# PUGET SOUND ECOSYSTEM RECOVERY TARGETS

The Puget Sound Partnership adopted the following Puget Sound ecosystem recovery targets, which describe the desired future conditions for human health and quality of life, species and food webs, habitats, water quantity, and water quality. These targets are policy statements that reflect the region's commitments to and expectations for recovery, or a trajectory toward recovery, by 2020.

Each target is associated with a Puget Sound Vital Sign. The Vital Signs are overarching, science-informed measures adopted by the Puget Sound Partnership's Leadership Council to gauge the health of Puget Sound. To learn more about the Vital Signs and the status of the targets, please visit www.psp.wa.gov/vitalsigns.

| | VITAL SIGNS | ECOSYSTEM RECOVERY TARGETS |
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| HEALTHY HUMAN POPULATION | ONSITE SEWAGE SYSTEMS | • By 2020, all onsite sewage systems in marine recovery areas and other areas with equivalent enhanced operation and maintenance programs are inventoried, 95 percent are current with inspections, and all failed systems are fixed<br>• Designations of marine recovery areas or designation of other areas with equivalent enhanced operation and maintenance are expanded to 90 percent of marine shorelines not primarily served by sewers. |
| | SHELLFISH BEDS | • A net increase from 2007 to 2020 of 10,800 harvestable shellfish acres, which includes 7,000 acres where harvest is currently prohibited. |
| | OUTDOOR ACTIVITY | • By 2020, all monitored Puget Sound swimming beaches meet enterococcus standard. |
| | LOCAL FOODS | • No target |
| | AIR QUALITY | • No target |
| | DRINKING WATER | • No target |
| HUMAN QUALITY OF LIFE | SOUND STEWARDSHIP | • No target |
| | ECONOMIC VITALITY | • No target |
| | GOOD GOVERNANCE | • No target |
| | SENSE OF PLACE | • No target |
| | CULTURAL WELLBEING | • No target |
| SPECIES AND FOOD WEB | CHINOOK SALMON | • By 2020, we stop the overall decline and start seeing improvements in wild Chinook salmon abundance in two to four populations in each biogeographic region. |
| | ORCAS | • By 2020, achieve an end of year census of southern resident killer whales of 95 individuals, which would represent a 1 percent annual average growth rate from 2010 to 2020. |
| | PACIFIC HERRING | • By 2020, achieve increased spawning biomass for each genetic grouping to a minimum of:<br>» 880 tons for Squaxin Pass stock<br>» 13,500 tons for all other stocks combined |
| | BIRDS | • No target |
| PROTECT AND RESTORE HABITAT | SHORELINE ARMORING | • From 2011 to 2020, the total amount of armoring removed is greater than the total amount of new armoring in Puget Sound (total miles removed is greater than total miles added); feeder bluffs receive strategic attention for removal of existing armoring and avoidance of new armoring; and soft shore techniques are used for all new and replacement armoring unless it is demonstrably infeasible. |
| | EELGRASS | • Eelgrass extent in 2020 is 120 percent of area measured in the 2000–2008 baseline period |

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| PROTECT AND RESTORE HABITAT | LAND DEVELOPMENT AND COVER | • By 2020, average annual loss of forested land cover to developed land-cover in non-federal lands does not exceed 1,000 acres per year, and 268 miles of riparian vegetation are restored or restoration projects are underway.<br>• By 2020, the proportion of basin-wide growth occurring within Urban Growth Areas is at least 86.5 percent (equivalent to all counties exceeding goal by 3 percent), and all counties show an increase over their 2000–2010 percentage.<br>• Basin-wide, by 2020, loss of vegetation cover on indicator land base over a 5-year period does not exceed 0.15 percent of the 2011 baseline land area. |
| | FLOODPLAINS | • By 2020, 15 percent of degraded floodplain areas are restored or floodplain projects to achieve that outcome are underway across Puget Sound and there is no additional loss of floodplain function in any Puget Sound watershed relative to a 2011 baseline. |
| | ESTUARIES | • By 2020, all Chinook salmon natal river deltas meet 10-year salmon recovery goals (or 10 percent of restoration need as proxy for river deltas lacking quantitative acreage goals in salmon recovery plans) and 7,380 quality acres are restored basin-wide, which is 20 percent of restoration need. |
| WATER QUANTITY | SUMMER STREAM FLOWS | • By 2020, meet the following river-specific targets:<br>» Maintain stable or increasing flows in highly regulated rivers: Nisqually, Cedar, Skokomish, Skagit, Green.<br>» Monitor low flow in the Elwha River after dam removal.<br>» Maintain stable flows in unregulated rivers that currently are stable: Puyallup, Dungeness, Nooksack.<br>» Restore low flows to bring the Snohomish River from a weakly decreasing trend to no trend.<br>» Restore low flows to bring the Deschutes River, North Fork Stillaguamish River, and Issaquah Creek from a strongly decreasing trend to a weakly decreasing trend. |
| WATER QUALITY | MARINE WATER QUALITY | • By 2020, human-related contributions of nitrogen do not result in more than 0.2 mg/L reductions in dissolved oxygen levels anywhere in Puget Sound. |
| | FRESHWATER QUALITY | • By 2020, at least 50 percent of all monitoring stations with suitable data have Freshwater Water Quality Index scores of 80 or higher.<br>• By 2020, achieve a decrease in the number of impaired waters (303(d) list) in Puget Sound freshwaters.<br>• By 2020, 100 percent of Puget Sound lowland stream drainage areas monitored with baseline B-IBI scores of 42-46 or better retain these "excellent" scores and mean B-IBI scores of 30 Puget Sound lowland drainage areas improve from "fair" to "good." |
| | MARINE SEDIMENT QUALITY | • By 2020, all Puget Sound regions and bays achieve the following:<br>» Chemistry measures reflect "minimum exposure" (i.e., the Sediment Chemistry Index is >93.3).<br>» Sediment Quality Triad Index (SQTI) scores reflect "unimpacted" conditions (i.e., SQTI values >81).<br>» No measurements exceed the Sediment Quality Standards chemical criteria set in the Washington State sediment management standards. |
| | TOXICS IN FISH | • By 2020, toxics in fish are below threshold levels. Target is achieved if each of the following conditions is observed in monitoring results from 2019 or 2020:<br>» Bioaccumulative toxics – 95 percent of samples meet the following thresholds:<br>° Concentrations of PCBs and PBDEs in Puget Sound herring, English sole, salmon, and steelhead are below adverse effects thresholds (e.g., 2,400 ng PCB/g lipid and 1,400 ng PBDE/g lipid).<br>° Concentrations of PCBs and other biocumulative toxics in Puget Sound herring, English sole, salmon, and steelhead are below human-health screening levels (e.g., Department of Health screening levels for recreational or subsistence consumption rates, currently 33 ng PCB/g and 10 ng PCB/g fish tissue, respectively for a non-cancer endpoint).<br>» PAHs and endocrine disrupting compounds – all samples meet the following thresholds:<br>° English sole in Puget Sound exhibit no PAH-related liver disease.<br>° English sole in Puget Sound exhibit no toxics-related reproductive impairment.<br>° PAHs in herring are below an effects threshold. |

**LEARN MORE ABOUT WHAT IS BEING DONE TO RESTORE AND PROTECT PUGET SOUND:** www.psp.wa.gov

PUGETSOUND PARTNERSHIP

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*UPDATED 8/3/16*