| Date: |  | Name: | Site: |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Form T <br> Tidal Data <br> ORWAP V 3.2 |  | Conduct an assessment only after reading the accompanying Manual and explanations in column E below. For each affirmative answer, change the 0 in the "Data" column to a "1". Answer all items except where directed to skip to others. Questions whose cells in "Data" column have a "W" MUST be answered only for the ENTIRE wetland and bordering waters. | For a list of functions to which each question pertains, see bracketed codes in column E . Codes for functions and their benefits are: WS= Water Storage, WC= Water Cooling, SR= Sediment Retention, PR= Phosphorus Retention, NR= Nitrate Removal, CS= Carbon Sequestration, OE= Organic Export, INV=Invertebrates, FA= Anadromous Fish, FR= Resident Fish, AM = Amphibians, WBF= Feeding Waterbirds, WBN= Nesting Waterbirds, SBM= Songbirds, Mammals, \& Raptors, POL= Pollinators, PH= Plant Habitat, PU= Public Use \& Recognition, EC=Ecological Condition, Sens= Sensitivity, STR= Stressors. |  |  | For guidance and detailed descriptions of how Excel calculates the numbers in the Scores worksheet, see the Technical Supplement and Appendix B of the Manual. For a documented rationale for each indicator, open each of the worksheet tabs at the bottom (one for each function or value) and see column H . |
| \# | Indicators | Condition Choices | Data | Explanations, Definitions (Column E) | Cell Name | Comments |
|  | Tidal Wetland (TidalT) | This is a tidal welland (either freshwater or saltwater). Enter 1, if true and continue. | 0 | Tidal wetland - a wetland that receives tidal water at least once during a normal year, regardless of salinity, and dominated by emergent or woody vegetation. Tidal flooding occurs on a 6 -hour cycle DURING THE TIME it is flooded by tide, which may be as infreuent as once per year. If NWI map shows the wetland with a code beginning with E (for estuarine), assume the wetland to be tidal. However, some wetlands lacking that code are also tidal. | Tidal |  |
| T1 | $\begin{aligned} & \text { Estuarine Position } \\ & \text { (EstPosT) } \end{aligned}$ | The AA's relative position in the estuary is: |  | For head-of-tide, review the ORWAP Map Viewer Heads of Tide (expand Hydrology) or check with local sources. <br> [PR, PRv, NR, NRv, AM, PD, OE, CS] |  |  |
|  |  | Lower $1 / 3$ (often on a bay and distant from the head-of-itide of a major river, includes most saline tidal wetlands). | 0 |  |  |  |
|  |  | Mid 1/3. | 0 |  |  |  |
|  |  | Upper $1 / 3$ ( near the head-0f-tide of a major river, includes most brackish and fresh tidal wetlands). | 0 |  |  |  |
| T2 | Salinity (SalinT) | At high tide during most of the year, the daily salinity in most of the inundated part of the AA is: |  | Saline or brackish conditions are commonly indicated by a prevalence of particular plant species. Consult the ORWAP Supplemental Information(Excel) file's P_Salt worksheet. <br> Also refer to Estuary Salinity maps (see link in ORWAP Map Viewer report under the Location Information table), or DSLI's ORWAP web site, or obtain salinity data from the ODEQ LASAR web site or local sources. However, salinity in estuaries can vary tremendously depending on river discharge and other factors. <br> [SR, PR, NR, AM, PD, SBM, OE, CS] |  |  |
|  |  | Saline (>25 ppt salinity, undiluted seawater). | 0 |  |  |  |
|  |  | Moderately saline (5 to $25 \mathrm{ppt} \mathrm{salinity)}$. | 0 |  |  |  |
|  |  | Brackish (0.5 to <5 ppt salinity, "oligohaline"). | 0 |  |  |  |
|  |  | Fresh (<0.5 ppt salinity). | 0 |  |  |  |
|  |  | Unknown. | 0 |  |  |  |
| T3 | Low Marsh (LowMarshT) | The percent of the vegetated part of the AA that is "low marsh" (covered by tidal water for part of almost every day) is: |  | Include any natural channels within the marsh that are inundated at least once daily by tide. For plant indicator species, see file ORWAP Supplemental Information (Excel) file's worksheet P_LowTidal. <br> [SR, PR, FA, AM, WBF, INV, PD, SBM, OE, CS,POL] |  |  |
|  |  | None, or < $<1 \%$. | 0 |  |  |  |
|  |  | 1 to <10\%. | 0 |  |  |  |
|  |  | 10 to <25\%. | 0 |  |  |  |
|  |  | $25<50 \%$. | 0 |  |  |  |
|  |  | 50 to < $75 \%$. | 0 |  |  |  |
|  |  | 75 to 90\%. | 0 |  |  |  |
|  |  | >90\%. | 0 |  |  |  |
| T4 | Width of Vegetated Zone <br> at Daily High Tide <br> (WidthHiT) | At average daily HIGH tide condition, the width of the vegetated wetland that separates adjoining uplands (if any) from subtidal water within or adjoining the AA, is predominantly: |  | Vegetated wetland in this case does not include underwater or floating-leaved plants ( i.e., aquatic bed). <br> Measure the width perpendicular to the open water part. <br> For most sites larger than 5 hectares and with persistent water, measure the width using aerial imagery rather than estimating in the field. <br> $[S R, P R, N R, F A, A M, P D, P O L, S B M, O E, C S]$ |  |  |
|  |  | < 5 ft , or no vegetation between upland and subbidal water. | 0 |  |  |  |
|  |  | 5 to <30 ft. | 0 |  |  |  |
|  |  | 30 to < $50 \mathrm{ft}$. | 0 |  |  |  |
|  |  | 50 to <100 ft. | 0 |  |  |  |
|  |  | 100 to 300 ft . | 0 |  |  |  |
|  |  | 300 ft . | 0 |  |  |  |


| T5 | $\begin{aligned} & \text { Width of Vegetated Zone } \\ & \text { at Daily Low Tide } \end{aligned}$ | At average daily LOW tide condition, the width of the vegetated wetland that separates adjoining uplands (if any) from subtidal water within or adjoining the AA , is predominantly: |  | [SR, PR, NR, FA, WBF, OE, CS, Sens] |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | (WidthLoT) | <5 ft, or no vegetation between upland and subtidal water. | 0 |  |  |
|  |  | 5 to < 30 ft . | 0 |  |  |
|  |  | 30 to $<50 \mathrm{ft}$. | 0 |  |  |
|  |  | 50 to <100 ft. | 0 |  |  |
|  |  | 100 to 300 ft . | 0 |  |  |
|  |  | > 300 ft . | 0 |  |  |
| ${ }^{T 6}$ | Internal Gradient (GradientT) | Within the AA , the gradient from the upland boundary (or part closest to it) and the lowest point in the A A is: |  | Estimate as the elevation difference between the inlet and outlet (if any) divided by the distance between them, or the difference between the highest and lowest points in the wetland divided by the distance between them. <br> [OE] |  |
|  |  | <2\% (internal flow is absent or barely detectable; basically flat). | 0 |  |  |
|  |  | 2 to $<5 \%$. | 0 |  |  |
|  |  | 5 to 10\%. | 0 |  |  |
|  |  | >10\%. | 0 |  |  |
| ${ }^{77}$ | Outflow Duration (OutDuraT) | The most durable surface water connection (outlet channel, ditch, tidegate, pipe, overbank water exchange) between the AA and marine waters, which allows fish passage, is: | W | A larger difference in elevation between the wetland-upland boundary and the bottom of the wetland outlet (if any) indicates shorter outflow duration. <br> Do not rely only on topographic maps or NWI maps to show this; inspect while in field if possible, and ask landowner. The durations given are only approximate and are for a "normal" year. <br> The connection need not occur during the growing season. <br> [FA, AM, OE] | NoTconnec |
|  |  | Regular (nearly all of the daily high tides, $>9$ monthsslyear). | 0 |  |  |
|  |  | Seasonal (14 days to 9 months/year, not necessarily consecutive, at least monthly). | 0 |  |  |
|  |  | Temporary (mainly during "king tide", "spring tide", or peak discharge flow in an associated river; <14 days per year, not necessarily consecutive). | 0 |  |  |
|  |  | No tidal connection allows fish passage between marine waters and the AA. | 0 |  |  |
| T8 | Outflow Confinement (ConstricT) | In the places where tidal water exits the AA after an average daily high tide, the tidal water is: | W | Impeded means causing a delay or reduction in water velocity or volume. <br> [OE,STR] |  |
|  |  | Impeded partially by a pipe, culvert, narrowly breached dike, berm, beaver dam, or other obstruction (other than natural topography). | 0 |  |  |
|  |  | Not impeded by anything other than (possibly) natural topography. | 0 |  |  |
|  |  | Exported more quickly than usual due to ditches or pipes within the AA or connected to its outlet. | 0 |  |  |
| ${ }^{\text {T9 }}$ | Blind Channels - total length and branching (BlindChT) | Within the intertidal part of the AA , the approximate density of tidal channels that remain wetted during low tide on most days of the year (i.e., MLLW) is: |  | MLLW - mean lower low water <br> [FA, WBF, INV, PD, OE] |  |
|  |  | <100 linear ft per acre, or none, or all have been artificially strightened. | 0 |  |  |
|  |  | 100-1000 linear ft per acre, and most tidal channels are unbranched. | 0 |  |  |
|  |  | 100-1000 linear ft per acre, and most tidal channels are branched. | 0 |  |  |
|  |  | -1000 linear ft per acre and most tidal channels are unbranched. | 0 |  |  |
|  |  | >1000 linear ft per acre and most tidal channels are branched. | 0 |  |  |
| T10 | Tidal-Nontidal Hydro-connectivity (TnonT) | This tidal wetland is : Select first one that applies. |  | Palustrine does not include a river or lake. <br> [FA, AM, WBF, INV, SBM, OE] |  |
|  |  | Adjacent to a nontidal palustrine wetland that contains surface water at least seasonally. Anadromous fish can access both wetlands during spring. Mostly not separated by a dike or other barrier. | 0 |  |  |
|  |  | Adjacent to a nontidal palustrine wetland that contains surface water at least seasonally. Anadromous fish can access both wetlands during spring. Mostly separated by a dike, road, or other partial barrier. | 0 |  |  |
|  |  | Adjacent to a nontidal palustrine wetland that contains surface water at least seasonally. Anadromous fish cannot access both wetlands during spring. | 0 |  |  |
|  |  | Not adjacent to a nontidal palustrine wetland that contains surface water. Has a freshwater tributary that allows fish passage during the springtime to a nontidal wetland $\leq 1$ mile upstream. | 0 |  |  |
|  |  | Not adjacent to a nontidal palustrine wetland that contains surface water. Has a freshwater tributary that allows fish passage during the springtime to a nontidal wetland $>1$ mile upstream. | 0 |  |  |
|  |  | Not adjacent to a nontidal palustrine wetland that contains surface water. Lacks a freshwater tributary that provides fish access to an upstream wetland that contains surface water at least seasonally. | 0 |  |  |




| T25 | Dritwood (DifitwoodT) | The extent of driftwood on the land surface is: |  | [INV, SBM] |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | None or little. | 0 |  |  |  |
|  |  | Intermediate ( $\sim 1$ piecel/200 ft. of shoreline, or $>1,000$ square feet). | 0 |  |  |  |
|  |  | High (>1 piece/100 ft. of shoreline, or $>1,000$ square feet). | 0 |  |  |  |
| T26 | Large Woody Debris (LwdT) | Within the part of the AA and its internal channels that remain underwater during daily low tide, the extent of fish cover provided at that time by partly submerged vegetation, inchannel pools, incised banks, and pieces of wood (thicker than 6 inches and longer than 4 feet, or smaller pieces in dense accumulations) is: |  | [ INV, FA] |  |  |
|  |  | None or few. | 0 |  |  |  |
|  |  | Intermediate. | 0 |  |  |  |
|  |  | Many (>1 piece per 5 acres or per 10 channel widths). | 0 |  |  |  |
| NOTE for the next four questions: If the AA lacks an upland edge, evaluate based on the AA's entire perimeter, and moving outward into whatever areas are adjacent. In many situations, these questions are best answered by measuring from aerial images and/or topographic maps. |  |  |  |  |  |  |
| T27 | Upland Perennial Cover <br> \% of AA's Edge <br> (PerimPctPerT) | The percentage of the AA's edge (perimeter) that is comprised of a band of upland perennial cover wider than 10 ft and taller than 6 inches during most of the growing season is: |  | Perennial cover is vegetation that includes wooded areas, native prairies, sagebrush, vegetated wetlands, as well as relatively unmanaged commercial lands in which the ground is disturbed less frequently than annually such as perennial ryegrass fields, hayfields, lightly grazed pastures, timber harvest areas, and rangeland. <br> It does not include water, row crops (vegetable, orchards, Christmas tree farms), residential areas, golf courses, recreational fields, pavement, bare soil, rock, bare sand, or gravel or dirt roads. <br> [FA, AM, PD, SBM, STR] |  |  |
|  |  | <5\%. | 0 |  |  |  |
|  |  | 5 to <25\%. | 0 |  |  |  |
|  |  | 25 to <50\%. | 0 |  |  |  |
|  |  | 50 to < $75 \%$. | 0 |  |  |  |
|  |  | 75 to 95\%. | 0 |  |  |  |
|  |  | -95\%. | 0 |  |  |  |
| T28 | $\begin{array}{\|l\|} \hline \text { Upland Perennial Cover- } \\ \text { Width (Buffer) } \\ \text { (BuffWidthT) } \end{array}$ | Along the greatest portion of the AA's upland edge, the width (not necessarily the maximum width) of perennial cover taller than 6 inches during most of the growing season and extending upslope from the AA until mostly shorter or non-perennial cover is |  | [FA, AM, PD, SBM, STR] |  |  |
|  |  | < 5 ft , or none. | 0 |  |  |  |
|  |  | 5 to <30 ft. | 0 |  |  |  |
|  |  | 30 to $<50 \mathrm{ft}$. | 0 |  |  |  |
|  |  | 50 to <100 ft. | 0 |  |  |  |
|  |  | 100 to 300 ft . IF \#T27 also was answered $>95 \%$, enter 1 and SKIP to T30. | 0 |  |  |  |
|  |  | $>300 \mathrm{ft}$. IF \# T 27 also was answered $>99 \%$, enter 1 and SKIP to T30. | 0 |  |  |  |
| T29 | Type of Non-PerennialCover in Buffer(ImpervBuff) | Within 300 ft. upslope of the AA's upland edge, the area that is NOT perennial cover is mostly: Select only ONE. |  | [FA] |  |  |
|  |  | Impervious surface ( e.g., paved road, parking lot, building, exposed rock). | 0 |  |  |  |
|  |  | Bare pervious surface (e.g., recent clearcut, landslide, unpaved road, dike, dunes). | 0 |  |  |  |
|  |  | Artificially landscaped or heavily grazed areas, lawn, annual crops. | 0 |  |  |  |
|  |  | Other type of non-perennial cover. | 0 |  |  |  |
| T30 | $\begin{aligned} & \text { Slope from Disturbed } \\ & \text { Lands (SlopeBuffT) } \end{aligned}$ | The percent slope of the land between the AA and the most extensive disturbed upslope area (i.e., unvegetated or non-perennial cover) is mostly: |  | [SRv, PRv, NRv, SEN] |  |  |
|  |  | <1\% (llat -- almost no noticeable slope). | 0 |  |  |  |
|  |  | 2-6\%. | 0 |  |  |  |
|  |  | 7-10\%. | 0 |  |  |  |
|  |  | 11-30\%. | 0 |  |  |  |
|  |  | >30\%. | 0 |  |  |  |



| T37 | Fight Hazards | the AA or within 300 ft, there is an unsheltered fence, powerine, or public road with traffic at least hourly that is located: |  | Unsheltered fence means open to flying waterfowl on both sides, i.e., not entirely within an area of tall dense vegetation. <br> [WBF] |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Within $15 \mathrm{ft} \mathrm{of} \mathrm{the} \mathrm{AA's} \mathrm{low} \mathrm{marsh}$. | 0 |  |  |  |
|  |  | Within 15 ft of the AA's sigh marsh. | 0 |  |  |  |
|  |  | Neither. | 0 |  |  |  |
| T38 | Non-consumptive Uses Actual or Potential (RecPotenT) | Select ALL statements that are true of this AA as it currently exists: |  | The question assumes access is allowed. [PUv] |  |  |
|  |  | Walking is physically possible in $\mathbf{2}$ \% of the AA during most of year (e.g., free of deep water and dense shrub thickets). | 0 |  |  |  |
|  |  | All or part of the AA (or an area within sight of the AA and within 30 m ) would be physically accessible to people in wheelchairs (e.g., paved and flat). | 0 |  |  |  |
|  |  | Maintained roads, parking areas, or foot-trails are within $30 \mathrm{ft} \mathrm{of} \mathrm{the} \mathrm{AA} ,\mathrm{or} \mathrm{the} \mathrm{AA} \mathrm{can} \mathrm{be} \mathrm{accessed} \mathrm{most} \mathrm{of} \mathrm{the} \mathrm{year} \mathrm{by} \mathrm{boat}$. | 0 |  |  |  |
|  |  | Within or near the AA, there is an interpretive center, trails with interpretive signs or brochures, and/or regular guided interpretive tours. | 0 |  |  |  |
| T39 | Core Area 1 (VisitNoT) | The percentage of the AA almost never visited by humans during an average growing season probably comprises: [ Note: Only include the part actually walked or driven (not simply viewed from) with a vehicle or boat. If more than half the wetland is visible from areas within 100 ft of the $A A$, include visits by people to those areas but only count the part actually walked or driven (not simply viewed from).] |  | Judge this based on proximity to population centers, roads, trails, accessibility of the AA to the public, wetland size, usual water depth, and physical evidence of human visitation. Exclude visits that are not likely to continue and/or that are not an annual occurrence (e.g., by construction or monitoring crews). <br> [WBF, PD,PUv] |  |  |
|  |  | $55 \%$ and no inhabited building is within 300 ft of the AA . | 0 |  |  |  |
|  |  | 25\% and inhabited building is within 300 ft of the AA . | 0 |  |  |  |
|  |  | 5 to < $50 \%$ and no inhabited building is within 300 ftof the AA. | 0 |  |  |  |
|  |  | 5 to $<50 \%$ and inhabited building is within 300 ft of the AA . | 0 |  |  |  |
|  |  | 50 to $95 \%$ with or without inhabited building nearby. | 0 |  |  |  |
|  |  | -95\% of the AA with or without inhabited building nearby. | 0 |  |  |  |
| T40 | Core Area 2 (VisitOftenT) | The part of the AA visited by humans almost daily for several weeks during an average growing season probably comprises: [The Note in the preceding question applies here as well]. |  | $\begin{aligned} & \text { See note above. } \\ & {[\text { [WBF, PD,Puv] }} \end{aligned}$ |  |  |
|  |  | <5\%. | 0 |  |  |  |
|  |  | 5 to < $50 \%$. | 0 |  |  |  |
|  |  | 50 to 95\%. | 0 |  |  |  |
|  |  | 295\% of the AA. | 0 |  |  |  |
| T41 | Consumptive Uses(Provisioning Services)(UsesT) | Recent evidence was found within the AA of the following potentially-sustainable consumptive uses. Select ALL that apply. |  | Evidence of these consumptive uses may consist of direct observation, or presence of physical evidence (e.g., recently cut stumps, fishing lures, shell cases), or might be obtained from communication with the land owner or manager. [Puv] |  |  |
|  |  | Commercial or traditional-use harvesting of native plants, their fruits, or mushrooms. | 0 |  |  |  |
|  |  | Waterfowl hunting of furbearee trapping. | 0 |  |  |  |
|  |  | Fishing. | 0 |  |  |  |
|  |  | None of the above. | 0 |  |  |  |
| ${ }^{T 42}$ | Ownership (Ownershipt) | Most of the AA is: |  | An initial indication of ownership can be found in the ORWAP Map Viewer's Ownership layer (expand Land Classification). However, it is advisable to ask local sources or use local maps with higher precision. [PUv] |  |  |
|  |  | Publicly owned (municipal, county, state, federal). | 0 |  |  |  |
|  |  | Non-profit conservation organization that allows public access to this AA. | 0 |  |  |  |
|  |  | Other private ownership, including tribal. Enter 1, if true and SKIP to T44. | 0 |  | PrivateOwnT |  |
| T43 | Special Protected Area Designation (DesigT) | The AA is part of an area designated as a Special Protected Area according to the USGS Protected Areas Database of the U.S. Enter 1, if true. | 0 | See the ORWAP Map Viewer Report under the Location Information section for "In Special Protected Area?" [PUv] |  |  |
| T44 | Conservation Investment (ConsInvestT) | The AA is on private lands and is not a mitigation wetland, but public funds have been spent to preserve, create, restore, or enhance functions of the wetland. Enter 1 , if true. (If unknown, leave 0) | 0 | Locations of some restoration wetlands can be found in the ORWAP Map Viewer under the Restoration heading. Another potential source is the Conservation Registry: https://oregonexplorer.info/content/conservation-registry?topic\&ptopic. [PUv] |  |  |
| T45 | $\begin{aligned} & \begin{array}{l} \text { Compensation Wetland } \\ \text { (MitWetT) } \end{array} \end{aligned}$ | The AA is all or part of a compensation site used explicitly to offset impacts elsewhere. Enter 1, if true. (If unknown, leave 0) | 0 | Answer to the best of your knowledge. Sources for information include the property owner, DSL, and/or the ACOE. [PUv] | MiSSiteT |  |



