units     | Installation Cost<br>75% | Management Cost - 3 yrs<br>100% | Technical Assistance<br>30% | Total Present Value Cost | Installation Cost<br>25% | Annual O & M + Mgt Costs<br>100% | Total Present Value Cost |
| <b>Progressive</b>   |  |                         |                          |                                 |                             |                          |                          |                                  |                          |
| Channel Stabilization (ft.) 584                              |  | 287                     | \$19,359                 | \$0                             | \$5,808                     | \$25,166                 | \$6,453                  | \$516                            | \$8,751                  |
| Fence (ft.) 382  |  | 3,585                   | \$6,722                  | \$0                             | \$2,017                     | \$8,738                  | \$2,241                  | \$179                            | \$3,039                  |
| Irrigation Water Conveyance, Pipeline (ft.) 430              |  | 4,589                   | \$13,766                 | \$0                             | \$4,130                     | \$17,896                 | \$4,589                  | \$367                            | \$6,223                  |
| Irrigation Water Management (ac.) 449                        |  | 344                     | \$0                      | \$36,136                        | \$10,841                    | \$44,268                 | \$0                      | \$12,045                         | \$20,197                 |
| Nutrient Management (ac.) 590                                |  | 69                      | \$0                      | \$3,097                         | \$929                       | \$3,794                  | \$0                      | \$1,032                          | \$1,731                  |
| Prescribed Grazing (ac.) 528                                 |  | 172                     | \$903                    | \$0                             | \$271                       | \$1,174                  | \$301                    | \$0                              | \$301                    |
| Spring Development (no.) 574                                 |  | 3                       | \$5,377                  | \$0                             | \$0                         | \$6,991                  | \$1,792                  | \$72                             | \$2,112                  |
| Structure for Water Control (no.) 587                        |  | 3                       | \$8,604                  | \$0                             | \$0                         | \$11,185                 | \$2,868                  | \$229                            | \$3,889                  |
| Tree/Shrub Establishment (ac.) 612                           |  | 7                       | \$3,485                  | \$0                             | \$0                         | \$4,530                  | \$1,162                  | \$46                             | \$1,368                  |
| Watering Facility (no.) 614                                  |  | 0                       | \$215                    | \$0                             | \$0                         | \$280                    | \$72                     | \$9                              | \$110                    |
| <b>Subtotal</b>  |  | <b>3,442</b>            | <b>\$58,431</b>          | <b>\$39,234</b>                 | <b>\$29,299</b>             | <b>\$124,022</b>         | <b>\$19,477</b>          | <b>\$14,497</b>                  | <b>\$47,721</b>          |
| <b>RMS</b>   |  |                         |                          |                                 |                             |                          |                          |                                  |                          |
| Heavy Use Area Protection (ac.) 561                          |  | 0                       | \$57                     | \$0                             | \$17                        | \$74                     | \$19                     | \$4                              | \$36                     |
| Irrigation System, Sprinkler (ac.) 442                       |  | 26                      | \$29,018                 | \$0                             | \$8,706                     | \$37,724                 | \$9,673                  | \$774                            | \$13,118                 |
| Residue Management, No-Till/Strip Till/Direct Seed (ac.) 329 |  | 1                       | \$0                      | \$66                            | \$20                        | \$81                     | \$0                      | \$22                             | \$37                     |
| Restoration and Management of Declining Habitats (ac.) 643   |  | 4                       | \$69                     | \$0                             | \$21                        | \$90                     | \$23                     | \$5                              | \$44                     |
| Riparian Forest Buffer (ac.) 391                             |  | 1                       | \$696                    | \$0                             | \$209                       | \$905                    | \$232                    | \$28                             | \$356                    |
| Stream Habitat Improvement and Management (ac.) 395          |  | 1                       | \$2,819                  | \$0                             | \$846                       | \$3,665                  | \$940                    | \$75                             | \$1,274                  |
| Streambank & Shoreline Protection (ft.) 580                  |  | 31                      | \$2,073                  | \$0                             | \$622                       | \$2,695                  | \$691                    | \$55                             | \$937                    |
| Upland Wildlife Habitat Management (ac.) 645                 |  | 1                       | \$0                      | \$22                            | \$7                         | \$27                     | \$0                      | \$7                              | \$12                     |
| Water Well (no.) 642   |  | 1                       | \$4,671                  | \$0                             | \$1,401                     | \$6,072                  | \$1,557                  | \$62                             | \$1,834                  |
| Wetland Enhancement (ac.) 659                                |  | 1                       | \$124                    | \$0                             | \$37                        | \$162                    | \$41                     | \$2                              | \$49                     |
| Wetland Restoration (ac.) 657                                |  | 1                       | \$124                    | \$0                             | \$0                         | \$162                    | \$41                     | \$2                              | \$49                     |
| <b>Subtotal</b>  |  | <b>368</b>              | <b>\$39,652</b>          | <b>\$88</b>                     | <b>\$11,922</b>             | <b>\$51,655</b>          | <b>\$13,217</b>          | <b>\$1,036</b>                   | <b>\$17,746</b>          |
| <b>Grand Total</b>   |  | <b>3,810</b>            | <b>\$98,082</b>          | <b>\$39,322</b>                 | <b>\$41,221</b>             | <b>\$175,678</b>         | <b>\$32,694</b>          | <b>\$15,532</b>                  | <b>\$65,467</b>          |

Resource Status Cumulative Conservation Application on Private Lands



| Chart Refers To               |       |
|-------------------------------|-------|
| Landuse Type                  | MIXED |
| Calculated Participation Rate | 11%   |

| Average PV Costs per Ac |          |         |
|-------------------------|----------|---------|
| System                  | Federal  | Private |
| Prog                    | \$36.04  | \$13.87 |
| RMS                     | \$140.18 | \$48.16 |

## Kittitas County VSP Work Plan - Forested Upland Community Data Summary

| Landcover                       | Acres         |
|---------------------------------|---------------|
| <b>Total Area</b>               | <b>90,800</b> |
| <b>Agricultural Landcover</b>   | <b>34,763</b> |
| <i>Irrigated Cropland</i>       | 82            |
| <i>Irrigated Pasture</i>        | 19            |
| <i>Orchard/vineyard</i>         | 0             |
| <i>Dryland</i>                  | 1,420         |
| <i>Rangeland - Shrub Steppe</i> | 0             |
| <i>Rangeland-Forest</i>         | 33,242        |
| <b>Total Streams (miles)</b>    | <b>198</b>    |

| Critical Areas                           | Areas within Agricultural Lands |              |                        |                  |              |
|--|---------------------------------|--------------|------------------------|------------------|--------------|
|  | Irrigated                       | Dryland      | Rangeland-Shrub Steppe | Rangeland-Forest | Total        |
|  | <i>Miles</i>                    | <i>Miles</i> | <i>Miles</i>           | <i>Miles</i>     | <i>Miles</i> |
| <b>Streams Total</b>                     | 2                               | 13           | 0                      | 184              | 198          |
| <i>Shorelines of the State</i>           | 1                               | 0            | 0                      | 13               | 14           |
| <i>Fish Use or Potential Fish Use</i>    | 0                               | 2            | 0                      | 22               | 24           |
| <i>No Fish Use</i>                       | 0                               | 10           | 0                      | 122              | 133          |
| <i>Unknown</i>                           | 0                               | 0            | 0                      | 27               | 27           |
| <b>Fish Habitat (PHS)</b>                |                                 |              |                        |                  |              |
| <i>Summer Steelhead (ESA threatened)</i> | 1                               | 0            | 0                      | 13               | 14           |
| <i>Bull Trout (ESA threatened)</i>       | 1                               | 0            | 0                      | 16               | 17           |
| <i>Upper Yakima River Spring Chinook</i> | 1                               | 0            | 0                      | 12               | 13           |
| <i>Upper Yakima Coho</i>                 | 1                               | 0            | 0                      | 7                | 8            |
| <i>Rainbow Trout</i>                     | 1                               | 0            | 0                      | 21               | 22           |
| <i>Westslope Cutthroat Trout</i>         | 1                               | 0            | 0                      | 17               | 18           |

| Critical Areas                           | Areas within Agricultural Lands |         |                        |                  |        |
|--|---------------------------------|---------|------------------------|------------------|--------|
|  | Irrigated                       | Dryland | Rangeland-Shrub Steppe | Rangeland-Forest | Total  |
|  | Acres                           | Acres   | Acres                  | Acres            | Acres  |
| <b>Wetlands (all types)</b>              | 6                               | 5       | 0                      | 403              | 414    |
| <i>Freshwater Emergent Wetland</i>       | 0                               | 5       | 0                      | 124              | 129    |
| <i>Freshwater Forested/Shrub Wetland</i> | 6                               | 0       | 0                      | 260              | 266    |
| <i>Lake/Pond</i>                         | 0                               | 0       | 0                      | 10               | 10     |
| <i>Riverine</i>                          | 0                               | 0       | 0                      | 9                | 9      |
| <i>Other</i>                             | 0                               | 0       | 0                      | 0                | 0      |
| <b>Frequently Flooded Areas</b>          | 0                               | 0       | 0                      | 808              | 808    |
| <b>Wellhead Protection Areas</b>         | 0                               | 0       | 0                      | 1                | 1      |
| <b>Water Erosion Potential</b>           | 0                               | 159     | 0                      | 12,536           | 12,695 |
| <i>NRCS Severe to Very Severe</i>        | 0                               | 148     | 0                      | 10,408           | 10,556 |
| <i>Steep Slopes</i>                      | 0                               | 11      | 0                      | 2,128            | 2,139  |
| <b>Priority Habitats and Species</b>     |                                 |         |                        |                  |        |
| <b>Birds</b>                             |                                 |         |                        |                  |        |
| <i>Spotted Owl</i>                       | 0                               | 300     | 0                      | 7,068            | 7,368  |
| <b>Mammals</b>                           |                                 |         |                        |                  |        |
| <i>Mule Deer</i>                         | 0                               | 1,400   | 0                      | 9,261            | 10,661 |
| <i>Elk</i>                               | 0                               | 1,400   | 0                      | 17,603           | 19,003 |
| <i>Bighorn Sheep</i>                     | 0                               | 0       | 0                      | 956              | 956    |
| <b>Reptiles</b>                          |                                 |         |                        |                  |        |
| <i>Sharp-Tail Snake</i>                  | 0                               | 0       | 0                      | 14               | 14     |
| <b>Cliff Bluffs</b>                      |                                 |         |                        |                  |        |
|  | 0                               | 0       | 0                      | 24               | 24     |
| <b>Shrub Steppe</b>                      |                                 |         |                        |                  |        |
|  | 0                               | 0       | 0                      | 116              | 116    |

## Shrub-Steppe Upland Community Planning Area

### Profile

| <b>Agricultural Landcover and Primary Crops/Products</b>   |                |                |
|--|----------------|----------------|
| <p>The Shrub-Steppe Upland Community Planning Area includes areas upland of the Kittitas Valley and along the Columbia River. These areas are characterized hilly terrain with shrub-steppe habitat.</p> |                |                |
| <b>Landcover</b>   | <b>Acres</b>   | <b>Percent</b> |
| <b>Total Community Area</b>  | <b>208,055</b> |                |
| <b>Agricultural Landcover</b>  | <b>90,197</b>  | <b>43.4%</b>   |
| <i>Irrigated Cropland</i>  | 84             | 0.1%           |
| <i>Irrigated Pasture</i>   | 308            | 0.3%           |
| <i>Orchard/vineyard</i>  | 227            | 0.3%           |
| <i>Dryland</i>   | 1,939          | 2.1%           |
| <i>Rangeland – Shrub-Steppe</i>  | 81,422         | 90.3%          |
| <i>Rangeland – Forest</i>  | 5,121          | 5.7%           |

Agriculture in this community area consists of mainly rangeland with a small amount of dryland, irrigated crop- and pasture-land, and orchard/vineyard. Rangelands cover much of this area and often overlap with shrub-steppe habitat. Dryland agriculture only covers of a small portion of this area and is mainly enrolled in the Conservation Reserve Program. The orchards and vineyards in this area are located in the Yakima River Canyon and grow tree fruit and grapes.

### Water Resources, Soils, and Terrain

The Yakima River is the only large waterbody that interact with this Community Area, and the river provides irrigation water for the orchards, vineyards, and irrigated cropland located along or near it. Many small creeks and streams run through this Community Area providing water for livestock. The terrain in this area is mainly hilly and dominated by shrubs and grasses with stony or cobbly loam soils.

### Critical Areas Presence

This Community Area does not have a large wetland presence with only a few small wetlands scattered throughout the area. Additionally, the upstream ends of many of the Kittitas Valley streams and many Columbia River tributaries flow through the Shrub-Steppe Upland Community Area. There are many steep slopes in this area, but there is a low presence of landslide hazard areas. This Community Area has a low overlap with wellhead protection areas frequently flooded areas.

### Objectives and Key Practices

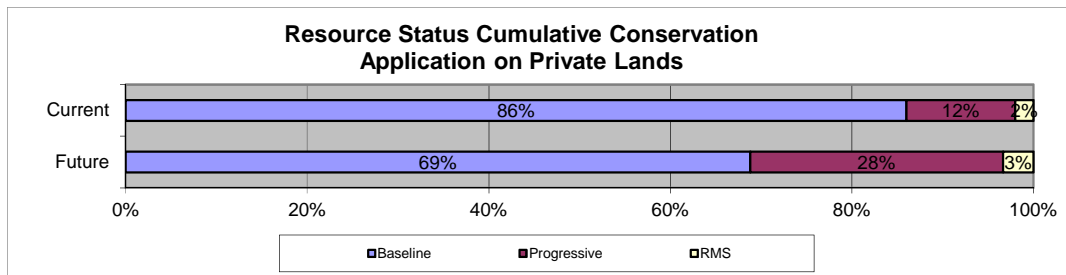
| <b>Protection/Enhancement Objectives</b>  | <b>Key Stewardship Practices</b>  |
|---|---|
| <ul style="list-style-type: none"> <li>Plan intensity, frequency, timing, and duration of grazing to be protective of critical areas</li> <li>Maintain and improve fish habitat including riparian vegetation</li> <li>Manage irrigation water so it is delivered, scheduled, and/or applied efficiently</li> </ul> | <ul style="list-style-type: none"> <li>Fence</li> <li>Managed Grazing</li> <li>Sprinkler System</li> <li>Irrigation Water Management</li> <li>Watering Facilities</li> <li>Range Seeding Tree/Shrub Establishment</li> <li>Riparian Forest Buffer</li> <li>Streambank Protection and Restoration</li> </ul> |

### *Attachments*

- Shrub-Steppe Upland Community Planning Area Rapid Watershed Assessment Tables
- Shrub-Steppe Upland Community Planning Area Baseline Summary Table

| WATERSHED NAME & CODE  |  | SHRUB STEPPE UPLANDS - SHRUB STEPPE |                          |                     | LANDUSE ACRES            | 90,197  |  |   |   |
|--|--|-------------------------------------|--------------------------|---------------------|--------------------------|---|--|---|---|
| LANDUSE TYPE   |  | MIXED                               |                          |                     | TYPICAL UNIT SIZE ACRES  | 240   |  |   |   |
| ASSESSMENT INFORMATION                                       |  |                                     |                          |                     | CALCULATED PARTICIPATION | 18%   |  |   |   |
|  |  | Benchmark Conditions                | Future Conditions        |                     |                          | RESOURCE CONCERNS   |  |   |   |
| Conservation Systems by Treatment Level                      |  | Total Units                         | Existing Unchanged Units | New Treatment Units | Total Units              | Water Quality – Excessive Suspended Sediment and Turbidity in Surface Water | Plant Condition – Productivity, Health and Vigor | Fish and Wildlife – T & E Fish/Wildlife Species: Listed or Proposed under ESA | Profitability - Change in Profitability |
| <b>Baseline</b>  |  | <b>System Rating -&gt;</b>          |                          |                     | <b>3</b>                 | <b>3</b>  | <b>0</b>   | <b>0</b>  |   |
| Irrigation System, Sprinkler (ac.) 442                       |  | 2,327                               | 1,862                    | 0                   | 1,862                    | 0   | 5  | 0   | -1                                      |
| Irrigation Water Conveyance, Pipeline (ft.) 430              |  | 48,481                              | 38,785                   | 0                   | 38,785                   | 4   | 3  | 0   | -1                                      |
| Irrigation Water Management (ac.) 449                        |  | 776                                 | 621                      | 0                   | 621                      | 3   | -2   | 0   | 2                                       |
| <b>Total Acreage at Baseline</b>                             |  | <b>77,569</b>                       | <b>62,056</b>            | <b>0</b>            | <b>62,056</b>            |   |  |   |   |
| <b>Progressive</b>   |  | <b>System Rating -&gt;</b>          |                          |                     | <b>5</b>                 | <b>4</b>  | <b>4</b>   | <b>0</b>  |   |
| Channel Stabilization (ft.) 584                              |  | 451                                 | 433                      | 614                 | 1,047                    | 5   | 0  | 0   | -3                                      |
| Fence (ft.) 382  |  | 33,824                              | 32,471                   | 46,057              | 78,528                   | 0   | 1  | 1   | 2                                       |
| Irrigation System, Microirrigation (ac.) 441                 |  | 2                                   | 2                        | 3                   | 5                        | 5   | 4  | 0   | -1                                      |
| Nutrient Management (ac.) 590                                |  | 216                                 | 208                      | 295                 | 503                      | 0   | 5  | 0   | 1                                       |
| Pest Management (ac.) 595                                    |  | 216                                 | 208                      | 295                 | 503                      | 0   | 3  | 2   | 1                                       |
| Range Planting (ac.) 550                                     |  | 1,082                               | 1,039                    | 1,474               | 2,513                    | 2   | 1  | 1   | 2                                       |
| Residue Management, No-Till/Strip Till/Direct Seed (ac.) 329 |  | 16                                  | 16                       | 22                  | 38                       | 0   | 0  | 0   | -1                                      |
| Structure for Water Control (no.) 587                        |  | 5                                   | 4                        | 6                   | 10                       | 0   | 1  | 5   | 1                                       |
| Tree/Shrub Establishment (ac.) 612                           |  | 3                                   | 3                        | 4                   | 8                        | 2   | 4  | 1   | -1                                      |
| Watering Facility (no.) 614                                  |  | 3                                   | 3                        | 4                   | 6                        | 4   | 1  | 1   | -2                                      |
| <b>Total Acreage at Progressive Level</b>                    |  | <b>10,824</b>                       | <b>10,391</b>            | <b>14,738</b>       | <b>25,129</b>            |   |  |   |   |
| <b>RMS</b>   |  | <b>System Rating -&gt;</b>          |                          |                     | <b>3</b>                 | <b>5</b>  | <b>5</b>   | <b>-2</b>   |   |
| Fish Passage (no.) 396                                       |  | 2                                   | 2                        | 1                   | 3                        | 0   | 0  | 4   | -1                                      |
| Heavy Use Area Protection (ac.) 561                          |  | 2                                   | 2                        | 1                   | 3                        | 0   | 1  | -1  | -2                                      |
| Prescribed Grazing (ac.) 528                                 |  | 451                                 | 451                      | 302                 | 753                      | 0   | 5  | 2   | 2                                       |
| Restoration and Management of Declining Habitats (ac.) 643   |  | 1                                   | 1                        | 1                   | 2                        | 0   | 0  | 0   | -3                                      |
| Riparian Forest Buffer (ac.) 391                             |  | 2                                   | 2                        | 1                   | 3                        | 0   | 4  | 5   | -2                                      |
| Spring Development (no.) 574                                 |  | 4                                   | 4                        | 3                   | 6                        | 0   | 0  | 0   | 2                                       |
| Stream Habitat Improvement and Management (ac.) 395          |  | 1                                   | 1                        | 1                   | 2                        | 1   | 1  | 5   | -1                                      |
| Streambank & Shoreline Protection (ft.) 580                  |  | 75                                  | 75                       | 50                  | 126                      | 0   | 0  | 3   | -3                                      |
| Trust Water Rights Program (ac/ft) 999                       |  | 90                                  | 90                       | 60                  | 151                      | 0   | 0  | 3   | 2                                       |
| Upland Wildlife Habitat Management (ac.) 645                 |  | 4                                   | 4                        | 2                   | 6                        | 0   | 4  | 2   | -1                                      |
| Water Well (no.) 642   |  | 1                                   | 1                        | 1                   | 2                        | 1   | 5  | 1   | -1                                      |
| Wetland Enhancement (ac.) 659                                |  | 3                                   | 3                        | 2                   | 5                        | 3   | 4  | 1   | -1                                      |
| Wetland Restoration (ac.) 657                                |  | 2                                   | 2                        | 1                   | 3                        | 3   | 4  | 1   | -1                                      |
| Wetland Wildlife Habitat Management (ac.) 644                |  | 1                                   | 1                        | 1                   | 2                        | 1   | 4  | 1   | -1                                      |
| <b>Total Acreage at RMS Level</b>                            |  | <b>1,804</b>                        | <b>1,804</b>             | <b>1,209</b>        | <b>3,013</b>             |   |  |   |   |

| WATERSHED NAME & CODE  |  | SHRUB STEPPE UPLANDS - SHRUB STEPPE |                          |                                 |                             | LANDUSE ACRES            |                          | 90,197                           |                          |
|--|--|-------------------------------------|--------------------------|---------------------------------|-----------------------------|--------------------------|--------------------------|----------------------------------|--------------------------|
| LANDUSE TYPE   |  | MIXED                               |                          |                                 |                             | TYPICAL UNIT SIZE ACRES  |                          | 240                              |                          |
| CONSERVATION COST TABLE                                      |  |                                     |                          |                                 |                             | CALCULATED PARTICIPATION |                          | 18%                              |                          |
| Conservation Systems by Treatment Level                      |  | FUTURE                              | FEDERAL                  |                                 |                             |                          | PRIVATE                  |                                  |                          |
|  |  | New Treatment Units                 | Installation Cost<br>75% | Management Cost - 3 yrs<br>100% | Technical Assistance<br>30% | Total Present Value Cost | Installation Cost<br>25% | Annual O & M + Mgt Costs<br>100% | Total Present Value Cost |
| <b>Progressive</b>   |  |                                     |                          |                                 |                             |                          |                          |                                  |                          |
| Channel Stabilization (ft.) 584                              |  | 614                                 | \$41,451                 | \$0                             | \$12,435                    | \$53,887                 | \$13,817                 | \$1,105                          | \$18,738                 |
| Fence (ft.) 382  |  | 46,057                              | \$86,357                 | \$0                             | \$25,907                    | \$112,264                | \$28,786                 | \$2,303                          | \$39,037                 |
| Irrigation System, Microirrigation (ac.) 441                 |  | 3                                   | \$3,316                  | \$0                             | \$995                       | \$4,311                  | \$1,105                  | \$221                            | \$2,090                  |
| Nutrient Management (ac.) 590                                |  | 295                                 | \$0                      | \$13,264                        | \$3,979                     | \$16,249                 | \$0                      | \$4,421                          | \$7,414                  |
| Pest Management (ac.) 595                                    |  | 295                                 | \$0                      | \$17,686                        | \$5,306                     | \$21,666                 | \$0                      | \$5,895                          | \$9,885                  |
| Range Planting (ac.) 550                                     |  | 1,474                               | \$99,483                 | \$0                             | \$29,845                    | \$129,328                | \$33,161                 | \$1,326                          | \$39,066                 |
| Residue Management, No-Till/Strip Till/Direct Seed (ac.) 329 |  | 22                                  | \$0                      | \$1,990                         | \$0                         | \$2,437                  | \$0                      | \$663                            | \$1,112                  |
| Structure for Water Control (no.) 587                        |  | 6                                   | \$18,423                 | \$0                             | \$0                         | \$23,950                 | \$6,141                  | \$491                            | \$8,328                  |
| Tree/Shrub Establishment (ac.) 612                           |  | 4                                   | \$2,238                  | \$0                             | \$0                         | \$2,910                  | \$746                    | \$30                             | \$879                    |
| Watering Facility (no.) 614                                  |  | 4                                   | \$2,763                  | \$0                             | \$0                         | \$3,592                  | \$921                    | \$111                            | \$1,413                  |
| <b>Subtotal</b>  |  | <b>14,738</b>                       | <b>\$254,031</b>         | <b>\$32,940</b>                 | <b>\$86,091</b>             | <b>\$370,593</b>         | <b>\$84,677</b>          | <b>\$16,567</b>                  | <b>\$127,961</b>         |
| <b>RMS</b>   |  |                                     |                          |                                 |                             |                          |                          |                                  |                          |
| Fish Passage (no.) 396                                       |  | 1                                   | \$2,738                  | \$0                             | \$821                       | \$3,560                  | \$913                    | \$73                             | \$1,238                  |
| Heavy Use Area Protection (ac.) 561                          |  | 1                                   | \$186                    | \$0                             | \$56                        | \$242                    | \$62                     | \$12                             | \$117                    |
| Prescribed Grazing (ac.) 528                                 |  | 302                                 | \$1,586                  | \$0                             | \$476                       | \$2,062                  | \$529                    | \$0                              | \$529                    |
| Restoration and Management of Declining Habitats (ac.) 643   |  | 1                                   | \$11                     | \$0                             | \$3                         | \$15                     | \$4                      | \$1                              | \$7                      |
| Riparian Forest Buffer (ac.) 391                             |  | 1                                   | \$1,142                  | \$0                             | \$343                       | \$1,485                  | \$381                    | \$46                             | \$584                    |
| Spring Development (no.) 574                                 |  | 3                                   | \$4,721                  | \$0                             | \$1,416                     | \$6,138                  | \$1,574                  | \$63                             | \$1,854                  |
| Stream Habitat Improvement and Management (ac.) 395          |  | 1                                   | \$2,312                  | \$0                             | \$693                       | \$3,005                  | \$771                    | \$62                             | \$1,045                  |
| Streambank & Shoreline Protection (ft.) 580                  |  | 50                                  | \$3,399                  | \$0                             | \$1,020                     | \$4,419                  | \$1,133                  | \$91                             | \$1,537                  |
| Trust Water Rights Program (ac/ft) 999                       |  | 60                                  | \$67,986                 | \$0                             | \$20,396                    | \$88,382                 | \$22,662                 | \$0                              | \$22,662                 |
| Upland Wildlife Habitat Management (ac.) 645                 |  | 2                                   | \$0                      | \$73                            | \$22                        | \$89                     | \$0                      | \$24                             | \$41                     |
| Water Well (no.) 642   |  | 1                                   | \$5,745                  | \$0                             | \$0                         | \$7,468                  | \$1,915                  | \$77                             | \$2,256                  |
| Wetland Enhancement (ac.) 659                                |  | 2                                   | \$408                    | \$0                             | \$0                         | \$530                    | \$136                    | \$5                              | \$160                    |
| Wetland Restoration (ac.) 657                                |  | 1                                   | \$272                    | \$0                             | \$0                         | \$354                    | \$91                     | \$4                              | \$107                    |
| Wetland Wildlife Habitat Management (ac.) 644                |  | 1                                   | \$0                      | \$18                            | \$0                         | \$22                     | \$0                      | \$6                              | \$10                     |
| <b>Subtotal</b>  |  | <b>1,209</b>                        | <b>\$90,507</b>          | <b>\$91</b>                     | <b>\$27,179</b>             | <b>\$117,770</b>         | <b>\$30,169</b>          | <b>\$463</b>                     | <b>\$32,146</b>          |
| <b>Grand Total</b>   |  | <b>15,947</b>                       | <b>\$344,538</b>         | <b>\$33,031</b>                 | <b>\$113,271</b>            | <b>\$488,363</b>         | <b>\$114,846</b>         | <b>\$17,030</b>                  | <b>\$160,108</b>         |



| Chart Refers To               |       |
|-------------------------------|-------|
| Landuse Type                  | MIXED |
| Calculated Participation Rate | 18%   |

| Average PV Costs per Ac |         |         |
|-------------------------|---------|---------|
| System                  | Federal | Private |
| Prog                    | \$25.15 | \$8.68  |
| RMS                     | \$97.44 | \$26.60 |



## Kittitas County VSP Work Plan - Shrub-steppe Upland Community Data Summary

| Landcover                       | Acres          |
|---------------------------------|----------------|
| <b>Total Area</b>               | <b>208,055</b> |
| <b>Agricultural Landcover</b>   | <b>90,197</b>  |
| <i>Irrigated Cropland</i>       | 84             |
| <i>Irrigated Pasture</i>        | 308            |
| <i>Orchard/vineyard</i>         | 1,323          |
| <i>Dryland</i>                  | 1,939          |
| <i>Rangeland - Shrub Steppe</i> | 81,422         |
| <i>Rangeland-Forest</i>         | 5,121          |
| <b>Total Streams (miles)</b>    | <b>420</b>     |

| Critical Areas                                   | Areas within Agricultural Lands |              |                        |                  |              |
|--|---------------------------------|--------------|------------------------|------------------|--------------|
|  | Irrigated                       | Dryland      | Rangeland-Shrub Steppe | Rangeland-Forest | Total        |
|  | <i>Miles</i>                    | <i>Miles</i> | <i>Miles</i>           | <i>Miles</i>     | <i>Miles</i> |
| <b>Streams Total</b>                             | 8                               | 7            | 381                    | 24               | 420          |
| <i>Shorelines of the State</i>                   | 0                               | 0            | 4                      | 0                | 4            |
| <i>Fish Use or Potential Fish Use</i>            | 2                               | 0            | 76                     | 5                | 83           |
| <i>No Fish Use</i>                               | 3                               | 3            | 139                    | 9                | 154          |
| <i>Unknown (this includes irrigation canals)</i> | 3                               | 4            | 162                    | 10               | 179          |
| <b>Fish Habitat (PHS)</b>                        |                                 |              |                        |                  |              |
| <i>Summer Steelhead (ESA threatened)</i>         | 0                               | 0            | 5                      | 0                | 5            |
| <i>Bull Trout (ESA threatened)</i>               | 0                               | 0            | 1                      | 0                | 1            |
| <i>Upper Yakima River Spring Chinook</i>         | 0                               | 0            | 4                      | 0                | 4            |
| <i>Upper Yakima Coho</i>                         | 0                               | 0            | 1                      | 0                | 1            |
| <i>Rainbow Trout</i>                             | 0                               | 0            | 18                     | 1                | 19           |
| <i>Westslope Cutthroat</i>                       | 0                               | 0            | 8                      | 1                | 9            |
| <i>Columbia River Fall Chum</i>                  | 0                               | 0            | 2                      | 0                | 2            |
| <i>Columbia River Kokanee</i>                    | 0                               | 0            | 2                      | 0                | 2            |
| <i>Columbia River Spring Chinook</i>             | 0                               | 0            | 2                      | 0                | 2            |
| <i>Columbia River Summer Chinook</i>             | 0                               | 0            | 2                      | 0                | 2            |
| <i>Columbia River Coho</i>                       | 0                               | 0            | 2                      | 0                | 2            |
| <i>Hanford Reach Fall Chinook</i>                | 0                               | 0            | 2                      | 0                | 2            |

| Critical Areas                           | Areas within Agricultural Lands |         |                            |                      |        |
|--|---------------------------------|---------|----------------------------|----------------------|--------|
|  | Irrigated                       | Dryland | Rangeland-<br>Shrub Steppe | Rangeland-<br>Forest | Total  |
|  | Acres                           | Acres   | Acres                      | Acres                | Acres  |
| <b>Wetlands (all types)</b>              | 4                               | 5       | 226                        | 14                   | 249    |
| <i>Freshwater Emergent Wetland</i>       | 2                               | 2       | 104                        | 7                    | 115    |
| <i>Freshwater Forested/Shrub Wetland</i> | 1                               | 2       | 68                         | 4                    | 75     |
| <i>Lake/Pond</i>                         | 1                               | 1       | 31                         | 2                    | 35     |
| <i>Riverine</i>                          | 0                               | 0       | 15                         | 1                    | 16     |
| <i>Other</i>                             | 0                               | 0       | 8                          | 0                    | 8      |
| <b>Frequently Flooded Areas</b>          | 81                              | 0       | 328                        | 54                   | 463    |
| <b>Wellhead Protection Areas</b>         | 0                               | 0       | 0                          | 0                    | 0      |
| <b>Hazard Slopes</b>                     | 0                               | 0       | 24,310                     | 2,208                | 26,518 |
| 25% to 50%                               | 0                               | 0       | 22,278                     | 1,834                | 24,112 |
| Over 50%                                 | 0                               | 0       | 2,032                      | 374                  | 2,405  |
| <b>Priority Habitats and Species</b>     |                                 |         |                            |                      |        |
| <b>Birds</b>                             |                                 |         |                            |                      |        |
| <i>Golden Eagle</i>                      | 0                               | 0       | 100                        | 0                    | 100    |
| <i>Burrowing Owl</i>                     | 0                               | 0       | 7                          | 0                    | 7      |
| <i>Greater Sage Grouse</i>               | 0                               | 0       | 2490                       | 0                    | 2,490  |
| <i>Dusky Grouse</i>                      | 0                               | 0       | 187                        | 0                    | 187    |
| <i>American White Pelican</i>            | 0                               | 0       | 1                          | 0                    | 1      |
| <b>Mammals</b>                           |                                 |         |                            |                      |        |
| <i>Mule Deer</i>                         | 1,040                           | 1,176   | 49,397                     | 3107                 | 54,720 |
| <i>Elk</i>                               | 623                             | 705     | 29,592                     | 1861                 | 32,781 |
| <i>Bighorn Sheep</i>                     | 225                             | 1,487   | 11,083                     | 0                    | 12,795 |
| <i>Townsend's Ground Squirrel</i>        | 0                               | 0       | 6                          | 0                    | 6      |
| <b>Oak Woodland</b>                      | 0                               | 0       | 184                        | 0                    | 184    |
| <b>Shrub Steppe</b>                      | 0                               | 1,939   | 42,142                     | 0                    | 44,081 |
| <b>Biodiversity Areas and Corridor</b>   | 388                             | 0       | 15,391                     | 0                    | 15,779 |
| <b>Cliffs and Bluffs</b>                 | 0                               | 0       | 350                        | 0                    | 350    |
| <b>Talus Slopes</b>                      | 0                               | 0       | 26                         | 0                    | 26     |