

LIST OF ACRONYMS AND UNITS

Acronym/Unit	Definition
%	percent
µg/kg bw/d	micrograms per kilogram of body weight per day
µg/L	microgram per litre
µg/m ³	micrograms per cubic metre
µS	microsiemens
µS/cm	micro siemens per centimetre
‰	salinity of water expressed as parts per thousand and ranges from 0 for fresh water to about 35 for oceanic water
1E+0	scientific notation – neutral power indicates a number greater than one and less than ten and in this case 1.0
1E-01	scientific notation – negative power indicates a number less than 1.0 and in this case 0.1
2,3,7,8-TCDD	2,3,7,8 tetrachlorodibenzo-para-dioxin
2,3,7,8-TCDF	2,3,7,8 tetrachlorodibenzo-para-furan
95 th UCLM	95 th upper confidence limit of the mean
AADT	average annual daily traffic
AADTT	average annual daily truck traffic
AAQC	ambient air quality criteria
AAQM	ambient air quality monitoring
AC CDC	Atlantic Canada Conservation Data Centre (see below for AC CDC classifications)
ADCP	acoustic doppler current profiler
ADD	average daily dose
ADT	average daily traffic
AF	absorption factor
AFRL	archaeological field research licence
AHSC	Atlantic Health Sciences Corporation
am	morning
AO	aesthetic objectives
API	American Petroleum Institute

Acronym/Unit	Definition
As(III)	trivalent arsenic
As(V)	hexavalent arsenic
asl	above sea level
ATSDR	Agency for Toxic Substances and Disease Registry
ATV	all terrain vehicle
B[a]P	benzo[a]pyrene
BAF	bio-accumulation factor
bbl	barrel (oil US, equal to 159 L)
bbl/d	barrels per day
BCF	bioconcentration factor
BCMOE	British Columbia Ministry of Environment
BIO	Bedford Institute of Oceanography
BM	body mass
BOP	battery observation post
BSAF	biota-sediment accumulation factor
BTEX	benzene, toluene, ethylbenzene and xylenes (meta-xylene, ortho-xylene, para-xylene)
BTU	British thermal unit (equal to 1,055 Joules)
BW	body weight
C\$	Canadian dollars
CAC	criteria air contaminants
CADNAA	Computer Aided Noise Abatement model
CAEAL	Canadian Association of Environmental Analytical Laboratories
CalEPA	California Environmental Protection Agency
CAS	chemical abstracts service
CATEF	California air toxics emission factors
CCME	Canadian Council of Ministers of the Environment
CCME CWS	Canadian Council of Ministers of the Environment – Canada Wide Standards
CCR	continuous catalytic reformer
cd	candela
cd/m ²	candela per square metre

Acronym/Unit	Definition
CDU	crude distillation unit
CEAA	<i>Canadian Environmental Assessment Act</i>
CEM	continuous emissions monitor
CEPA	<i>Canadian Environmental Protection Act, 1999</i>
CH ₄	methane
CHC	community health centre
CHS	Canadian Hydrographic Services
CIE	Commission Internationale de l'Éclairage (International Commission on Illumination)
CIOC-NB	Community Information Online Consortium-New Brunswick
cm	centimetre
CMA	census metropolitan area
CMHC	Canada Mortgage and Housing Corporation
CN	Canadian National Railway
CNS	central nervous system
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ eq	carbon dioxide equivalent
cogen	cogeneration
Col/MV	collisions per million vehicles
Col/MVK	collisions per million vehicle-kilometres
COPC	chemicals of potential concern
COSEWIC	Committee on the Status of Endangered Species in Canada
CPPI	Canadian Petroleum Products Institute
Cr	chromium
CR	concentration ratio
CSF	chemical-specific cancer slope factor
CSM	conceptual site model
CSQG	Canadian Sediment Quality Guidelines for the Protection of Aquatic Life (2002)
CWF	Canadian Wildlife Federation
CWS	Canadian Wildlife Service of Environment Canada

Acronym/Unit	Definition
CWS PHC	Canada wide standard for petroleum hydrocarbons
d	day
DA	dissemination area
dB _A	decibel, A-weighting
DEM	digital elevation model
DFO	Department of Fisheries and Oceans Canada
DL	detection limit
DMA	dimethyl arsenic
DNA	deoxyribonucleic acid
DO	dissolved oxygen
DWA	deer wintering area
dwt	deadweight tonne
<i>e.g.,</i>	for example
EA	environmental assessment
EC	environment Canada
Eco-SSL	ecological soil screening level
ECRC	Eastern Canada Response Corporation
EET	emission estimation technique
EHQ	ecological hazard quotient
EIA	environmental impact assessment
EPC	exposure point concentration
EPH	extractable petroleum hydrocarbon
EPM	equivalents per million
EQL	estimated quantification limit
ERA	ecological risk assessment
ERP	emergency response plan
ESA	environmentally sensitive area
ET	evapotranspiration
F1 (C ₆ -C ₁₀)	CWS Petroleum hydrocarbon fraction 1
F2 (C ₁₀ -C ₁₆)	CWS Petroleum hydrocarbon fraction 2

Acronym/Unit	Definition
F3 (C ₁₆ -C ₃₂)	CWS Petroleum hydrocarbon fraction 3
F4 (C ₃₂ -C ₅₀)	CWS Petroleum hydrocarbon fraction 4
FCCU	fluid catalytic cracking unit (at the existing Saint John refinery)
FID	flame ionization detector
FIRE	Factor Information Retrieval Data System
FNFA	Fundy North Fishermen's Association
FREON 11	trichlorofluoromethane
f _{site}	the fraction of the total ingestion rate from the site
ft	feet
g	gram
g/km	grams per kilometre
g/m ² /a	grams per square metre per year
gal	US gallons (3.79 L)
Gbbl	billion barrels
GDP	gross domestic product
GHG	greenhouse gases
GIS	geographic information system
GLC	ground-level concentration(s)
GNB	Government of New Brunswick
GPS	global positioning system
Gt	giga-tonnes
GVW	gross vehicle weight
h	hour
h/tug	hours of operation per tugboat
h/visit	hours per visit
H ₂ S	hydrogen sulphide
ha	hectares (10,000 square metres, or 2.47 acres)
HADD	Harmful Alteration, Disruption or Destruction (of fish habitat)
HAZOP	hazards and operability
HCB	hexachlorobenzene

Acronym/Unit	Definition
HCBD	hexachlorobutadiene
HCU	gas oil hydrocracker unit
HD ₅	high dose effect at 5%
HDD	horizontal directional drilling
Hg ⁰	elemental mercury
HHERA	human health and ecological risk assessment
HHRA	human health risk assessment
HHRAP	human health risk assessment protocol
HHV	higher heating value
HOU	heavy oil upgrader
hp	horsepower
HpCDD	heptachlorodibenzo- <i>p</i> -dioxin
hp-h	horsepower-hour
HPS	high pressure sodium
HQ	hazard quotient
HRIA	heritage resource impact assessment
HRSJ	Heritage Resources, Saint John
HSE	Health, Safety and Environment
HTU	hydrotreater unit
HVAC	heating ventilating air conditioning
<i>i.e.</i> ,	that is/in other words
iBoF	Inner Bay of Fundy
ICE	interspecies correlation estimation
ICT	information and communication technologies
IF	intake factor
ILCR	Incremental Lifetime Cancer Risk
IMAC	interim maximum acceptable criteria
IR	ingestion rate
IRIS	Integrated Risk Information System
ISO	International Standards Organization

Acronym/Unit	Definition
ISOM	isomerisation unit
ISQG	CCME Interim Sediment Quality Guideline
I-TEF	international toxicity equivalency factor
ITOPF	International Tanker Owners Pollution Federation Ltd.
Jacques Whitford	Jacques Whitford Stantec Limited
JSL	jurisdictional screening levels (OMOE)
K	degree Kelvin
K_d	water-sediment partition coefficient
kdwt	one thousand deadweight tonnes
kg	kilogram (1,000 grams)
kg H ⁺ eq/ha/a	kilograms of hydrogen ion equivalent per hectare per year
kg/h	kilograms per hour
kg/m ³	kilograms per cubic metre
km	kilometre (1,000 metres)
km/h	kilometres per hour
km ²	square kilometre
K_{ow}	The octanol-water partition coefficient is the ratio of the concentration of a chemical in octanol and in water at equilibrium and at a specified temperature.
kPa	kilopascal
ks	soil loss constant
kW	kilowatt
kWh	kilowatt-hour
L	litre
L/d	litres per day
LAA	local assessment area
LADD	lifetime average daily dose
lb	pound
LC ₅₀	Median lethal concentration of a toxic substance or radiation is the concentration required to kill half the members of a tested population.
LCR	lifetime cancer risk
L _D	night average sound level

Acronym/Unit	Definition
LD ₅₀	Median lethal dose of a toxic substance or radiation is the dose required to kill half the members of a tested population.
LDAR	leak detection and repair program
L _{eq}	equivalent sound level
LFA	lobster fishing area
LFCSA	linear facilities corridor study area
LHTU	light hydrotreater unit
LICO	low-income cut off
LLWLT	lower low water large tide
LMD	local modelling domain
L _N	day average sound level
LNG	liquefied natural gas
LOAEL	lowest observed adverse effect level
LOPA	layers of protection analysis
LOS	level of service
L _p	sound pressure level
LPG	liquid petroleum gas
LRII	crude oil marine vessel transportation (carries 150 kdwT)
LRT	long-range transport
LSA	local study area
LSF	linear stone feature
lumen/m ²	lumen per square metre
lux	1 lumen per square metre
L _w	sound power level
m	metre
m/s	metres per second
m ³	cubic metre
m ³ /d	cubic metres per day
m ³ /h	cubic metres per hour
m ³ /s	cubic metres per second

Acronym/Unit	Definition
mag/arcsec ²	magnitudes per square arcsecond
Max	maximum
MCTS	Marine Communications and Traffic Services, a division of the Coast Guard
MeHg	methyl mercury
meq/L	milli-equivalents per litre
MFA	mackerel fishing area
mg	milligram
mg/kg	milligrams per kilogram
mg/kg bw/d	milligrams per kilogram of body weight per day
mg/kg-d	milligram per kilogram per day
mg/L	milligram per litre
MHTU	medium hydrotreater unit
min	minimum
MISA	Municipal and Industrial Strategy for Abatement
MMA	monomethyl arsenic
MMBTU	one million British thermal units
MtBE	methyl tert-butyl ether
MW	megawatt
n	number of samples
N ₂ O	nitrous oxide
NAAQO	national ambient air quality objectives
NAFO	Northwest Atlantic Fisheries Organization
NAPS	National Air Pollutant Surveillance
NARWC	North Atlantic Right Whale Consortium
NB	New Brunswick
NB DNR	New Brunswick Department of Natural Resources
NB ESA	New Brunswick <i>Endangered Species Act</i>
NBDOH	New Brunswick Department of Health
NB Power	New Brunswick Power Corporation
NBDNR	New Brunswick Department of Natural Resources

Acronym/Unit	Definition
NBDOT	New Brunswick Department of Transportation
NBEMO	New Brunswick Emergency Measures Organization
NBENV	New Brunswick Department of Environment
NBSR	New Brunswick Southern Railway
ND	non-detect values
NEB	National Energy Board
ng/kg	nanogram per kilogram
NH ₃	ammonia
NO	nitric oxide, also named nitrogen monoxide
NO ₂	nitrogen dioxide
NOAEL	No observed adverse effect level- The highest tested dose of a substance that has been reported to have no adverse health outcomes on laboratory animals.
NO _x	nitrogen oxides (sum of NO and NO ₂)
NPRI	National Pollutant Release Inventory
NSA	noise sensitive area
NTU	nephelometric turbidity units
O ₃	ozone
°C	degree Celsius
OC	organic carbon
OCDD	octachlorodibenzo- <i>p</i> -dioxin
OCDF	octachlorodibenzofuran
OMOE	Ontario Ministry of the Environment
P	precipitation
PAH	polycyclic aromatic hydrocarbons
PAI	potential acid input
PANB	Provincial Archives of New Brunswick
PCB	polychlorinated biphenyl
PCDD	polychlorinated dioxins
PCDD/PCDF	polychlorinated dibenzo- <i>p</i> -dioxins and dibenzofurans
PCDF	polychlorinated furans

Acronym/Unit	Definition
PCP	pentachlorophenol
PDA	project development area
PDO	property damage only
PeCDF	pentachlorodibenzo- <i>p</i> -furan
PEL	probable effects level guidelines
pg	pictograms (equal to 10^{-12} g)
pH	potential hydrogen (a measure of the acidity or alkalinity of a solution)
PHC	petroleum hydrocarbons
pm	evening
PM	total suspended particulate matter
PM ₁₀	particulate matter with aerodynamic diameter of 10 microns or less
PM _{2.5}	particulate matter with aerodynamic diameter of 2.5 microns or less
ppb	parts per billion
ppm	parts per million
PPRTV	provisional peer reviewed toxicity value
ppt	parts per thousand
PQRA	preliminary quantitative risk assessment
QA/QC	quality assurance/quality control
Q _B	groundwater discharge via baseflow to surface water body
Q _s	groundwater discharge via springs
RAA	regional assessment area
RCMP	Royal Canadian Mounted Police
RDL	reportable detection limit
RfC	reference concentration
RFCCU	residue fluid catalytic cracking unit (at the existing Saint John refinery)
RfD	reference dose
RHA	Regional Health Authority
RIVM	The Netherlands National Institute for Public Health and the Environment
RMD	regional modelling domain
RME	reasonable maximum exposure

Acronym/Unit	Definition
ROW	right-of-way
RPC	Research and Productivity Council
RPD	relative percent difference
RRPF	Rothesay Regional Police Force
R _s	surface run-off
RSA	regional study area
s	second
SARA	<i>Species At Risk Act</i>
SBM	single buoy mooring
SCC	source classification codes
scf	standard cubic feet (at 298 K and 101.3 kPa)
SF	slope factor
SFA	scallop fishing area
SJEMO	Saint John Emergency Measures Organization
SJPD	Saint John Police Department
SJRH	Saint John Regional Hospital
SNB	Service New Brunswick
SO ₂	sulphur dioxide
SPA	scallop production areas
SPM	secondary particulate matter
SPMT	self propelled module transporter
SQT	Sediment Quality Triad
SRANK	species rank
SRU	sulphur recovery unit
steradian	SI unit for a solid angle
STP	shovel test pit
SUV	sport utility vehicle
sVOC	semi-volatile organic compounds
SWMM	storm water management model
t	metric tonne (1,000 kg)

Acronym/Unit	Definition
t/a	tonnes per year
TAC	total allowable catch
TC	Transport Canada
TCDF	tetrachlorodibenzo- <i>p</i> -furan
TDI	tolerable daily intake
TDS	total dissolved solids
TEF	toxic equivalency factor
TEQ	toxic equivalent quotient
TGTU	tail gas treatment unit(s)
TOC	total organic carbon
TOR	Terms of Reference
TOV	tow operated vehicle
TPH	total petroleum hydrocarbons
TRI	toxic release inventory
TRS	total reduced sulphur
TRV	toxicity reference value
TSBC	Transportation Safety Board of Canada
TSP	total suspended particulate
TSS	total suspended solids
TWSC	two way stop controlled
UCL	upper confidence limit
UF	uncertainty factor
ULCC	ultra large crude carrier
UP	uptake factor
UR	unit risk factor
US	United States
US EPA	United States Environmental Protection Agency
US EPA IRIS	United States Environmental Protection Agency, Integrated Risk Information System
USgal	US gallon
USgpm	US gallon per minute

Acronym/Unit	Definition
UXO	unexploded ordnance
VDU	vacuum distillation unit
VEC	valued environmental component
VHF-DSC	very high frequency/digital selective calling
VLCC	very large crude carrier
VLM	very large module
VOC	volatile organic compound(s)
VPH	volatile petroleum hydrocarbon
VRU	vapour recovery unit
W	watt
WAWA	wetland and watercourse alteration
WHO	World Health Organization
WSSA	water supply source assessment
WWTP	wastewater treatment plant