



BIOLOGICAL ASSESSMENT REFERENCE

WASHINGTON STATE FERRIES CAPITAL, REPAIR, AND MAINTENANCE PROJECTS

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List of Acronyms and Abbreviations

ACZA	ammoniacal copper zinc arsenate
ADA	Americans with Disabilities Act
AWPA	American Wood Preservers' Association
BA	Biological Assessment
BMP	best management practice
BO	Biological Opinion
cfs	cubic feet per second
Corps	U.S. Army Corps of Engineers
CDF	Cumulative Density Function
CFR	Code of Federal Regulations
CSL	Cleanup Screening Level
CSO	combined sewer outfall
CWT	coded wire tag
dB	decibel
dba	weighted in-air noise rating for human receptors, decibels
dB _{PEAK}	peak pressure, instantaneous maximum or minimum overpressure observed during each impact pulse, decibels
dB _{RMS}	RMS (root mean square), square root of energy divided by impulse duration, decibels
DBT	dibutyltin
DIDSON	Dual-frequency Identification Sonar
DO	dissolved oxygen
DPS	distinct population segment
Ecology	Washington State Department of Ecology
EFH	Essential Fish Habitat
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
ESU	Evolutionary Significant Unit
FHWA	Federal Highway Administration
FMO	foraging, migration, and overwintering
FTA	Federal Transit Administration
HPA	Hydraulic Project Approval
HPAH	high-molecular-weight polycyclic aromatic hydrocarbon

List of Acronyms and Abbreviations

H:V	horizontal to vertical
kHz	kilohertz
LC ₅₀	96-hour median lethal concentration
LID	Low Impact Development
LPAH	low-molecular-weight polycyclic aromatic hydrocarbon
LTAA	Likely to Adversely Affect
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
MHHW	mean higher high water
MLLW	mean lower low water
MM	minimization measure
mm	millimeter
MMPA	Marine Mammal Protection Act
mph	miles per hour
MRC	Marine Resource Consultants
NLTAA	Not Likely to Adversely Affect
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NTU	nephelometric turbidity unit
OHW	Ordinary High Water
PAH	polycyclic aromatic hydrocarbon
PAR	photosynthetically active radiation
PBB	polybrominated diphenyl biphenyl
PBDE	polybrominated diphenyl ether
PCB	polychlorinated biphenol
PCE	Primary Constituent Element
PCP	polychlorinated paraffins
PCN	polychlorinated naphthalenes
PCT	polychlorinated terphenyl
PEM	palustrine emergent
PFO	perfluro-octane sulfonate
PHS	Priority Habitats and Species

List of Acronyms and Abbreviations

PNNL	Pacific Northwest National Laboratory
POF	palustrine forested
POW	palustrine open water
ppb	parts per billion
PSAMP	Puget Sound Ambient Monitoring Program
PSDDA	Puget Sound Dredged Disposal Analysis
PSLM	Practical Spreading Loss Model
PSS	palustrine scrub shrub
PSU	Primary Sampling Units
RCW	Regional Code of Washington
RMS	Root Mean Square
SEL	Sound Exposure Level
SMS	Sediment Management Standards
SPCC	Spill Prevention, Control, and Countermeasures
SPL	sound pressure level
SQS	Sediment Quality Standards
SR	State Route
SSDP	Shoreline Substantial Development Permit
TBT	tributyltin
TNAP	Temporary Noise Attenuation Pile
TSS	total suspended solids
µg/L	micrograms per liter
µg/kg	micrograms per kilogram
µPa	micropascal
UHMW	ultra high molecular weight
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
WAC	Washington Administrative Code
WDFW	Washington Department of Fish and Wildlife
WQC	Water Quality Criteria
WSDOT	Washington State Department of Transportation
WSF	Washington State Ferries