

Environmental Restoration and BRAC

Acronyms and Glossary

Environmental Restoration and BRAC Acronyms and Glossary

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ERB Acronym and Glossary – A

	Glossary	Definition
A	data qualifiers - method (analytical) qualifier - A	Flame Atomic Absorption (AA). See Method Qualifier.
A	data qualifiers - organic analysis - A	Indicates that a Tentatively Identified Compound (TIC) is a suspected aldol-condensation product. See Data Qualifiers.
A-106	Office of Management and Budget Circular #A-106	The OMB Circular A-106 module was a software program that helped environmental coordinators plan, program, budget and forecast costs to manage their environmental projects, now superseded by Environmental Program Requirements Module (EPRM).
AA	Atomic Absorption	AA is an acronym for Atomic Absorption, a methodology for the detection of metals. It describes a single element analysis using a single wavelength
AAQS	Ambient Air Quality Standard	sets legal limits on the level of an air pollutant in the outdoor (ambient) air necessary to protect public health. Both the Air Resources Board (ARB) and the U.S. Environmental Protection Agency (USEPA) are authorized to set ambient air quality standards.
ABM	Abrasive Blasting Media	Material used to remove paint, coatings, and/or corrosion from industrial structures.
ACGIH	American Conference of Governmental Industrial Hygienists	A community of professionals that advances worker health and safety through education and the development and dissemination of scientific and technical knowledge.
ACH	Air Changes per Hour	The movement of a volume of air in a given period of time; if a house has one air change per hour, it means that all of the air in the house will be replaced in a one-hour period.
ACHP	Advisory Council on Historic Preservation	An independent Federal agency that promotes the preservation, enhancement, and productive use of our Nation's historic resources.
A-E	Architect-Engineer	Architects provide professional services in the development, design, construction, alteration or repair of building projects. Engineers design, plan and supervise the construction of structures
AF	Soil Adherence Factor to skin, mg/cm ²	Experimentally-derived data for adherence of soil to skin have resulted in measured values ranging from 0.2 to 1.5 mg/cm ² per event.
AFCEE	Air Force Center for Engineering and the Environment	A field operating agency of The Air Force Civil Engineer . Services and products in environmental, architectural and landscape design, planning and construction management services and products.
Ag	Silver	A naturally occurring metal that is acquired as a by-product during retrieval of other metals like copper, lead, zinc and gold. It is used in surgical prostheses, splints, fungicides, coins, photographic materials, electrical products, paints, and batteries. Silver in water can form various salts or adsorb to various inorganic compounds, or humus and other organic debris. The majority of silver is sorbed by manganese dioxide, which is dependent on the pH and redox state of the local environment. Silver

	Glossary	Definition
		in soil can be mobile depending on the pH, redox state, presence or absence of inorganic and organic compounds that affect sorption.
AIRFA	American Indian Religious Freedom Act	established on August 11, 1978, protect and preserve for American Indians their inherent right of freedom to believe, express, and exercise the traditional religions of the American Indian, Eskimo, Aleut, and Native Hawaiians, including but not limited to access to sites, use and possession of sacred objects, and the freedom to worship through ceremonials and traditional rites.
AL	Action Level	1) In the Superfund program, the existence of a contaminant concentration in the environment high enough to warrant action or trigger a response under SARA and the NCP. 2) Regulatory levels recommended by EPA for enforcement by FDA and USDA when pesticide residues occur in food or feed commodities for reasons other than the direct application of the pesticide. As opposed to "tolerances" which are established for residues occurring as a direct result of proper usage, action levels are set for inadvertent residues resulting from previous legal use or accidental contamination. 3) Unless otherwise specified in a NAVOSH standard, one-half the relevant Permissible Exposure Limit (PEL) or Threshold Limit Value (TLV). See Tolerances.
Al	Aluminum	A light ductile metal that is easy to weld. It is a good conductor of heat and electricity. When it is exposed to air, it creates a protective film resistant to corrosion. It is used in alloys with copper, zinc, manganese and magnesium. It is a very versatile metal and so has a wide variety of uses: packaging materials, utensils, auto-bodies, airplanes, building materials, electrical conductors, explosives, fireworks, abrasives, cosmetics, paints, and even food additives. It is a natural component in soil, water, and air. Inhalation of the fine powder can lead to pulmonary fibrosis.
AM	Action Memorandum	For Removal Action to be accomplished at NPL and non-NPL sites. 1) For an Interim Removal Action - specifies what threat is being addressed and how long the action will remain effective; should also state what type of final action may be conducted and how the removal action contributes to the implementation of the final action. 2) For a Final Removal Action -specifies the performance standards or cleanup levels to be reached by the actions.
ANOVA	Analysis of Variance	An analysis of the variation in the outcomes of an experiment to assess the contribution of each variable to the variation.
ANPR	Advanced Notice of Proposed Rulemaking	It describes various approaches that the agencies could pursue to allow or require financial institutions to provide alternative types of privacy notices that would be more readable and useful to consumers. It also seeks comment on whether differences between federal and state laws pose any special issues for developing a short privacy notice.

	Glossary	Definition
ANSI	American National Standards Institute	The American National Standards Institute (ANSI) is a private, non-profit organization (501(c)3) that administers and coordinates the U.S. voluntary standardization and conformity assessment system.
AOC	Area of Concern	A discrete area of contamination or suspected contamination that is in the PA/SI (or RFA) phase and that has not been entered into the DoD RMIS database.
AOU	Accelerated Operable Unit	An action which prevents, controls or responds to a release or threatened release of hazardous substances, pollutants, and contaminants where prompt action is necessary but a response under removal authorities is not appropriate or desirable. The purpose of an AOU is to allow the remedial action for that Operable Unit to proceed prior to completion of the final Record of Decision (ROD) for the total remedial action. AOU's are particularly appropriate where the size and complexity of the total remedial action would seriously delay implementation of independent parts of the action. AOU's will only proceed after complying with applicable procedures in the NCP. It is not intended that AOU's diminish the requirements for, delay the conduct of, or conflict with the total remedial action.
APCD	Air Pollution Control District	County and regional agencies established pursuant to the County Air Pollution Law of 1947 and the Mulford-Carrell Act of 1967 to administer and enforce minimum standards for air quality.
API	American Petroleum Institute	represents America's oil and natural gas industry and insures a strong, viable U.S. oil and natural gas industry capable of meeting the energy needs of our Nation in an efficient and environmentally responsible manner
APR	Air Purifying Respirator	A respirator with an air-purifying filter, cartridge, or canister that removes specific air contaminants by passing ambient air through the air-purifying element.
AQAPS	Automated Quality Assessment Program System	AQAPS is a database where QA findings and observations are documented and stored. AQAPS was developed by Navy Explosive Ordnance Disposal Technology Division, Indian Head, Maryland and is used by QA personnel.
AQD	Air Quality District	The air pollution control agency that is responsible for controlling emissions from stationary sources of air pollution.
AR	Administrative Record	A compilation of information established for all CERCLA sites made available to the public at the start of the Remedial Investigation (RI) for remedial actions, or at the time of Engineering Evaluation/Cost Analysis (EE/CA) for removal actions. Information in the Administrative Record supports the selected remedy for remedial actions and removal actions.
ARAR	Applicable or Relevant and Appropriate Requirement	Requirements, including cleanup standards, standards of control and other substantive environmental protection requirements and criteria, for hazardous substances as specified under Federal and state laws and regulations, that must be met when complying with CERCLA and SARA.

	Glossary	Definition
ARF	Administrative Record File	1) Refers to documents, as they are being established and maintained. Until a response action decision has been selected, there is no complete administrative record for that decision. Thus, to avoid creating the impression that the record is complete at any time prior to the final selection decision, the set of documents is referred to as the ARF rather than the AR. 2) A file that contains all information used in order to make decisions on the selection of a response action under CERCLA. Available for public review and comment.
ARMS	Administrative Records Management System	The Comprehensive Environmental Response Compensation and Liability Act requires the establishment of an Administrative Record for sites being cleaned up in compliance with this law. It is the combination of records and other material that forms the basis for remedy selection and legal review of the CERCLA response action implemented at an installation restoration site.
ARPA	Archaeological Resources Protection Act	An act to protect archaeological resources on public lands and Indian lands, and for other purposes.
ARTT	Alternative Restoration Technology Team	A Naval Facility Engineering Command-chartered workgroup established to promote and implement the use of cost effective, innovative technologies, and methods in the Navy Environmental Restoration program.
AS	Air Sparging	General term for the technology of introducing gases, usually air, beneath the water table to promote site remediation. Air sparging can be divided into two distinct processes: in-well aeration and air injection.
As	Arsenic	A metalloid occurring naturally in the earth's crust and fossil fuels. It can be released into the environment during combustion of fossil fuels containing arsenic. It is used in the production of glass, enamels, ceramics, oil, cloth, linoleum, electrical semiconductors, pigments, fireworks, pesticides, fungicides, veterinary pharmaceuticals, and wood preservatives. Soluble forms of arsenic can be quite mobile, while less soluble forms tend to adsorb to sediments and soils. It is a known human carcinogen, and bioaccumulates to toxic levels.
AS	data qualifiers - method (analytical) qualifier - AS	Semiautomated Spectrophotometric.
AS/SVE	Air Sparging/Soil Vapor Extraction	Vacuum is applied through extraction wells to create a pressure/concentration gradient that induces gas-phase volatiles to be removed from soil through extraction wells.
ASCII	American Standard Code for Information Interchange (Computer Language)	The basis of character sets used in almost all present-day computers. US-ASCII uses only the lower seven bits (character points 0 to 127) to convey some control codes, space, numbers, most basic punctuation, and unaccented letters a-z and A-Z. More modern coded character sets (e.g., Latin-1, Unicode) define extensions to ASCII for values above 127 for conveying special Latin characters (like accented characters, or German

	Glossary	Definition
		ess-tsett), characters from non-Latin writing systems (e.g., Cyrillic, or Han characters), and such desirable glyphs as distinct open- and close-quotation marks. ASCII replaced earlier systems such as EBCDIC and Baudot, which used fewer bytes, but were each broken in their own way.
ASN(I&E)	Assistant Secretary of the Navy (Installation and Environment)	Responsible to the Secretary of the Navy for the formulation of Department-wide policies and procedures, and for overseeing all DoN functions and programs relating to: environmental protection, planning and restoration ashore and afloat, and natural and cultural resources conservation; acquisition, use, and disposal of real property, housing, and other facilities, including all planning; construction, operation, management, maintenance and repair of installations, housing and other facilities; timely completion of closures and realignments of installations under applicable base closure laws; DoN operational and long range basing and infrastructure requirements analysis; safety and occupational health of military and civilian personnel; allocation of related resources and requirements.
AST	Aboveground Storage Tank	Any tank or other container that is above ground, partially buried, bunkered, or in a subterranean vault. This includes floating fuel systems.
ASTM	American Society for Testing and Materials	ASTM International is one of the largest voluntary standards development organizations in the world-a trusted source for technical standards for materials, products, systems, and services. Known for their high technical quality and market relevancy, ASTM International standards have an important role in the information infrastructure that guides design, manufacturing and trade in the global economy.
ATEG	Potassium/Sodium Hydroxide Tetraethylene Glycol	ATEG is a treatment process to decompose the PCB molecule and other chlorinated organics.
ATSDR	Agency for Toxic Substances and Disease Registry	ATSDR is the principal federal public health agency involved with hazardous waste issues. The agency helps prevent or reduce the harmful effects of exposure to hazardous substances on human health. ATSDR, an agency of the U.S. Department of Health and Human Services, was created by the Superfund Law in 1980.
ATTIC	Alternative Treatment Technology Information Center	A comprehensive information retrieval system containing data on alternative treatment technologies for hazardous waste.
AV	data qualifiers - method (analytical) qualifier - AV	Automated Cold Vapor AA.
AWQS	Ambient Water Quality Standards	Specified concentrations and durations of air pollutants reflecting relationship between the intensity and composition of water pollution to undesirable effects established by a state board and/or federal government.

ERB Glossary – A

	Glossary	Definition
	abandoned well	A well whose use has been permanently discontinued or which is in a state of such disrepair that it cannot be used for its intended purpose.
	abatement	Reducing the degree or intensity of, or eliminating, pollution.
	abiotic	Not relating to living things, not alive.
	absorbance	A measure of the decrease in incident light passing through a sample into a detector. It is defined mathematically as: $A = \log \frac{I(\text{solvent})}{I(\text{solution})}$ where I = radiation intensity
	absorbed dose	The amount of a chemical that enters the body of an exposed organism. Equal to intake multiplied by an absorption factor.
	absorption	1) The process by which one substance is taken into the body of another substance. 2) The penetration of molecules or ions of one or more substances (gas, liquid or solid) into the interior of another substance. For example, in hydrated bentonite (a type of clay), the water that is held between the mica-like layers (held within the clay) is the result of absorption.
	accident site	The location of an unexpected occurrence, failure or loss, either at a plant or along a transportation route, resulting in a release of hazardous materials.
	accuracy	The degree of agreement between a measured value and a true, expected value.
	acetone	A colorless, volatile liquid with a sweet odor. It is considered the least toxic solvent in industry. It can occur naturally. It is used in the production of lubricating oils, chloroform, pharmaceuticals, pesticides, paints, varnishes and lacquers. If present in water, it is more likely to volatilize or biodegrade before bioaccumulating or adsorbing to sediments. Acetone will also readily volatilize and biodegrade in soil. It is also a common laboratory contaminant, so its presence in a sample does not always indicate its presence in the environment. Synonyms - Dimethylketone and 2-propanone.
	acid	An inorganic or organic compound that 1) reacts with metals to yield hydrogen; 2) reacts with a base to form a salt; 3) dissociates in water to yield hydrogen ions; 4) has a pH of less than 7.0; 5) neutralizes bases or alkalis; and 6) turns litmus paper red. All acids contain hydrogen. They are corrosive to tissue and should be handled with care.
	acid neutralizing capacity	A measure of the ability of water or soil to resist changes in pH.
	acidic	The condition of water or soil that contains a sufficient amount of acid substances to lower the pH below 7.0
	activated carbon	A highly adsorbent form of carbon used to remove odors and toxic substances from liquid or gaseous emissions. In waste treatment it is used to remove

	Glossary	Definition
		dissolved organic matter from waste water. It is also used in motor vehicle evaporative control systems.
	acute exposure	A single exposure to a toxic substance which results in severe biological harm or death. Acute exposures are usually characterized as lasting no longer than a day, as compared to longer, continuing exposure over a period of time.
	acute toxicity	The ability of a substance to cause poisonous effects resulting in severe biological harm or death soon after a single exposure or dose, usually within 24 hours. Also, any severe poisonous effect resulting from a single short-term exposure to a toxic substance. See Chronic Toxicity, Toxicity.
	adaptation	Changes in an organism's structure or habits that help it adjust to its surroundings.
	adjacent property	Either those properties contiguous to the boundaries of the property being surveyed or other nearby properties.
	Administrative Order	A legal document signed by EPA directing an individual, business, or other entity to take corrective action or refrain from an activity. It describes the violations and actions to be taken, and can be enforced in court. Such orders may be issued, for example, as a result of an administrative complaint whereby the respondent is ordered to pay a penalty for violations of a statute.
	Administrative Order On Consent	A legal agreement signed by EPA and an individual, business, or other entity through which the violator agrees to pay for correction of violations, take the required corrective or cleanup actions, or refrain from an activity. It describes the actions to be taken, may be subject to a comment period, applies to civil actions, and can be enforced in court.
	adsorption	The process by which a gas, vapor, dissolved material or very small particle adheres to the surface of a solid due to chemical or physical forces; the attraction and adhesion of ions from an aqueous solution to the solid soil or rock surfaces with which they are in contact.
	adsorption coefficient	Ratio of a substance's total concentration in the sorbed phase and in the solution.
	adsorption/absorption	A remedial technology in which a surfactant or co-solvent solution is exposed to materials onto (adsorption) or into (absorption) which volatile, semi-volatile, non-volatile contaminants will partition. One type of common adsorbent is activated carbon, while polymeric resins act as absorbents.
	advection	The transport of dissolved contaminants by the bulk movement of groundwater flow; the main process driving the movement of dissolved contaminants.
	advisory	A non-regulatory document that communicates risk information to those who may have to make risk management decisions.
	aeration	A process of supplying or introducing air/oxygen into a medium which promotes biological degradation of organic matter in water. The process may be passive (as when waste is exposed to air), or active (as when a

	Glossary	Definition
		mixing or bubbling device introduces the air).
	aeration tank	A chamber used to inject air into water.
	aerobe	Bacteria that use oxygen as an electron acceptor.
	aerobic	Life or processes that require, or are not destroyed by, the presence of oxygen. See Anaerobic.
	aerobic treatment	Process by which microbes decompose complex organic compounds in the presence of oxygen and use the liberated energy for reproduction and growth. Such processes include extended aeration, trickling filtration, and rotating biological contactors.
	affected public	The people who live and/or work near a hazardous waste site.
	affinity	A chemical attraction or force that causes the atoms of certain elements or compounds to combine with atoms of another element or compound and remain in the combined state.
	air purification devices	Respirators or filtration devices which remove particulate matter, gases, or vapors from the atmosphere. These devices range from full face piece, dual cartridge masks with eye protection, to half-mask face piece, mounted cartridges with no eye protection.
	air rotary drilling	Drilling technique that uses air to lift cuttings from the borehole.
	air stripping	A treatment system that removes volatile organic compounds (VOCs) from contaminated groundwater or surface water by forcing an airstream through the water and causing the compounds to volatilize to the airstream, enabling separation of the compounds from the water and possible further treatment of the airstream.
	Alameda	The former home of Alameda Naval Air Station located on the east side of San Francisco Bay, south of the San Francisco Bay Bridge.
	Albany	Capital of the state of New York, name of a Los Angeles Class submarine and location of Marine Corps Logistics Base in Georgia.
	algae	Simple rootless plants that grow in sunlit waters, on rocks and in soil, in proportion to the amount of available nutrients. They can affect water quality adversely by lowering the dissolved oxygen in the water. They are food for fish and small aquatic animals.
	aliphatic hydrocarbon	A compound built from carbon and hydrogen atoms joined in a linear chain. Petroleum products are composed primarily of aliphatic hydrocarbons.
	aliquot	A measured portion of a sample taken for analysis.
	alkali	Any compound having highly basic properties; i.e., one that readily ionizes in aqueous solution to yield OH ⁻ anions, with a pH above 7.0, and turns litmus paper blue. Examples are oxides and hydroxides of certain metals belonging to group IA of the periodic table (Li, Na, K, Rb, Cs, Fr). Ammonia and amines may also be alkaline. Alkalis are caustic and dissolve tissue. Treat alkali burns by quickly washing with large amounts of

	Glossary	Definition
		water for at least 15 minutes. Common commercial alkalis are sodium carbonate (soda ash), caustic soda and caustic potash, lime, lye, waterglass, regular mortar, portland cement, and bicarbonate of soda.
	alkaline	The condition of water or soil which contains a sufficient amount of alkali substances to raise the pH above 7.0.
	alkalinity	The capacity of water to neutralize acids.
	Alkyl(ated) PAH	Polycyclic aromatic hydrocarbons containing one or more carbon- (alkyl) side chains. Also called "substituted PAH".
	alluvial	Relating to mud and/or sand deposited by flowing water.
	Alpha factor	Ratio of indoor air concentration to the soil gas concentration or to groundwater concentration multiplied by the compound's Henry's constant.
	alternative fuels	Substitutes for traditional liquid, oil-derived motor vehicle fuels like gasoline and diesel. Includes methanol, ethanol, compressed natural gas, and others.
	alternative technology	An approach that aims to use resources efficiently or to substitute resources in order to do minimum damage to the environment. This approach permits a large degree of personal user control over the technology.
	ambient	Usual or natural surrounding conditions, e.g., ambient temperature - the natural, uninfluenced temperature of the surroundings.
	anabolism	The process whereby energy is used to build organic compounds, such as enzymes and nucleic acids, that are necessary for life functions.
	anadromous	Fish that spend their adult life in the sea but swim upriver to freshwater spawning grounds to reproduce.
	anaerobic	A life or process that occurs in, or is not destroyed by, the absence of oxygen.
	anaerobic decomposition	Reduction of the net energy level and change in chemical composition of organic matter caused by microorganisms in an oxygen free environment.
	analytes	The chemicals for which a sample is analyzed.
	analytical method	Defines the sample preparation and instrumentation procedures or steps that must be performed to estimate the quantity of analyte in a sample.
	animal studies	Investigations using animals as surrogates for humans with the expectation that the results are pertinent to humans.
	anion	An anion is an ion with a negative charge.
	anion exchange capacity	A quantitative measure of surface charge of an anion reported in equivalents of exchangeable ions per unit weight of the solid.
	anisotropic / anisotropy	Having different properties in different directions. See isotropic.
	anoxic	Condition characterized by low levels (or the absence) of free oxygen.
	antagonism	1) Interference or inhibition of the effect of one chemical by the action of another. 2) An interaction of two or

	Glossary	Definition
		more chemicals which results in an effect that is less than the sum of their effects taken independently.
	anthropogenic	Of or relating to humans or the era of human life. Man-made.
	anthropomorphic	Ascribing human motivation, characteristics, or behavior to inanimate objects, animals, or natural phenomena.
	anti-degradation clause	Part of federal air and water quality requirements prohibiting deterioration where pollution levels are above the legal limit.
	aqueous	Something made up of, similar to, or containing water; watery.
	aquiclude	A saturated geologic unit that is incapable of transmitting significant quantities of water under ordinary hydraulic gradients.
	aquifer	A saturated, permeable geologic formation or structure that is capable of yielding water in usable quantities under ordinary hydraulic gradients.
	aquitard	The less permeable beds in a stratigraphic sequence; beds may be permeable enough to transmit water in quantities that are significant in the study of regional groundwater flow or environmental contamination, but their permeability is not sufficient to allow completion of production wells within them.
	aromatic	A class of hydrocarbons consisting of cyclic conjugate carbon atoms, such as benzene or toluene, commonly added to gasoline in order to increase octane. Some aromatics are toxic.
	artesian aquifer	A confined aquifer in which groundwater rises in a well above the point at which it is naturally found in the aquifer, due to artesian pressure.
	asbestos	A mineral fiber that can pollute air or water and cause cancer or asbestosis when inhaled. EPA has banned or severely restricted its use in manufacturing and construction.
	ash	The mineral content of a product remaining after complete combustion.
	assessment endpoint	Environmental characteristics, which, if they were found to be significantly affected, would indicate a need for remediation (e.g., decrease in sports fisheries).
	assimilative capacity	The capacity of a natural body of water to receive wastewaters or toxic materials without deleterious effects and without damage to aquatic life or humans who consume the water.
	astronomy	The study of the stars.
	asymptote	A straight line always approaching, but never meeting, a curve.
	asymptotic	see asymptote
	atmosphere-supplying devices	Respiratory protection devices coupled to an air source. The two types are Self-Contained Breathing Apparatus (SCBA) and supplied air respirators (airline).
	attenuation	The process by which a compound is reduced in concentration with distance and time through absorption, adsorption, degradation, dilution, diffusion,

	Glossary	Definition
		dispersion, and/or chemical or biological transformation.
	autochthonous	A term applied to rocks of which the dominant constituents have been formed in the natural or original position as opposed to prior erosion and disposition.
	autotrophic	An organism that produces food from inorganic substances, e.g. photosynthetic plants.

ERB Acronym and Glossary – B

Acronym	Glossary	Definition
B	data qualifiers - metals analysis - B	Indicates analyte result between the instrument detection limit and contract required detection limit.
B	data qualifiers - organic analysis - B	The analyte was found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. This flag must be used for a TIC as well as for a positively identified Target Compound List (TCL) compound.
Ba	Barium	The heaviest of the stable alkaline earths, it is a soft, silver-grey metal. It is used in various alloys, paints, soap, paper, rubber, ceramics, glass, insecticides, oil and gas well drilling muds, fireworks, lubricating oil, and steel hardening. It is naturally abundant in nature and is found in plant and animal tissue. Ingestion of barium or some of its compounds can cause muscular problems, and it can accumulate in the skeleton.
BAA	Broad Agency Announcement	to contracting mechanism used to solicit new proposals for fundamental research or innovative technologies.
BACT	Best Available Control Technology	means an emission limitation that will achieve the lowest achievable emission rate for the source to which it is applied. Subject to subdivision (b), "lowest achievable emission rate," as used in this section, means the more stringent of the following:
BADCAT	Bay Area Defense Conversion Action Team	was formed to accelerate the environmental cleanup and civilian re-use of closed military bases in the San Francisco Bay Area.
BADT	Best Available Demonstrated Technology	A technology demonstrated in full-scale commercial operation to have been shown to have statistically better performance than other technologies.
BAEF	Bay Area Economic Forum	a public-private partnership of senior business, government, university, labor and community leaders, develops and implements projects that support the vitality and competitiveness of the regional economy, and enhance the quality of life of the region's residents.
BAF	Bioaccumulation Factor	Concentration of a chemical in living tissue divided by its concentration in the animal's diet
BC	Blind Copy	blind carbon copy. If you add a recipient's name to this box in a message, a copy of the message is sent to that recipient, and the recipient's name is not visible to other recipients of the message. If the Bcc box isn't visible when you create a new message, you can add it.
BCDP	Base Catalyzed Decomposition Process	The technology involves a two-stage process to remove chlorinated organics from soil and dechlorinate them to reduce their toxicity. Contaminated soil is screened, processed with a crusher and pug mill, and mixed with sodium bicarbonate. The mixture is heated to about 350° C (660° F) in a rotary reactor to volatilize the contaminants (Stage 1). The volatilized contaminants are captured, condensed, and treated (Stage 2) by reaction with sodium hydroxide and a hydrogen donor oil in the presence of a catalyst.
BCF	Bioconcentration Factor	Provides a measure of the extent of chemical partitioning at equilibrium between biological medium

Acronym	Glossary	Definition
		such as fish tissue or plant tissue and an external medium such as water. The higher the BCF, the greater the accumulation in living tissue is likely to be.
BCP	BRAC Cleanup Plan	The road map for expeditious cleanup of military facilities necessary to facilitate conveyance of property to communities for redevelopment.
BCT	BRAC Cleanup Team	Acts as the primary forum in which issues affecting base closures; wherein; the execution of cleanup to facilitate reuse will be addressed
BD/DR	Building Demolition/Debris Removal	solid waste, largely inert waste, resulting from the demolition or razing of buildings, of roads, or other structures, i.e., concrete, rock, brick, bituminous concrete, wood, and masonry, composition roofing and roofing paper, steel, plaster, etc.
BDAT	Best Demonstrated Available Technology	As identified by EPA, the most effective, commercially available means of treating specific types of hazardous waste. The BDATs may change with advances in treatment technologies.
Be	Beryllium	A greyish-white metal occurring naturally in certain rocks, soils and volcanic dust. A major emission source to the environment is through the fly ash from combustion of coal and fuel oil, which can contain the metal. It is used in nuclear reactors, radio and television tubes, fluorescent tubes and powders. It is discharged by machine shops, ceramic and propellant plants, and foundries. In the environment, it ultimately accumulates in sediments. Beryllium can cause severe dermatitis problems and can be toxic if inhaled. It is a Group B2, animal carcinogen
BEC	BRAC Environmental Coordinator	The DoD representative on the Base Closure Team; has responsibility and implementation authorities for environmental cleanup programs related to the transfer of the installation's real property.
Benthos	Benthic Organism	A form of aquatic plant or animal life that is found on or near the bottom of a stream, lake, ocean or other water body.
BEP	bis(2-ethylhexyl)phthalate	A phthalate chemical used in plastics to enhance pliability, also sometimes also known as DEHP. Phthalates are generally listed as hazardous substances.
bgs	below ground surface	This phrase generally pertains to ground water level where the upper surface of the ground water is some distance below ground surface.
BHC	Benzene Hexachloride (Lindane)	A chemical that is used as a pesticide (may be restricted) . Toxic by inhalation, ingestion, and skin absorption.
BIOPLUME	Computer model to predict the maximum extent of existing plumes	A two-dimensional, finite difference model for simulating the biodegradation of hydrocarbons in groundwater. The Bioplume III model simulates both aerobic and anaerobic biodegradation processes in addition to advection, dispersion, sorption and ion exchange.
BLM	Bureau of Land Management	an agency within the US Department of the Interior, administers 261 million acres of America's public lands.
BMD	Benchmark Dose	This is the dose which corresponds with a given

Acronym	Glossary	Definition
		statistical likelihood of health impairment in the exposed population.
BMP	Best Management Practice	Methods that have been determined to be the most effective, practical means of preventing or reducing pollution from nonpoint sources.
BMP	Bi-Metallic Process	Nanoscale particles made from a combination of two metals, one of which typically is zerovalent iron; the second metal acts as a catalyst and enhances the reactivity of the iron.
BNA	Base Neutral Acid Compound	See Semi-Volatile Organic Compound (SVOC).
BNA	Base-Neutral and Acid-Extractable organic compounds - now SVOCs	A priority pollutant.
BNP	bimetallic nanoscale particle	Any nanoscale (10-9 m diameter) particle comprised of 2 metals. In remediation scenarios, this term generally refers to iron particles coated or "doped" with a catalyst, commonly palladium, at a rate of less than 0.1% total particle weight. These particles are also referred to as palladized iron particles.
BOD	Biochemical Oxygen Demand	A measure of the amount of oxygen consumed in the biological processes that break down organic matter in water. The greater the BOD, the greater the degree of pollution.
BOD	Biological Oxygen Demand	An indirect measure of the concentration of biologically degradable material present in organic wastes. It usually reflects the amount of oxygen consumed in five days by biological processes breaking down organic waste.
BP	Boiling Point	The temperature at which a liquid changes its phase to a vapor or gas. This is the temperature at which a liquid's vapor pressure is equal to the surrounding atmospheric pressure, so the liquid rapidly volatilizes.
Br	Bromine	A halogen that can substitute for hydrogen in many organic compounds, generally making the resultant compound more toxic.
BRAC	Base Realignment and Closure	Refers to policy, procedures, authorities, and responsibilities for closing or realigning military installations across the Department of Defense. Includes environmental restoration activities.
BSL	BTAG Screening Level	Biological Technical Advisory Group's simplified risk assessment that can be conducted with limited data and uses conservative assumptions to minimize the chances of concluding that there is no risk when, in fact, a risk exists.
BTAG	Biological Technical Assistance Group	was founded to provide The Department of the Army (DA) Environmental program managers with technical support addressing ecological, biological, and chemical issues at Army environmental sites.
BTEX	Benzene, Toluene, Ethyl benzene and Xylene	(sometimes pronounced "bee-tex") is an acronym for Benzene, Toluene, Ethylbenzene, Xylenes which are major components of gasoline and indicators of light-hydrocarbon contamination. BTEX is often analyzed in conjunction with TPH.
BTU	British Thermal Unit	a unit of heat equal to the amount of heat required to raise one pound of water one degree Fahrenheit at one

Acronym	Glossary	Definition
		atmosphere pressure; equivalent to 251.997 calories
BTX	Benzene, Toluene and Xylene	may pose potential health risks to children when exposed. The Voluntary Children's Chemical; Evaluation Program (VCCEP) is investigating the effects of these chemical to this specific population.
BUMED	Bureau of Medicine and Surgery	the headquarters command for the Navy medical department
BW	Body Weight, kg	the weight of a person's body

ERB Glossary – B

Acronym	Glossary	Definition
	background correction	In data analysis, a technique to compensate for variable background contribution to the instrument signal and the determination of trace metals.
	background level	1) Naturally occurring levels: ambient concentrations of chemicals present in the environment that have not been influenced by humans; 2) Anthropogenic levels: concentrations of chemicals that are present in the environment due to human-made, non-site sources.
	backwashing	Reversing the flow of water back through the filter media to remove the entrapped solids.
	bacteria	(Singular: bacterium) Microscopic living organisms ubiquitous in the environment, that can aid in pollution control by metabolizing organic matter in sewage, oil spills or other pollutants. However, bacteria in soil, water or air can also cause human, animal and plant health problems.
	baghouse filter	Large fabric bag, usually made of glass fibers, used to eliminate intermediate and large (greater than 20 microns in diameter) particles. This device operates like the bag of an electric vacuum cleaner, passing the air and smaller particles while entrapping the larger ones.
	bailer	A long pipe with a valve at the lower end, used to remove slurry from the bottom or side of a well as it is being drilled or to obtain a water sample from a developed well.
	barrier coating	A layer of a material that obstructs or prevents passage of something through a surface that is to be protected, e.g. grout, caulk, or various sealing compounds; sometimes used with polyurethane membranes to prevent corrosion or oxidation of metal surfaces, chemical impacts on various materials, or, for example, to prevent radon infiltration through walls, cracks, or joints in a house.
	base	Substances that (usually) liberate OH anions when dissolved in water. Bases 1) react with acids to form salts; 2) have a pH greater than 7.0; 3) turn litmus paper blue; and 4) may be corrosive to tissue. A strong base is called alkaline or caustic. Examples are lye and DRANO.
	baseline risk assessment	An analysis of the potential adverse health effects

Acronym	Glossary	Definition
		(current or future) caused by contaminant releases from a site in the absence of any actions to control or mitigate these releases. According to EPA, the baseline risk assessment can be used to determine whether: 1) A release or threatened release poses an unacceptable risk to human health or the environment that warrants remedial action, and 2) A site presents an imminent and substantial endangerment. The primary purpose is to provide risk managers with an understanding of the actual and potential risks to human health and the environment posed by the site and the uncertainties associated with the assessment.
	bed load	Sediment particles resting on or near the channel bottom that are pushed or rolled along by the flow of water.
	bedrock	Any solid rocks exposed at the surface or overlain by unconsolidated materials.
	bench-scale test	Laboratory testing of potential cleanup technologies. Contaminated media from the site are generally used to determine the applicability of a technology to a specific site. See Pilot Tests and Treatability Studies.
	benthic region	The bottom layer of a body of water.
	bentonite	Clay made of decomposed volcanic ash which is used to seal wells (hole plug).
	bias	Consistent deviation of measured values from the true value, caused by systematic errors in a procedure.
	bicarbonates	Metal + HCO ₃ , e.g. NaHCO ₃ . Can raise the pH to a high concentration which may be corrosive.
	bioaccumulants	Substances that increase in concentration in living organisms as they take in contaminated air, water, or food because the substances are very slowly metabolized or excreted. See Biological Magnification.
	bioassay	Study of living organisms to measure the effect of a substance, factor, or condition by comparing before-and-after exposure or other data.
	bioaugmentation	The addition of microbe cultures to groundwater or soil to enhance biodegradation.
	bioavailability	A general term to describe the accessibility of contaminants to ecological populations. Bioavailability consists of: 1) a physical aspect related to phase distribution and mass transfer, and 2) a physiological aspect related to the suitability of the contaminant as a substrate.
	biobarrier	An In Situ remediation technology consisting of a trench filled with biological medium to encourage the growth of bacteria capable of degrading contaminants.
	biocide	A chemical poison used to kill bacteria and small animals and plants. Biocides are commonly used in paint for ships and in piping systems that are constantly exposed to water.
	bioconcentration	The accumulation of a chemical in tissues of an organism (such as a fish) to levels greater than in the surrounding medium in which the organism lives.

Acronym	Glossary	Definition
	biodegradable	Capable of decomposing under natural conditions.
	biodegradation	1) The reduction in concentration of a chemical or physical agent through naturally occurring microbial activity. 2) The process of an organic molecule becoming transformed by biological means.
	biodegradation rate	The mass of contaminant metabolized by microorganisms per unit time. In soil contamination this is normalized to the mass of soil and usually is expressed as mg contaminant degraded/kg soil/day (mg/kg/day).
	biodiversity	Refers to the variety and variability among living organisms and the ecological complexes in which they occur. Diversity can be defined as the number of different items and their relative frequencies. For biological diversity, these items are organized at many levels, ranging from complete ecosystems to the biochemical structures that are the molecular basis of heredity. Thus, the term encompasses different ecosystem, species, and genes.
	biogenic	Term applied to chemicals (commonly PAH) formed by modern biological processes or by diagenetic processes (e.g., oxidation of organic matter) in recent sediments
	biological additive	Microbiological cultures, enzymes, or nutrient additives that are deliberately introduced into a discharge for the specific purpose of encouraging biodegradation to mitigate the effects of the discharge.
	biological magnification	Refers to the process whereby certain substances such as pesticides or heavy metals move up the food chain, work their way into rivers or lakes, and are eaten by aquatic organisms such as fish, which in turn are eaten by large birds, animals or humans. The substances become concentrated in tissues or internal organs as they move up the chain. See Bioaccumulants.
	biological oxidation	Decomposition of complex organic materials by microorganisms. Occurs in self-purification of water bodies and in activated sludge wastewater treatment.
	biological treatment	A treatment technology that uses bacteria to consume waste.
	biomarkers	Chemicals in petroleum, coal, or sediments whose structure can be unequivocally linked to a naturally occurring biochemical. Useful in fingerprinting because of their source specificity and resistance to weathering.
	biomass	All of the living material in a given area; often refers to vegetation.
	biome	The entire community of living organisms in a single major ecological area. See Biotic Community.
	biomonitoring	1) The use of living organisms to test the suitability of effluents for discharge into receiving waters and to test the quality of such waters downstream from the discharge. 2) Analysis of blood, urine, tissues, etc., to measure chemical exposure in humans or animals.
	biopile	Soil pile constructed to allow aerobic bioremediation by aeration, possibly supplemented with water and nutrients.

Acronym	Glossary	Definition
	bioreactor	A container or area in which a biological reaction or biological activity takes place.
	bioreclamation	The process of making a contaminated site usable again through biological processes.
	bioremediation	1) Use of living organisms to clean up oil spills or remove other pollutants from soil, groundwater, or wastewater. 2) Use of organisms such as non-harmful insects to remove agricultural pests or counteract diseases of trees, plants, and garden soil.
	biosensor	A device that uses living organisms, such as enzymes, tissues, microbes, and antibodies, to produce reactions, which are then analyzed to detect the presence of a chemical or chemical reaction.
	bioslurping	A technology application that teams vacuum-assisted free-product recovery with bioventing to simultaneously recover free product and remediate the vadose zone.
	biosparging	Introduction of air in the saturated zone to promote bioremediation
	biosphere	The portion of Earth and its atmosphere that can support life.
	biostimulation	The addition of nutrients or cofactors to increase biodegradation rates.
	biota	The animal and plant life of a given region.
	biotechnology	Techniques that use living organisms or parts of organisms to produce a variety of products (from medicines to industrial enzymes) to improve plants or animals or to develop microorganisms to remove toxic compounds from bodies of water, or act as pesticides.
	biotic community	A naturally occurring assemblage of plants and animals that live in the same environment and are mutually sustaining and interdependent. See Biome.
	biotic layer	A layer in a landfill cap to prevent animals from burrowing through the cap.
	biotransformation	Conversion of a substance into other compounds by organisms; includes biodegradation.
	bioventing	The process of aerating vadose zone soils by means of installed vents to stimulate in situ biological activity and optimize biodegradation of organic compounds with some volatilization occurring.
	bioventing	A remediation process/technology that supplies indigenous microorganisms with oxygen to support in situ degradation of hydrocarbon contaminants.
	bitumen	A mixture of hydrocarbon compounds soluble in carbon disulfide.
	blank	An artificial sample designed to monitor the introduction of artifacts into the sampling and analytical process. For aqueous samples, reagent water is used as a blank matrix; however, a universal blank matrix does not exist for solid samples, but sometimes clean sand is used as a blank matrix. The blank is taken through all appropriate steps of the process. A reagent blank is an aliquot of analyte-free water or solvent analyzed with the analytical batch. Field blanks are aliquots of analyte-

Acronym	Glossary	Definition
		free water or solvents brought to the field in sealed containers and transported back to the laboratory with the sample containers. Trip blanks and equipment blanks are two specific types of field blanks. Trip blanks are not opened in the field. They are used to monitor sample contamination originating from transport, shipping, and site conditions. Equipment blanks are opened in the field and the contents poured over or through the sampling equipment, collected in a sample container, and returned to the laboratory as a sample. Equipment blanks monitor sampling device cleanliness and decontamination effectiveness.
	blood borne pathogens	Pathogenic microorganisms that are present in human blood and can cause diseases in humans. These pathogens include hepatitis B virus (HBV) and human immunodeficiency virus (HIV).
	bloom	A proliferation of algae and/or higher aquatic plants in a body of water; often related to pollution, especially when pollutants accelerate growth.
	blower	A unit of rotating mechanical equipment used to increase the pressure in a gas stream and providing a total pressure rise of more than 4 inches of water and less than 14.7 psi.
	boom	A floating device used to contain oil on a body of water.
	borehole	A hole cut into the ground by means of a drilling rig or an auger.
	borehole video	Images recorded by a custom made video camera lowered into a subsurface test hole (borehole).
	bottom ash	The non-airborne combustion residue from burning pulverized coal in a boiler which falls to the bottom of the boiler and is removed mechanically. Bottom Ash is a concentration of the non-combustible materials, which may include toxic compounds.
	BRAC environmental funding	Includes all NAVFAC centrally-managed environmental projects, except NEPA, that are funded through the BRAC account such as environmental studies, clean up, compliance, and restoration. For Marine Corps installations, it includes funding for only restoration work.
	brackish	Mixed fresh and salt water.
	brine mud	Waste material, often associated with well-drilling or mining, composed of mineral salts or other inorganic compounds.
	brownfields	Abandoned, idled, or under-used industrial and commercial facilities/sites where expansion or redevelopment is complicated by real or perceived environmental contamination.
	Brunswick	Naval Air Station Brunswick is located in Brunswick, Maine.
	buffer	A substance that reduces the change in pH that would otherwise be produced by adding acids or bases to a solution. A pH stabilizer.
	business	The activities of those engaged in the purchase or sale

Acronym	Glossary	Definition
		of commodities or in related financial transactions.
	by-product	Material, other than the principal product, generated as a consequence of an industrial process.

ERB Acronym and Glossary – C

Acronym	Glossary	Definition
C	Carbon	An element, the presence of which can be used to separate organic from inorganic compounds.
C	data qualifiers - method (analytical) qualifier - C	Manual Spectrophotometric.
C	data qualifiers - organic analysis - C	Applies to pesticide results where the identification has been confirmed by Gas Chromatography/ Mass Spectrometry (GC/MS). Single component pesticides ³ 10 ng/đml in the final extract shall be confirmed by GC/MS.
Ca	Calcium	An alkaline earth metal that is very abundant in the environment. Readily forms salts with various metals and halogens. When present in water, it can indicate salinity and alkalinity. Contributes to hard water when present in high concentrations. It is an essential nutrient for animals and humans. Not generally considered toxic.
CA	Cooperative Agreement	1) Part of the DSMOA program. The CA assists in implementing the DSMOA. The CA provides reimbursement to states for cleanup activities at installations within the state. 2) An assistance agreement whereby EPA transfers money, property, services or anything of value to a state for the accomplishment of CERCLA-authorized activities or tasks.
CA	Corrective Action	The sequence of actions that include site assessment, interim remedial action, remedial action, operation and maintenance of equipment, monitoring of progress, and termination of the remedial action.
CA	Corrective Action or Cleanup Action	The sequence of actions that include site assessment, interim remedial action, remedial action, operation and maintenance of equipment, monitoring of progress, and termination of the remedial action.
CAA	Clean Air Act	The CAA was passed in 1970 as amendments to 42 USC 7401, and was amended in 1990. Its purpose is to "protect and enhance the quality of the Nation's air resources." Its primary application is through Prevention of Significant Deterioration permits to regulate new potentially polluting facilities. Of increasing importance are the National Emissions Standards for Hazardous Air Pollutants (NESHAPs).
CAAA	Clean Air Act Amendments	Amendments to the Clean Air Amendments establishing the National Ambient Air Quality Standards for "criteria contaminants" to address other air pollution problems.
CADD	Computer Aided Design and Drafting	Computer Aided Drafting or CAD drafting is a technical field for providing precision drawings for various occupations.
CAP	Corrective Action Plan	Associated with the Underground Storage Tank (UST) Program, it describes the appropriate corrective measures to be implemented at a site. Equivalent to a CERCLA Feasibility Study (FS).
CAS	Chemical Abstract Service Registration Number	A number assigned by the Chemical Abstracts Service to identify a chemical.
CATEX	Categorical Exclusion	A class of actions which either individually or cumulatively would not have a significant effect on the

Acronym	Glossary	Definition
		human environment and therefore would not require preparation of an Environmental Assessment or Environmental Impact Statement under the National Environmental Policy Act (NEPA).
CAX	Cheatham Annex	also the Regional Supply Office (RSO) for the Peninsula at Naval Weapons Station Yorktown, Cheatham Annex. The mission is to provide complete retail supply support services for approximately 40 tenant activities between Cheatham Annex, Williamsburg and Naval Weapons Station, Yorktown. Included as part of this support service is custody asset storage for large, bulky and unique Navy material and programs.
CBC	Construction Battalion Center	functions as a support for operating units of the Naval Construction Force.
Cd	Cadmium	A soft metal used in electroplating, pigments, plastic stabilizers, batteries, fusible alloys, soft solder, and solder for aluminum. Pollution sources include smelter fumes and dust, some incineration products, fertilizer, municipal wastewater and sludge discharges. It is also an industrial byproduct of the manufacturing of zinc, copper and lead. Its mobility depends on the pH and redox state of the local environment. It can be adsorbed to sediments and soils or relatively soluble in surface water or groundwater depending on the conditions. Bioaccumulation in the environment is a concern. Ingestion can cause gastrointestinal problems, and inhalation can cause lung problems.
CDC	Centers for Disease Control	lead federal agency for protecting the health and safety of people - at home and abroad, providing credible information to enhance health decisions, and promoting health through strong partnerships. CDC serves as the national focus for developing and applying disease prevention and control, environmental health, and health promotion and education activities designed to improve the health of the people of the United States.
CDF	Confined Disposal Facility	An engineered structure for containment of dredged material. The confinement dikes or structures in a CDF enclose the disposal area above any adjacent water surface, isolating the dredged material from adjacent waters during placement.
CDI	Chronic Daily Intake	Exposure expressed as mass of a substance contacted per unit body weight per unit time averaged over a long period of time (as a Superfund program guideline, seven years to a lifetime) mg/kg/day.
CEAM	Center for Exposure Assessment Modeling	was founded to meet the scientific and technical exposure assessment needs of the United States Environmental Protection Agency (U.S. EPA) as well as state environmental and resource management agencies. CEAM provides proven predictive exposure assessment techniques for aquatic, terrestrial, and multimedia pathways for organic chemicals and metals.
CEC	Civil Engineer Corps	The Civil Engineer Corps (CEC) is a relatively small Navy community consisting of approximately 1300 officers, Billet locations for the CEC range from Bahrain, Saudi Arabia to Keflavik, Iceland, CEC officers have a

Acronym	Glossary	Definition
		broad range of professional skills including contract management, public works management, Seabee operations, and other various fields,
CEQ	Council on Environmental Quality	coordinates federal environmental efforts and works closely with agencies and other White House offices in the development of environmental policies and initiatives.
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980	The Federal statute enacted in 1980 and amended in 1986 by the Superfund Amendment and Reauthorization Act (SARA) that establishes a comprehensive, statutory framework for identifying, investigating, and cleaning up releases of hazardous substances to the environment. CERCLA authorizes the President to take response actions when a release or the threat of a release is discovered. Through Executive Order 12580, signed in January 1987, the President directs the Secretary of Defense to implement investigation and cleanup measures in consultation with EPA for releases of hazardous substances from facilities under the jurisdiction of the Secretary.
CERCLIS	Comprehensive Environmental Response, Compensation and Liability Act Information System	EPA's comprehensive database and management system that inventories and tracks releases addressed or needing to be addressed by the Superfund program. CERCLIS contains the official inventory of CERCLA sites and supports EPA's site planning and tracking functions. Sites that EPA decides do not warrant moving further in the site evaluation process are given a "No Further Response Action Planned" (NFRAP) designation. This means that no additional federal steps under CERCLA will be taken at the site unless further information warrants action. Sites are not removed from the data base after completion of evaluations in order to document that these evaluations took place and to preclude the possibility that they be needlessly repeated. Inclusion of a specific site or area in the CERCLIS database does not represent a determination of any party's liability, nor does it represent a finding that any response action is necessary. Sites that are deleted from the NPL are not designated NFRAP sites. Deleted sites are listed in a separate category in the CERCLIS database.
CERFA	Community Environmental Response Facilitation Act of 1992	This law amends CERCLA and requires that the federal government identify real property which is not contaminated, and that offers the greatest opportunity for expedited reuse and redevelopment by the community on each facility. The identified parcels of real property must be either free from hazardous substances and petroleum products, including aviation fuel and motor oil, and their derivatives, or the remediation of contamination by those substances should be expedited to facilitate transfer to the public.
CEU	Continuing Education Units	A nationally recognized method of quantifying the time spent in the classroom during professional development and training activities.

Acronym	Glossary	Definition
CF	Conversion Factor	A factor used to equate the price of T-bond and T-note futures contracts with the various cash T-bonds and T-notes eligible for delivery. This factor is based on the relationship of the cash-instrument coupon to the required eight percent deliverable grade of a futures contract as well as taking into account the cash instrument's maturity or call.
CFC	Chlorofluorocarbon	A family of inert, nontoxic, and easily liquified chemicals used in refrigeration, air conditioning, packaging, insulation, or as solvents and aerosol propellants. Because CFCs are not destroyed in the lower atmosphere they drift into the upper atmosphere where their chlorine components destroy ozone.
CFM	Cubic Feet per Minute	A measure of the volume of a substance flowing through air within a fixed period of time. With regard to indoor air, refers to the amount of air, in cubic feet, that is exchanged with indoor air in a minute's time, i.e., the air exchange rate.
CFR	Code of Federal Regulations	The basic reference source for federal rules. Published annually, it is a compilation of the regulations of various federal agencies. The CFR is divided into 50 titles according to subject. For example, Title 7 deals with agriculture, Title 40 with the environment and Title 49 with transportation. Titles are divided into chapters, then to parts, sections, etc. The section is the basic unit of the CFR. Ideally, it consists of a short, concise presentation of a single point. It is important to note that the CFRs are changed daily by publication of the Federal Register (FR). The CFRs are the combination of regulations published in the FR for the previous year.
CFS	Cubic Feet per Second	A unit expressing rates of discharge. One cubic foot per second is equal to the discharge through a rectangular cross section, 1 foot wide by 1 foot deep, flowing at an average velocity of 1 foot per second. It is also approximately 7.48 gallons per second.
CH20	Formaldehyde	A colorless, pungent, and irritating gas, used chiefly as a disinfectant, preservative, and in synthesizing other compounds like resins.
CH4	Methane	A colorless, nonpoisonous, flammable gas created by anaerobic decomposition of organic compounds.
CHF	Contaminant Hazard Factor	A combined measure of contaminant concentrations in a given environmental medium.
CI	Confidence Interval	gives an estimated range of values which is likely to include an unknown population parameter, the estimated range being calculated from a given set of sample data.
CIMAGE	CIMAGE	Commercial Off the Shelf (COTS) software for document and records management.
cis 1,2-DCE	cis 1,2-Dichloroethene	A biological breakdown product of the more halogenated forms of ethene, Tetrachloroethene and Trichloroethene. Also used as an industrial solvent and is volatile.
CITT	conservative interwell tracer test	A tracer test using nonpartitioning (i.e., conservative) tracers. A CITT is commonly conducted prior to a PITT

Acronym	Glossary	Definition
		or surfactant flood in order to fine tune the design parameters for the PITT of surfactant flood (e.g., injection and extraction flow rates, tracer residence time, tracer dilution, and tracer recovery).
Cl	Chlorine	A halogen that can substitute for hydrogen in many organic compounds. The resulting compounds are generally less flammable but highly toxic and persistent in the environment.
Cl-	Chlorides	Indicative of the concentration of salt water. Concentrations above 250mg/L are detectable by taste.
CLEAN	Comprehensive Long Term Environmental Action, Navy	A broad multi-year environmental contract.
CMC	Commandant of the Marine Corps	The highest ranking officer of the United States Marine Corps, who is a member of the Joint Chiefs of Staff and reports to the Secretary of the Navy.
CMI	Corrective Measures Implementation	The RCRA Corrective Action phase during which the selected cleanup technology is constructed, installed, implemented and/or operated until confirmatory sampling and analysis indicate that cleanup levels have been reached. Equivalent to a CERCLA Remedial Action (RA).
CMS	Corrective Measures Study	Evaluates the alternatives for cleanup technology in terms of the specific site characteristics such as contaminants, soil conditions and hydrogeologic conditions in a RCRA Corrective Action cleanup. Equivalent to a CERCLA Feasibility Study (FS).
CMS	Cost Effective Sampling	A method developed at Lawrence Livermore National Laboratory used to estimate the lowest frequency and, as a result, the lowest cost sampling schedule for a given monitoring well that still provides needed information for remedial and compliance-related decision making.
CMT	Continuous Multichannel Tubing	A multilevel groundwater monitoring system that uses custom-extruded flexible multichannel HDPE tubing to monitor as many as seven discrete zones within a single borehole.
CNG	Compressed Natural Gas	An alternative fuel for motor vehicles; considered one of the cleanest because of low hydrocarbon emissions and its vapors are relatively non-ozone producing. However, it does emit a significant quantity of nitrogen oxides.
CNO	Chief of Naval Operations	The senior military officer of the Department of the Navy. The CNO is a four-star admiral and is responsible to the Secretary of the Navy for the command, utilization of resources and operating efficiency of the operating forces of the Navy and of the Navy shore activities assigned by the Secretary. A member of the Joint Chiefs of Staff, the CNO is the principal naval adviser to the President and to the Secretary of the Navy on the conduct of war, and is the principal adviser and naval executive to the Secretary on the conduct of activities of the Department of the Navy.
CNS	Central Nervous System	The portion of the vertebrate nervous system consisting of the brain and spinal cord.
CO	Carbon Monoxide	A colorless, odorless, poisonous gas produced by

Acronym	Glossary	Definition
		incomplete fossil fuel combustion.
Co	Cobalt	A hard, ductile, ferromagnetic metal. It is rare but produced primarily as a byproduct of other metals. It is used in chemical agents, electroplating, ceramics, lamp filaments, catalysts, dryers in printing inks, paints and varnishes, and in high temperature alloys. Cobalt can be soluble in water, but depends mainly on the presence and characteristics of adsorbing clay minerals and hydrous oxides of iron, manganese and aluminum in the local environment. Chelation is also possible.
CO	Commanding Officer or Contracting Officer	A US military officer or civilian employee who has a valid appointment as a contracting officer under the provisions of the Federal Acquisition Regulation. The individual has the authority to enter into and administer contracts and determinations as well as findings about such contracts.
CO2	Carbon Dioxide	A colorless, odorless, non-poisonous gas, which results from fossil fuel combustion and is normally a part of the ambient air.
COC	Chain of Custody	A process used to maintain and document the chronological history of the evidence. (Documents should include name or initials of the individual collecting the evidence, each person or entity subsequently having custody of it, dates the items were collected or transferred, agency and case number, victim's or suspect's name, and a brief description of the item.)
COC	Chemicals of Concern	Specific constituents that are identified for evaluation in the risk assessment process.
COC	Contaminant/Chemical of Concern	any contaminant that is shown to pose possible ecological risk to a site; also known as Contaminants of Concern, Contaminants of Potential Concern, or Contaminants of Interest.
COD	Chemical Oxygen Demand	A measure of the oxygen required to oxidize all compounds, both organic and inorganic, in water.
COE	Corps of Engineers (Army)	Plans, designs, builds and operates water resources and other civil works projects (Navigation, Flood Control, Environmental Protection, Disaster Response, etc.); Designs and manages the construction of military facilities for the Army and Air Force. (Military Construction); Provides design and construction management support for other Defense and federal agencies. (Interagency and International Services).
COMNAVBASE	Commander, Naval Base	The Naval Base Commander serves as Navy regional coordinator, setting policy and providing the leadership and continuity necessary to sustain the combat-ready force, leading the combined efforts of commands and activities which support operational fleet units.
COMPTRAK	Marine Corps Environmental Compliance Tracking System	CompTRAK, a database program, provides a necessary link between project-specific information and the budget. Each Marine Corps installation and Marine Forces command is responsible for reviewing its environmental program requirements on a continuing basis and entering them into the database. Based on this data, each installation and Forces command provides an

Acronym	Glossary	Definition
		Operations Plan Submission (OPS) to HQMC annually covering the ensuing 2 years. The OPS serves as the programming, budgeting, and funding tool for local and centrally managed environmental funds.
CONUS	Continental United States	refers to the largest part of the U.S. that is delimited by a continuous border, also referred to as the conterminous states, the coterminous states, or the contiguous states.
COPC	Chemicals of Potential Concern	Chemicals identified in the initial stages of a site investigation that may pose a risk, and so are further investigated to gather data for a risk assessment.
COPC	Contaminant of Potential Concern	any contaminant that is shown to pose possible ecological risk to a site; also known as Contaminants of Concern, Contaminants of Potential Concern, or Contaminants of Interest.
COPC	Contaminant/Chemical of Potential Concern	any contaminant that is shown to pose possible ecological risk to a site; also known as Contaminants of Concern, Contaminants of Potential Concern, or Contaminants of Interest.
COTR	Contracting Officer's Technical Representative	An individual responsible for monitoring the Contractor's technical progress and recommending to the Contracting Officer changes in requirements; interpreting the Scope of Work; performing technical evaluation as required; performing technical inspections and acceptances required by the contract and assisting the Contracting Officer in the resolution of technical problems encountered during performance.
CPF	Carcinogenic Potency Factor	The upper 95th percentile confidence limit of the slope of the dose-response curve; expressed in units of (mg/kg/day) ⁻¹ . When derived from human epidemiological data, the carcinogenic potency factor may be a maximum likelihood estimate.
CPR	Cardiopulmonary Resuscitation	an emergency life-saving technique. Artificial respirations and chest compressions are used to restart the heart and lungs.
CPT	Cone Penetrometer Test	method to assess subsurface stratigraphy associated with soft materials, discontinuous lenses, organic material, potentially liquefiable material and landslides.
CQC	Construction Quality Control	consists largely of insuring conformance to the original design and planning requirements.
Cr	Chromium	A heavy metal that exists naturally as the trivalent (III) form and is man-made in the hexavalent (VI) form. It is used in making chrome-steel and chrome-nickel-steel alloys, chrome plating of metals, brick lining for high-temperature industrial furnaces, dyes, pigments, leather, wood preservatives, and cooling tower water treatment. The ultimate fate of chromium is to settle into sediments, however, it is slightly soluble and can persist in the water column for years before settling. In soil, chromium (III) tends to adhere to soil particles whereas chromium (VI) does not. This process depends on the pH and redox state of the soil. Chromium (III) is not very toxic because it does not bioaccumulate and generally does not penetrate biological membranes. However, chromium (VI) is considered more toxic because of its high oxidizing potential and it can penetrate biological

Acronym	Glossary	Definition
		membranes. Dermal contact with chromic acid or chromium salts can cause lesions and ulcers. Chromium is a Group B, human carcinogen by inhalation. See Heavy Metals.
CRDL	Contract Required Detection Limit	Minimum level of detection acceptable under the contract Statement of Work.
CRP	Community Relations Plan	A written plan of action that provides for interaction with the public, elected officials and environmental groups, including obtaining their input at appropriate points during the Installation Restoration (IR) process. A CRP must be developed and implemented for removal actions and remedial actions at all IR sites. It will be based on research conducted by community interviews with state and local officials, citizen and community groups, interested residents, and local media representatives.
CRQL	Contract Required Quantitation Limit	Minimum level of detection acceptable under the contract Statement of Work. A range within which specified measurement results must fall to be compliant. Control limits may be mandatory, requiring corrective action if exceeded, or advisory, requiring that noncompliant data be flagged. It replaces the existing Contract Required Detection Limits (CRDL).
CRZ	Contamination Reduction Zone	In hazardous waste health and safety operations, the forward control for operations outside the Hot Zone. Personnel protection may be required. Restricted to operations and support personnel essential to hands-on work performed in the Hot Zone.
CSM	Conceptual Site Model	Describes a series of ideas about how a chemical might affect ecological components (primarily the plants and animals, but also the interactions among plants and animals). Also, describes ecosystems or ecosystem components potentially at risk, and the relationships between measurement and assessment endpoints and how plants and animals might get exposed to harmful chemicals.
CTC	Cost to Complete	costs to be incurred to satisfy the complete scope of a project at a specific data date. The difference between the cost to date and the forecast final cost
CTET	carbon tetrachloride (CCl ₄)	Compound consisting of one carbon atom and four chlorine atoms, once widely used as an industrial raw material, as a solvent, and in the production of chlorofluorocarbons (CFCs). Its use as a solvent ended when it was discovered to be carcinogenic.
Cu	Copper	A ductile, malleable metal that occurs naturally in rock, soil, water, sediment, plants and animals and can occur as copper (II) or (I). It is used in brass, copper alloys, electrical conductors, copper salts, art, in agriculture to treat plant diseases, for water treatment, and as preservatives for wood, leather and fabrics. Most copper in water is in the (II) state and is bound to organic matter and not in a readily exchangeable form. In soil, copper will be strongly adsorbed. Copper salts are strong skin and mucous membrane irritants. When bioavailable, copper is highly toxic to aquatic invertebrates.

Acronym	Glossary	Definition
CURTT	Clean Up Review Tiger Team	was established to review existing cleanup technology selections at all eight engineering field divisions and activities' Installation Restoration (IR) sites and Base Realignment and Closure (BRAC) sites. CURTT is composed of in-house experts and nationally known technical consultants, academics and cost estimators.
CV	Coefficient of Variation	The standard deviation as a percent of the arithmetic mean.
CV	data qualifiers - method (analytical) qualifier - CV	Manual Cold Vapor AA.
CVOC	Chlorinated Volatile Organic Compound	An organic compound that is best identified and quantified by using EPA Method 8270C.
CWA	Clean Water Act of 1977	The CWA amended the Federal Water Pollution Control Act first passed in 1956. Its objective is to "restore and maintain the chemical, physical and biological integrity of the Nation's waters." The Act's major enforcement tool is the National Pollutant Discharge Elimination System (NPDES) permit.
CZMA	Coastal Zone Management Act	The Coastal Zone Management Program (CZMP) is authorized by the Coastal Zone Management Act of 1972 and administered at the federal level by the Coastal Programs Division (CPD) within the National Oceanic and Atmospheric Administration's Office of Ocean and Coastal Resource Management (OCRM). The CPD is responsible for advancing national coastal management objectives and maintaining and strengthening state and territorial coastal management capabilities. It supports states through financial assistance, mediation, technical services and information, and participation in priority state, regional, and local forums.

ERB Glossary – C

Acronym	Glossary	Definition
	calibration	The establishment of an analytical curve based on the absorbance, emission intensity, or other measured characteristic of known standards. The calibration standards must be prepared using the same type of acid or concentration of acids as used in the sample preparation, i.e., the same matrix.
	calibration blank	Usually an organic or aqueous solution that is as free of analyte as possible and prepared with the same volume of chemical reagents used in the preparation of calibration standards and diluted to the appropriate volume with the same solvent (water or organic). The calibration blank is used to give the null reading for the instrument response versus concentration calibration curve. One calibration blank should be analyzed with each analytical batch or every method-specified number of samples, whichever is more frequent.
	calibration check	Verification of the ratio of instrument response to analyte amount, a calibration check is done by

Acronym	Glossary	Definition
		analyzing for analyte standards in an appropriate solvent. Calibration check solutions are made from a stock solution which is different from the stock used to prepare standards.
	calibration standards	A series of known standard solutions used by the analyst for calibration of the instrument (i.e. preparation of the analytical curve).
	Camp Lejeune	Marine Corps Base, Camp Lejeune is located in eastern North Carolina on the Atlantic coast.
	cancer	The development of a malignant tumor or abnormal formation of tissue.
	cancer risk	Incremental probability of an individual developing cancer over a lifetime as a result of exposure to a chemical.
	cap	A layer of clay, or other impermeable material installed over the top of a closed landfill to prevent infiltration of rainwater and minimize leachate.
	capillarity	The action by which a liquid is held to a solid by surface tension; also known as capillary force
	capillary action	Upward movement of water through very small spaces due to molecular forces and surface tension, called capillary forces.
	capillary barrier	Sloping layers of fine over coarse soils for the hydraulic isolation of buried wastes. Generally used to prevent water infiltration into landfills.
	capillary fringe	A zone of porous material lying between the unsaturated and saturated zone, just above the water table, which may hold water by capillary action in the smaller void spaces.
	capillary pressure	The difference between the non-wetting-phase and wetting-phase pressures
	capillary trapping	The prevention of NAPL movement due to capillary forces; NAPL will be immobilized when the vector sum of viscous and gravitational forces are less than the capillary force.
	capping	The controlled placement of materials (e.g., sand, fill, gravel, or synthetic materials) to physically isolate contaminated sediments from the overlying aquatic environment.
	capture zone	The volume of aquifer from which groundwater is retrieved and/or contained by pumping a well or network of wells.
	carbon absorber	An add-on control device that uses activated carbon to absorb volatile organic compounds from a gas stream. The VOCs are later recovered from the carbon.
	carbon adsorption	A treatment system that removes contaminants from groundwater or surface water by forcing it through tanks containing activated carbon treated to attract the contaminants.
	carcinogen	1) Any substance that can cause, aggravate, or contribute to the production of cancer. 2) A chemical classification for the purpose of risk assessment based on the weight of evidence for human carcinogenicity

Acronym	Glossary	Definition
		according to USEPA 1986 Guidelines for Risk Assessment, in which carcinogens are summarized as follows: Group A: Human carcinogen: Sufficient evidence from human epidemiological studies. Group B: Probable Human Carcinogen: B1: Limited evidence from human epidemiological studies. B2: Sufficient evidence from animal studies and inadequate or no data from human epidemiological studies. Group C: Possible Human Carcinogen: Limited evidence of carcinogenicity from animal studies in the absence of human data.
	carcinogenic	Causing or producing cancer.
	carrying capacity	1) In recreation management, the amount of use a recreation area can sustain without loss of quality. 2) In wildlife management, the maximum number of animals an area can support during a given period.
	case study	A detailed account of the cost and effort involved in using a technology or process.
	casing	Pipe used in water well construction generally extending from the land surface to the top of the well screen. The type and size of casing used will vary depending on well yield and other design requirements.
	catabolism	The process whereby energy is extracted from organic compounds by breaking them down into their component parts.
	catalysis/reaction	A remedial technology in which a surfactant or co-solvent solution is exposed to materials which cause the reactive destruction of volatile, semi-volatile, non-volatile contaminants, yielding innocuous reaction products.
	catalyst	An inorganic substance that changes the speed, yield, or required temperature of a chemical reaction without being consumed or chemically changed by the chemical reaction.
	catalytic oxidation	A process that uses an inorganic substance to lower the temperature required to destroy gas phase compounds.
	catalyzed decomposition	The process of breaking a reactant into its constituent parts using a compound that causes an increase in the rate of decomposition.
	catadromous	Fish that swim downstream to spawn.
	cathodic protection	A technique to prevent corrosion of a metal surface by making it the cathode of an electrochemical cell.
	cation	A positively charged atom or group of atoms
	cation exchange capacity	A quantitative measure of surface charge of a cation, reported in equivalents of exchangeable ions per unit weight of the solid.
	cells	1) In solid waste disposal, holes where waste is dumped, compacted, and covered with layers of dirt on a daily basis. 2) The smallest structural part of living matter capable of functioning as an independent unit.
	characteristic	Any one of the four categories used in defining hazardous waste: ignitability, corrosivity, reactivity, and toxicity.

Acronym	Glossary	Definition
	characterization	Facility or site sampling, monitoring and analysis activities to determine the extent and nature of a release. Characterization provides the basis for acquiring the necessary technical information to develop, screen, analyze, and select appropriate cleanup techniques.
	chelate	A coordination complex in which more than one atom or molecule (often an organic compound) binds to a metal. In the environment, chelation effectively removes the metal: it is no longer available for chemical interactions or to biota. See Complexation.
	chelation	Formation of compound by inactivating a metallic ion and making it part of the ring.
	chemical analysis	The process of determining the amount of individual compounds in a mixture.
	chemical binder	A compound that produces or promotes cohesion in loosely assembled substances.
	Chemical Fingerprinting	The chemical analysis of contaminants and associated chemicals intended to provide source-specific information on the contaminants; a component of most environmental forensic studies.
	chemical leaching	The process of using a compound to enhance the dissolution of soluble components from solid materials.
	chemical oxidation	A process that involves adding a compound (oxidant) to increase the oxidation state of reactants.
	chemical partitioning	The preferential separation of a chemical into different media or states. For example, many metals are more likely to partition to sediments than to remain in groundwater.
	chemical reaction	The transformation of reactants into products that involves the breaking of intermolecular bonds.
	chemical reducing agents	Compounds that cause a decrease in the oxidation state of reactants.
	chemical remediation	The use of compounds to recover or transform unwanted chemicals in the environment.
	chemical resistance	The ability of chemical protective clothing to maintain its integrity and protection qualities when it comes into contact with a hazardous material.
	chemical stress	The result of a chemical reaction of two or more materials. Examples include corrosive materials attacking a metal, the pressure or heat generated by the decomposition or polymerization of a substance, or any variety of corrosive actions.
	chemical testing	The use of instruments and procedures to determine the identity of compounds in mixtures.
	chemical treatment	Any one of a variety of technologies that use chemicals or a variety of chemical processes to treat waste.
	chlorinated	Any compound that contains at least one chlorine atom.
	chlorinated compounds	The grouping or classification of compounds that contain at least one chlorine atom.
	chlorinated hydrocarbons	These include a class of persistent, broad-spectrum organic compounds that linger in the environment and

Acronym	Glossary	Definition
		accumulate in the food chain. Among them are the insecticides DDT, aldrin, dieldrin, heptachlor, chlordane, lindane, endrin, mirex, hexachloride, and toxaphene. Other examples include tetrachloroethene, trichloroethene, carbon tetrachloride, and trichloromethane, used as industrial solvents.
	chlorinated organic compounds	Compounds that contain carbon and chlorine atoms.
	chlorinated solvent	An organic hydrocarbon in which chlorine atoms substitute for one or more hydrogen atoms in the compound's structure, e.g., methylene chloride and 1,1,1-trichloromethane. Commonly used in aerosol spray containers, in highway paint, for grease removal in manufacturing, dry cleaning, and other operations. The substituted chlorine makes the compound less flammable than the nonsubstituted equivalent, but more toxic.
	chlorination	The application of chlorine to drinking water, sewage, or industrial waste to disinfect or to oxidize undesirable compounds.
	chronic effect	An adverse effect on a human or animal in which symptoms recur frequently or develop slowly over a long period of time.
	chronic exposure	Multiple exposures occurring over an extended period of time, or a significant fraction of an animal's or human's lifetime.
	chronic toxicity	The capacity of a substance to cause long-term poisonous human health effects. See Acute Toxicity.
	circle of influence	The circular outer edge of the depression produced in the water table by pumping water from a well. See Cone of Influence, Cone of Depression.
	circulating well	A device installed into the water saturated subsurface that causes groundwater to flow in a circular pattern.
	cis	In a chiral (directional) organic compound, the prefix cis indicates that the substituted atoms are on the same side of the compound. For example, in cis 1,2-Dichloroethene, the chlorine atoms are on the same side of the carbon to carbon double bond. The presence or absence of cis or trans compounds can indicate whether biological activity or abiotic, chemical reactions have taken place in the environment. See trans.
	clarification	Clearing action that occurs during water treatment when solids settle out. This is often aided by centrifugal action and chemically induced coagulation.
	clarifier	A tank in which solids settle to the bottom and are subsequently removed as sludge.
	clastic rock	A consolidated sedimentary rock composed of broken fragments that are derived from pre-existing rocks, e.g. sandstone, conglomerate, shale, etc.
	clay	1) Natural material with plastic (flowing) properties; 2) A composition of particles of very fine size grades; and 3) A composition of crystalline fragments of hydrous-aluminum silicate or hydrous-magnesium silicate minerals.

Acronym	Glossary	Definition
	clay soil	Soil material containing more than 40 percent clay, less than 45 percent sand, and less than 40 percent silt.
	cleanup	Actions taken to deal with a release or threat of release of a hazardous substance that could affect humans and/or the environment. The term "cleanup" is sometimes used interchangeably with the terms remedial action, removal action, response action, or corrective action.
	cleanup alternatives	The evaluation of management techniques or technologies to control or remove unwanted compounds from the environment.
	cleanup costs	The time and cost incurred to implement controls or complete the removal of unwanted compounds from the environment.
	cleanup level	The residual concentration of a hazardous substance in a medium that is determined to be protective of human health and the environment under specified exposure conditions.
	cleanup technology	A technology that is the whole or part of a treatment train to cleanup hazardous waste sites.
	climate	The average course or condition of the weather at a place as exhibited by temperature, wind velocity, and precipitation.
	climatology	The science that deals with the climate and climatic phenomena.
	closeout	Conducted when DON considers no further response actions under the IR Program to be appropriate for the site and when site cleanup confirms that no significant threat to public health or the environment exists. The Navy forwards closeout documentation to the regulators for concurrence.
	closure	The regulatory process of deactivating, stabilizing and or decontaminating waste management units or facilities under RCRA.
	Closure Plan	Documentation prepared to guide the deactivation, stabilization and surveillance of a waste management unit or facility under RCRA.
	coagulation	Clumping of particles in water to settle out impurities, often induced by chemicals such as lime, alum, and iron salts.
	coastal plains	Any plain which has its margin on the shore of a large body of water, particularly the sea, and generally represents a strip of recently emerged sea floor.
	coastal zone	As defined by the NCP, all US waters subject to the tide, US waters of the Great Lakes, specified ports and harbors on inland rivers, waters of the contiguous zone, other waters of the high seas subject to the NCP, and the land surface or land substrata, groundwaters, and ambient air proximal to those waters. The term coastal zone delineates an area of federal responsibility for response action. Precise boundaries are determined by EPA/USCG agreements and identified in federal regional contingency plans.

Acronym	Glossary	Definition
	cofferdam	A watertight enclosure from which water is pumped to expose the bottom of a body of water and permit construction (as of a pier).
	cold environments	Environmental conditions where water is in a solid state (snow or ice).
	coliform bacteria	A group of bacteria considered a reliable indicator of the adequacy of treatment for bacterial pathogens.
	coliform index	A rating of the purity of water based on a count of fecal bacteria.
	coliform organism	Microorganisms found in the intestinal tract of humans and animals. Their presence in water indicates fecal pollution and potentially adverse contamination by pathogens.
	colloids	Very small, less than 1 μ m, finely divided solids (that do not dissolve) that remain dispersed in a liquid for a long time due to their small size and electrical charge.
	combustible	A term the NFPA, DOT, and others use to classify certain materials with low flash points that ignite easily. Both NFPA and DOT generally define combustible liquids as having a flash point of 100° F (38° C) or higher. The NFPA classifies nonliquid materials such as wood and paper as ordinary combustibles. OSHA defines combustible liquids within the Hazard Communication Law as any liquid with a flash point at or above 100° F (38° C) but below 200° F (93.3° C).
	combustion	1) Burning, or rapid oxidation, accompanied by release of energy in the form of heat, light, and/or sound. A basic cause of air pollution. 2) Refers to controlled burning of waste, in which heat chemically alters organic compounds, converting into stable compounds such as carbon dioxide and water.
	combustion chamber	The actual compartment where waste is burned in an incinerator.
	co-metabolic bioventing	The advantageous transformation of unwanted compounds during microbiologic metabolic activity stimulated by the injection of air into the subsurface.
	cometabolism	A reaction in which microbes transform a contaminant even though the contaminant cannot serve as an energy source for the organisms. To degrade the contaminant, the microbes require the presence of other compounds (primary substrates) that can support their growth.
	cometabolite	An enzyme produced by microbiological metabolism that aids in degradation of a contaminant.
	comment period	Time provided for the public to review and comment on a proposed action or rule making after publication in the Federal Register or as a document.
	commercial waste	All solid waste emanating from business establishments such as stores, markets, office buildings, restaurants, shopping centers, and theaters.
	commercial waste management facility	A treatment, storage, disposal, or transfer facility which accepts waste from a variety of sources, as compared to a private facility which normally manages a limited waste stream generated by its own operations.

Acronym	Glossary	Definition
	commingled plume	A mixture of chlorinated and non-chlorinated hydrocarbon compounds dissolved in groundwater.
	community	In ecology, a group of interacting populations in time and space. Sometimes, a particular subgrouping may be specified, such as the fish community in a lake or the soil arthropod community in a forest.
	community relations	The effort to establish two-way communication with the public to create understanding of Installation Restoration Program and related actions, to assure public input into decision-making processes related to affected communities, and to make certain that the Navy is aware of and responsive to public concerns. Specific community relations activities are required in relation to Superfund remedial actions. The term "public" includes citizens directly affected by the site, other interested citizens or parties, organized groups, elected officials, and potentially responsible parties.
	community reuse plan	The basis for the proposed action and alternatives addressed in the DoD Component's EIS or other NEPA analyses.
	community water system	In Virginia, as defined by the Virginia Department of Health, a water system serving at least 25 individuals or more than 15 residential connections.
	comparability	A qualitative measure of the confidence with which one data set can be compared to another. Sample data should be comparable with other measurement data for similar samples and sample conditions.
	completeness	A measure of the amount of valid data obtained from a measurement system compared to the amount that was expected to be obtained under routine operating conditions.
	complexation	Electrostatic association of positively charged metal ions and negatively charged organic matter, usually with two or more points of attachment. See Chelate.
	composite sample	A representative sample created by the homogenization of multiple samples from multiple sampling locations within the same general area. A composite sample is generally taken to indicate the average concentration in a particle media. For example, composite samples are often taken of soil to characterize it for disposal. Typically, only one sample is necessary for every 100 cubic yards. Therefore, several grab samples from each roll-off containing the soil may be homogenized to form the composite sample. Taken in this way, the composite will represent an average concentration of the chemicals of concern for the soil.
	compost	The relatively stable humus material that is produced from a composting process in which bacteria in soil mixed with garbage and degradable trash break down the mixture into organic fertilizer.
	composting	The controlled biological decomposition of organic material in the presence of air and water to form a humus-like material. Controlled methods of composting include mechanical mixing and aerating, ventilating the materials by dropping them through a vertical series of

Acronym	Glossary	Definition
		aerated chambers, or placing the compost in piles out in the open air and mixing it or turning it periodically.
	condensation	The conversion of compounds in the gas phase to a liquid or solid phase usually initiated by a reduction in temperature.
	conductance	A rapid method of estimating the dissolved-solids content of a water supply by determining the capacity of a water sample to carry an electrical current.
	conduction	The transmission of energy in the form of heat or electrical current through a material object.
	conductivity	A measure of the ability of a solution or material to carry an electrical current.
	cone of depression	A conelike depression of the water table (or of a potentiometric surface of a confined aquifer) that is created in the vicinity of a well by pumping. The surface area included in the cone is known as the area of influence of the well.
	cone of influence	The depression, roughly conical in shape, produced in the water table by the pumping of water from a well.
	cone penetrometer	This device consisting of a hollow steel rod that is pushed into the ground. Instrumentation installed in the steel rod records several parameters related to difficulty of insertion, formation pore pressure, and electrical resistivity. These data can be interpreted to obtain information about subsurface geology.
	confined aquifer	An aquifer in which groundwater is confined between two aquitards and is under pressure which is significantly greater than atmospheric pressure.
	confinement	Confinement techniques are the actions necessary to confine a hazardous material release to a limited area. These actions occur remote from the spill or leak site and are therefore defensive.
	confining unit	A stratigraphic unit which, because of low permeability relative to the units above or below, prevents or impedes upward or downward movement of water and pressure.
	confounding factors	An uncontrolled or uncontrollable variable that influences an experimental outcome.
	congener	Any of two compounds composed of the same elements in the same proportions but which have different properties because of different structures.
	conservation	Preserving and renewing, when possible, human and natural resources. The use, protection, and improvement of natural resources according to principles that will assure their highest economic or social benefits.
	consolidated	A rock that is firm and rigid in nature due to the natural interlocking and/or cementation of its mineral grain components. The reverse is unconsolidated.
	constructed wetlands	A constructed wetland is a designed and constructed complex of saturated substrates, emergent and submergent vegetation, animal life, and water that simulates natural wetlands for human use and benefits.

Acronym	Glossary	Definition
	construction and demolition waste	Waste building materials, dredging materials, tree stumps, and rubble resulting from construction, remodeling, repair, and demolition of homes, commercial buildings and other structures and pavements. May contain lead, asbestos, or other hazardous substances.
	consumptive use	Water removed from available supplies without return to a water resource system (uses such as manufacturing, agriculture, and food preparation.)
	containment	An act, process, or means of preventing the spread of unwanted compounds in the environment.
	containment technologies	Those technologies designed to prevent the further migration of contaminants. Can include reducing the mobility of contamination, construction of physical barriers to reduce the flow of water through contaminated media, or pumping to control the flow of contaminated groundwater.
	contaminant	1) Any physical, chemical, biological, or radiological substance or matter that has an adverse affect on air, water, or soil. 2) As defined by section 101(33) of CERCLA, shall include but not be limited to, any element, substance, compound or mixture, including disease-causing agents, which after release into the environment and upon exposure, ingestion, inhalation, or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will or may reasonably be anticipated to cause death, disease, behavioral abnormalities, cancer, genetic mutation, physiological malfunctions (including malfunctions in reproduction) or physical deformations, in such organisms or their offspring. Shall not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance and shall not include natural gas, liquified natural gas or synthetic gas of pipeline quality (or mixtures of natural gas and such synthetic gas). 3) For purposes of the NCP, the term pollutant or contaminant means any pollutant or contaminant that may present an imminent and substantial danger to public health or welfare.
	contaminant chemistry	The physical properties of unwanted compounds found in the environment.
	contaminant level monitoring	The process of determining the amount of unwanted compounds present over a period of time.
	contaminant mobility reduction	An act, process, or means of preventing the spread of unwanted compounds in the environment.
	contaminant removal	The act, process, or means of extracting unwanted chemicals from the environment.
	contaminant sampling	The act of collecting small quantities of gas, liquid, or solids from the environment to determine the amount of unwanted compound present.
	contaminated dredge spoils	Material containing unwanted compounds such as polychlorinated biphenyls that was removed from the bed of a body of water in order to increase its water carrying capacity or to allow for the passage of boats.

Acronym	Glossary	Definition
	contaminated plume	A visible or measurable discharge of an unwanted compound from a given point of origin, for example, a plume of smoke.
	contaminated sediment	Material located at the bottom of the body of water that contains unwanted compounds.
	contaminated site	Any property, including but not limited to structures, sediment, soil and water, that contains a contaminant resulting from a discharge or release.
	contaminated soil	Unconsolidated material in the top layer of the surface of the earth that contains unwanted compounds.
	contamination	Introduction into water, air and/or soil of microorganisms, chemicals, toxic substances, wastes, or wastewater in a concentration that makes the medium unfit for its next intended use. Also applies to surfaces of objects and buildings, and various household and agricultural use products.
	contiguous zone	A zone of the high seas, established by the U. S. under the Convention on the Territorial Sea and Contiguous Zone, that is in contact with or touching the territorial sea and that extends 9 nautical miles seaward from the outer limit of the territorial sea.
	continuing calibration	Analytical standard run every ten analytical samples or every two hours, whichever is more frequent, to verify the calibration of the analytical systems.
	contract	A legally enforceable binding agreement between two or more persons or parties regarding the supply of goods or services.
	control limits	A range within which specified measurement results must fall to be compliant. Control limits may be mandatory, requiring corrective action if exceeded, or advisory, requiring that noncompliant data be flagged.
	conventional pollutants	Statutorily listed pollutants understood well by scientists. These may be in the form of organic waste, sediment, acid, bacteria, viruses, nutrients, oil and grease, or heat.
	cooperation	Association of persons for common benefit.
	correspondence	Any official letters, memorandums, notes, telecommunications, and any other forms of addressed, written communications sent and received by the EFD/EFA or other sources. Internal Department of Navy drafts and related internal memorandum should not be included in the Administrative Record (AR) unless they contain information found nowhere else that is considered or relied upon in the CERCLA response action decision. Drafts that are circulated outside of DON for review (e.g., to regulators or the public) shall be included in the AR as well as the comments received by DON from those entities (and DON response to those comments).
	corrosion	The dissolution and wearing away of metal caused by a chemical reaction such as between water and pipes, chemicals touching a metal surface, or contact between two metals.
	corrosive	A chemical agent that reacts with the surface of a

Acronym	Glossary	Definition
		material causing it to deteriorate or wear away.
	corrosivity hazard	A material that causes visible destruction of or irreversible alterations to living tissue by chemical action at the point of contact.
	cosolvent effects	When more than one solvent is dissolved in aqueous solution, the solubility of each solvent can be increased due to the presence of other solvents.
	cost	The total spent for goods or services including money, time, and labor.
	cost and performance	A detailed account of the cost and ability of an environmental technology to meet stated performance goals.
	cost sharing	A publicly financed program through which society, as a beneficiary of environmental protection, shares part of the cost of pollution control with those who must actually install the controls. In Superfund, the government may pay part of the cost of a cleanup action with those responsible for the pollution paying the major share.
	cost estimate	The total spent for goods or services including money, time, and labor.
	cost estimating tools	A judgment or estimate regarding the total spent for goods or services including money, time, and labor.
	cost recovery	A legal process by which potentially responsible parties who contributed to contamination at a Superfund site can be required to reimburse the Superfund for money spent during any cleanup actions by the federal government.
	cost/benefit analysis	A quantitative evaluation of the costs which would be incurred versus the overall benefits to society of a proposed action such as the establishment of an acceptable dose of a toxic chemical.
	cost-effective alternative	An alternative control or corrective method identified after analysis as being the best available in terms of reliability, performance, and cost. Although costs are one important consideration, regulatory and compliance analysis does not require EPA to choose the least expensive alternative. For example, when selecting or approving a method for cleaning up a Superfund site the Agency balances costs with the long-term effectiveness of the methods proposed and the potential danger posed by the site.
	cover	To overspread the surface of (one thing) with another; as, to cover wood with paint or lacquer; to cover a table with a cloth.
	cover material	Soil used to cover compacted solid waste in a sanitary landfill.
	cracking	The process whereby heavy molecules of naphtha or petroleum are broken down into hydrocarbons of lower molecular weight (especially in the oil-refining process).
	cradle-to-grave or manifest system	A procedure in which hazardous materials are identified and tracked as they are produced, treated, transported, and disposed of by a series of permanent, linkable, descriptive documents (e.g., manifests).

Acronym	Glossary	Definition
	creosote	A distilled or blended product produced from the by-product(s) of manufactured gas plant operations and most commonly used in wood preservation.
	criteria	Descriptive factors taken into account by EPA in setting standards for various pollutants. These factors are used to determine limits on allowable concentration levels, and to limit the number of violations per year. When issued by EPA, the criteria provide guidance to the states on how to establish their standards.
	cross section	A diagram or drawing that shows features transected by a given plane, usually a vertical plane so that the view shows features through the depth of the earth.
	cultural resources	The physical remains of a people's way of life that archaeologists and historians study to try to interpret how people lived.
	cumulative exposure	The summation of exposures of an organism to a chemical over a period of time.
	cycloalkene	Unsaturated, monocyclic hydrocarbon with the formula C_nH_{2n-2} .

ERB Acronym and Glossary – D

Acronym	Glossary	Definition
D	data qualifiers - organic analysis - D	Identifies all compounds identified in an analysis at a secondary dilution factor. If a sample or extract is reanalyzed at a higher dilution factor, as in the E flag below, the DL suffix is appended to the sample number on Form I for the diluted sample, and all concentration values reported on that Form I are flagged with the D flag.
d13C	del C 13	The unit used to describe stable carbon isotope measurement.
dB	decibel	Unit of measurement used for sound intensity. Sometimes also used to express the strength of a signal.
DCA	Dichloroethane	fumigant and an extraction solvent whose properties are colorless, neutral, mobile, with an aromatic ethereal odor, saccharin taste, Soluble in alcohol, ether, fixed and volatile oils; very sparingly soluble in water. Toxic; TLV: 200 ppm in air.
DCE	Dichloroethene or Dichloroethylene	General solvent for organic materials, dye extraction, perfumes, lacquers, thermoplastics, organic synthesis; flammable, dangerous fire hazard, toxic by ingestion, inhalation, and skin contact; irritant and narcotic in high concentration.
DCP	Dichlorophenol	Derived by the chlorination of phenol. Toxic by ingestion, strong irritant to tissue. It is used for organic synthesis.
DD	Decision Document	Demonstrates that the response action chosen is consistent with, and meets the requirements of, CERCLA and the NCP; and documents Navy/Marine Corps decisions regarding response action selection. Equivalent to a Record of Decision for non-NPL sites.
DDD	Dichloro-Diphenyl-Dichloroethane (Rhothane)	Trade mark for an agricultural insecticide based on 1,1-bis(chlorophenyl)-2,2-dichloroethane and supplied as a wettable powder or emulsion concentrate.
DDE	Dichloro-Diphenyl-dichloro-Ethene	It is a degradation product of dichlorodiphenyltrichloroethane (DDT) found as an impurity in DDT residues.
DDT	Dichloro-Diphenyl-Trichloroethane	The first chlorinated hydrocarbon insecticide. It has a half-life of 15 years and can accumulate in fatty tissues of certain animals. EPA banned registration and interstate sale of DDT for virtually all but emergency uses in the United States in 1972 because of its persistence in the environment and accumulation in the food chain.
DEHNR	Department of Environment, Health and Natural Resources	The lead stewardship agency for the preservation and protection of natural resources. The organization administers regulatory programs designed to protect air quality, water quality, and the public's health. DENR works to protect fish, wildlife and wilderness areas.
DENIX	Defense Environmental Network and Information Exchange	A DoD-wide information exchange to facilitate and support communications and environmental awareness; consists of an integrated set of menus comprising a collection of application programs, databases, bulletin board forums, and UNIX utilities to complement other

Acronym	Glossary	Definition
		existing services available; provides access to a wide variety of information which can be downloaded to personal computers.
DER	Department of Environmental Resources	it's primary goal is to help protect, restore, and conserve the air, water, land and ecosystem resources.
DERA	Defense Environmental Restoration Account	DoD-established account to pay the cost of DoD expenses to clean up hazardous waste sites; DoD transfers DERA funds to the services for uses consistent with the DERP; the DoD counterpart of the Superfund Program regulated under CERCLA and SARA and RCRA Corrective Action.
DERP	Defense Environmental Restoration Program	Formally established by Congress in 10 USC 2701-2707 and 2810; provides centralized management for the cleanup of DoD hazardous waste sites consistent with the provisions of CERCLA as amended by SARA, the NCP, and E.O. 12580.
DERPMIS	Defense Env'l Restoration Program Management Information System	A DoD database used to track information on the status and progress of activities at sites in the DERP. It is used to support the Annual Report to Congress.
DFM	Diesel Fuel Marine	Used as marine diesel fuel.
đh	viscosity	The property of a fluid describing its resistance to flow. Also known as dynamic viscosity.
DL	Detection Limit	The minimum concentrations which must be accurately and precisely measured by the laboratory and/or specified in the quality assurance plan.
đmg/kg	micrograms/kilogram - equivalent to ppb	Expressing a concentration in units of micrograms/kilogram is equivalent to expressing the concentration in parts per billion by mass or weight.
đmg/L (đmg/l)	micrograms/liter - equivalent to ppb	Expressing a concentration in units of micrograms/liter is equivalent to expressing the concentration in parts per billion by volume.
DMM	Discarded Military Munitions	Military munitions that have been abandoned without proper disposal or removed from storage in a military magazine or other storage area for the purpose of disposal. The term does not include unexploded ordnance, military munitions that are being held for future use or planned disposal, or military munitions that have been properly disposed of, consistent with applicable environmental laws and regulations. (10 U.S.C. 2710(e)(2))
đmm	micron	A unit of length equal to one millionth (10 ⁻⁶) of a meter. Also called a micrometer.
DMR	Discharge Monitoring Report	is a quality assurance program. This program is intended for all major and selected minor permittees under the National Pollutant Discharge Elimination System (NPDES) program. The purpose is to evaluate the analytical and reporting ability of the laboratories routinely performing the inorganic chemistry and whole-effluent toxicity self-monitoring analyses required in NPDES permits.
DMSO	Dimethyl Sulfoxide	Used as a gas odorant, a solvent for many inorganic substances. It is flammable, a dangerous, fire risk, a

Acronym	Glossary	Definition
		moderate explosion risk. It is a colorless, volatile liquid with a disagreeable odor; soluble in alcohol and ether; insoluble in water/
DNAPL	Dense Non-Aqueous Phase Liquid	A liquid that does not dissolve in water, and so forms a separate phase from water, which is also denser than water and therefore sinks. Many chlorinated solvents are DNAPLs.
DNR	Department of Natural Resources	It's mission is to manage, protect and sustain natural and cultural resources; provide resource-compatible recreational opportunities; and promote natural resource-related public safety, education, and science.
DO	Dissolved Oxygen	The oxygen freely available in water, vital to fish and other aquatic life and for the prevention of odors. DO levels are considered a very important indicator of a water body's ability to support desirable aquatic life. Secondary and advanced waste treatment are generally designed to ensure adequate DO in waste-receiving waters.
DOC	Department of Commerce	The Department of Commerce and Labor was created by the Act of February 14 (32 Stat. 826; 5 U.S.C. 591) to promote the Nation's economic competitiveness.
DOC	Dissolved Organic Carbon	originates from leaching of the canopy and from incomplete decomposition of organic matter.
DoD	Department of Defense	
DOE	Department of Energy	It's overarching mission is to advance the national, economic, and energy security of the United States; to promote scientific and technological innovation in support of that mission; and to ensure the environmental cleanup of the national nuclear weapons complex.
DOIT	Demonstration of On-site Innovative Technologies	Committee that promotes interstate cooperation on innovative technologies
DOJ	Department of Justice	implements a justice system that is fair, accessible and efficient; assists the federal government to develop policy and to make and reform laws as needed.
DOL	Department of Labor	charged with preparing the American workforce for new and better jobs.
DON	Department of the Navy	The executive part of the Department of the Navy at the seat of government; the headquarters, US Marine Corps; the entire operating forces of the United States Navy and of the US Marine Corps, including the Reserve Components of such forces; all field activities, headquarters, forces, bases, installations, activities, and functions under the control or supervision of the Secretary of the Navy; and the US Coast Guard when operating as a part of the Navy pursuant to law. Also called DON. See also Military Department.
DOS	Department of State	supports the policy positions set forth in the National Security Strategy and presents how the Department will implement U.S. foreign policy and development assistance.
DOT	Department of Transportation	Oversees federal highway, air, railroad, and maritime and other transportation administration functions
DP	Direct Push	A drilling method by which a rod (hollow or solid) is driven or hammered into the ground (usually through

Acronym	Glossary	Definition
		hydraulic pressure).
DPM	Defense Priority Model	DoD prioritization models, site ranking models are meant to give priority to sites posing the greatest threat to human health. The DPM, not used after 1993, used a combination of quantitative and qualitative approximations to calculate pathway subscores combined to provide an overall site score from 0 to 100.
DQ(*)	Data Qualifiers - Duplicate analysis not within control limits.	Symbols added as a suffix to analytical results used to flag data. Indicates that a duplicate analysis not within control limits.
DQA	Data Quality Assessment	process is the scientific and statistical evaluation of data to determine whether the data are of the right type, quality, and quantity to support their intended use.
DQO	Data Quality Objective	Quantitative and qualitative statements specified to ensure that data of appropriate quantity and quality is collected during field activities to support specific decisions or regulatory actions.
DRMO	Defense Reutilization and Marketing Office	Facility to obtain US government surplus property.
DSERTS	Defense Site Environmental Restoration Tracking System	A computer based system used to track environmental restoration activities at active installations. The system is used to collect and maintain information about environmental remediation and provide reports that detail the information at the DoD Component level. Data gathered by DSERTS will be submitted to RMIS for DoD processing and will be used as the principal source of information for each DoD component in the Annual Report to Congress.
DSMOA	Defense/State Memorandum of Agreement	A grant program to support state participation in federal cleanups.
DSMOA	DoD/State Memorandum of Agreement	contractual arrangement between the DoD or the State to appropriate parties stipulating the terms and conditions under which specific work is performed; these terms and conditions include scope of work, period of performance, payments, etc.
DTSC	Department of Toxic Substances Control	protects California and Californians from exposures to hazardous wastes
DUS	Dynamic Underground Stripping	A combination of several technologies (steam injection, electrical heating, underground imaging) targeted to remediate soil and ground water contaminated with organic compounds.
DWS	Drinking Water Standard	Concentration limits for certain elements and pollutants that may occur in drinking water; established by the Safe Drinking Water Act.

ERB Glossary – D

Acronym	Glossary	Definition
	Dallas	The Naval Air Station located west of Dallas was closed in 1998 in accordance with the Base Realignment and Closure Commission of 1993.
	DARAMEND	DARAMEND is an advanced biological treatment

Acronym	Glossary	Definition
		technology for soil, sediment and solid wastes contaminated with recalcitrant organic compounds.
	data	Factual information, as measurements or statistics, used as a basis for reasoning, discussion, or calculation.
	data collection	The act of collecting factual information such as observations or output by sensing devices.
	data management	Protocols and procedures used to preserve, handle, and query collections of factual information.
	data qualifiers	Symbols added as a suffix to analytical results used to flag data: - Organic Analysis:
	data validation	A systematic effort to review data to identify any outliers or errors and thereby cause deletion or flagging of suspect values to assure the validity of the data to the user. This process may be done by manual or computer methods.
	database	A collection of factual information that are organized in a specified manner and that are accessed by designated personnel for designated purposes.
	daughter product	A compound that results directly from the biodegradation of another. For example, cis 1,2-Dichloroethene (cis 1,2-DCE) is commonly a daughter product of Trichloroethene (TCE).
	DCE/VC stall	The phenomenon during which reductive dechlorination of PCE or TCE stops at DCE or VC for a significant time period without proceeding to ethene.
	decay constant	A constant which expresses the probability that an atom or molecule of a chemical will decay in a given time interval.
	dechlorination	Removal of chlorine from a substance by chemically replacing it with hydrogen or hydroxide ions in order to detoxify the substance.
	decomposition	The breakdown of matter by bacteria and fungi, changing the chemical makeup and physical appearance of materials.
	decontamination	Removal of harmful substances from exposed individuals, rooms and furnishings in buildings, or the exterior environment.
	defense sites	Locations that are or were owned by, leased to, or otherwise possessed or used by the Department of Defense. The term does not include any operational range, operating storage or manufacturing facility, or facility that is used for or was permitted for the treatment or disposal of military munitions. (10 U.S.C. 2710(e)(1))
	degradation	1) The process by which a chemical is reduced to a less complex form. 2) The physical destruction or decomposition of a clothing material due to exposure to chemicals, use, or ambient conditions (i.e., storage in sunlight). Degradation is noted by visible signs such as charring, shrinking, dissolving, or by testing the clothing material for weight changes, loss of fabric tensile strength, etc. Important in assessing the continuing protection provided by protective clothing for hazardous waste operations.

Acronym	Glossary	Definition
	Dehalococcoides ethenogenes	The only bacterium currently known to be capable of complete reductive dechlorination of PCE or TCE to ethene in pure culture.
	dehydrohalogenation	Elimination of HX resulting in formation of an alkene.
	delegated state	A state (or other governmental entity such as a tribal government) that has received authority to administer an environmental regulatory program in lieu of a federal counterpart. As used in connection with NPDES, UIC, and UST programs, the term does not connote any transfer of federal authority to a state.
	delist	Use of the petition process to have a facility's status on the National Priorities List rescinded.
	density	A measure of how heavy a solid, liquid, or gas is for its size. Mathematically, it is the ratio of mass to volume of a material, usually in grams per cubic centimeter or pounds per gallon.
	dermal exposure	Contact between a chemical and the skin.
	dermal toxicity	The ability of a pesticide or toxic chemical to poison people or animals by contact with the skin.
	desiccant	A chemical agent that absorbs moisture; some desiccants are capable of drying out plants or insects, causing death.
	design capacity	The average daily flow that a treatment plant or other facility is designed to accommodate.
	designated uses	Those water uses identified in state water quality standards that must be achieved and maintained as required under the Clean Water Act. Uses can include cold water fisheries, public water supply, irrigation, etc.
	designer bugs	Popular term for microbes developed through biotechnology that can degrade specific toxic chemicals at their source in toxic waste dumps or in groundwater.
	desorption	The release of chemicals attached to solid surfaces. Antonym - Sorption.
	detention time	1) The theoretical calculated time required for a small amount of water to pass through a tank at a given rate of flow. 2) The actual time that a small amount of water is in a settling basin, flocculating basin, or rapid-mix chamber. 3) In storage reservoirs, the length of time water will be held before being used.
	detergent	Synthetic washing agent that helps remove dirt and oil. Some contain compounds which kill useful bacteria and encourage algae growth when they are in wastewater that reaches receiving waters.
	development effects	Adverse effects such as altered growth, structural abnormality, functional deficiency, or death observed in a developing organism.
	dewater	1) Remove or separate a portion of the water in a sludge or slurry to dry the sludge so it can be handled and disposed. 2) Remove or drain the water from a tank or trench.
	diagenesis	The chemical and physical changes occurring in sediments before consolidation or while in the environment of deposition.

Acronym	Glossary	Definition
	diatoms	Cellular or colonial photosynthetic protists most often in marine environments. They are very small in size and are components of plankton, a major food source at the bottom of the marine food chain.
	Diazinon	An insecticide. In 1986, EPA banned its use on open areas such as sod farms and golf courses because it posed a danger to migratory birds. The ban did not apply to agricultural, home lawn or commercial establishment uses.
	Dibenzofurans	A group of highly toxic organic compounds.
	Dicofol	A pesticide used on citrus fruits.
	diffused air	A type of aeration that forces oxygen into sewage by pumping air through perforated pipes inside a holding tank.
	diffusion	The movement of a chemical, suspended, or dissolved particle from a more concentrated to a less concentrated area. The process tends to distribute the chemical or particles more uniformly.
	diffusivity	A measurement of the movement of a molecule in a liquid or gas medium as a result of differences in concentration. It is used to calculate the rate of volatilization of a pure substance from a surface or in estimating a Henry's Law constant for chemicals with low water solubility. The higher the diffusivity, the more likely a chemical is to move in response to concentration gradients.
	digestion	The biochemical decomposition of organic matter, resulting in partial gasification, liquefaction, and mineralization of pollutants.
	dike	A low wall that can act as a barrier to prevent a spill from spreading.
	diluent	Any liquid or solid material used to dilute or carry an active ingredient.
	dilution ratio	The relationship between the volume of water in a stream and the volume of incoming water. It affects the ability of the stream to assimilate waste.
	Dinocap	A fungicide used primarily by apple growers to control summer diseases. EPA proposed restrictions on its use in 1986 when laboratory tests found it caused birth defects in rabbits.
	Dinoflagellates	Flagellated, photosynthetic, marine protists. They are very small in size and are components of plankton, a major food source at the bottom of the marine food chain.
	Dinoseb	An herbicide that is also used as a fungicide and insecticide. It was banned by EPA in 1986 because it posed the risk of birth defects and sterility.
	Dioxane	Dioxane is commonly used as a stabilizer for of trichloroethane and is present in trichloroethane in small amounts. Dioxane is hydrophilic and is not removed by activated charcoal.
	Dioxin	A family of compounds known chemically as dibenzo-p-dioxins. Concern about them arises from their potential

Acronym	Glossary	Definition
		toxicity and contaminants in commercial products. Tests on laboratory animals indicate that it is one of the more toxic man-made compounds.
	dip tank	Generally metal or concrete units that range in size from 50 to 500 gallons or more. The tanks are used to clean parts prior to treatment or to coat parts with various materials including metals and plastics.
	direct exposure pathway	An exposure pathway where the point of exposure is at the source, without a release to any other medium.
	direct filtration	A method of treating water which consists of the addition of coagulant chemicals, flash mixing, coagulation, minimal flocculation, and filtration. Sedimentation is not used.
	direct runoff	Water that flows over the ground surface or through the ground directly into streams, rivers, and lakes.
	direct-push drilling	A drilling method by which a rod (hollow or solid) is driven or hammered into the ground (usually through hydraulic pressure).
	direct-reading instruments	Provide information at the time of sampling. They are used to detect and monitor flammable or explosive atmospheres, oxygen deficiency, certain gases and vapors, ionizing radiation, and free product.
	discharge	1) Flow of surface water in a stream or canal or the outflow of groundwater from a flowing artesian well, ditch, or spring. 2) Discharge of liquid effluent from a facility or of chemical emissions into the air through designated venting mechanisms. 3) As defined by section 311 (a)(2) of the CWA, includes but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying or dumping of oil, but excludes discharges in compliance with a permit under section 402 of the CWA, discharges resulting from circumstances identified and reviewed and made a part of the public record with respect to a permit issued or modified under section 402 of the CWA, and subject to a condition in such permit, or continuous or anticipated intermittent discharges from a point source, identified in a permit or permit application under section 402 of the CWA, that are caused by events occurring within the scope of relevant operating or treatment systems. 4) For purposes of the NCP, discharge also means threat of discharge.
	disinfectant	A chemical or physical process that kills pathogenic organisms in water. Chlorine is often used to disinfect sewage treatment effluent, water supplies, wells, and swimming pools.
	dispersant	A chemical agent used to break up concentrations of organic material such as spilled oil.
	dispersion	Hydrodynamic dispersion; the process whereby a contaminant dissolved in groundwater spreads out in the direction coincident to and perpendicular to groundwater flow, causing the contaminant to become diluted; the sum of the effects of mechanical mixing and molecular diffusion on a dissolved contaminant that results in dilution of the contaminant. The mixing results

Acronym	Glossary	Definition
		from differences in flow path length and velocity for different molecules.
	dispersivity	A property that quantifies dispersion in a medium.
	disposables	Consumer products, other items, and packaging used once or a few times and discarded.
	disposal	Final placement or destruction of toxic, radioactive, or other wastes; surplus or banned pesticides or other chemicals; polluted soils; and drums containing hazardous materials from removal actions or accidental releases. Disposal may be accomplished through use of approved secure landfills, surface impoundments, land farming, deep-well injection, ocean dumping, or incineration.
	Disposition	What must be done with a document throughout its lifecycle.
	dissolved metals	Analyte elements which have not been digested prior to analysis and which will pass through a 0.45 μ m filter.
	dissolved solids	Disintegrated organic and inorganic material in water. Excessive amounts make water unfit to drink or use in industrial processes. Generally noticeable in concentrations greater than 500 mg/L.
	distillation	The act of purifying liquids through boiling, so that the steam condenses to a pure liquid and the pollutants remain in a concentrated residue.
	diversion	1) Use of part of a stream flow as a water supply. 2) A channel with a supporting ridge on the lower side constructed across a slope to divert water at a non-erosive velocity to sites where it can be used or disposed of. 3) Controlled movement of a hazardous material to an area where it will produce less harm.
	diversion rate	The percentage of waste materials diverted from traditional disposal such as landfilling or incineration to be recycled, composted, or re-used.
	DoD Priority Categories	Priorities for DERP funding determined on the basis of relative risk (site priorities) and a hierarchy of site actions (action priorities) within each site priority.
	DoD Work Groups	Representatives from various areas participate in DoD Work Groups to clarify policy criteria used to determine the non-contractible or contractible nature of positions within DoD organizations. The Joint Environmental Surveillance Working Group (JESWG) is a DoD Work Group as well as the Joint Weapon systems Technical Architecture Working Group (JWSTA WG).
	DON Policy	Generally DON Policy is defined in OPNAVINST issued from the Chief of Naval Operations
	dosage/dose	The actual quantity of a chemical administered to an organism or to which it is exposed.
	dose response	How a biological organism's response to a toxic substance quantitatively shifts as its overall exposure to the substance changes (e.g., a small dose of carbon monoxide may cause drowsiness; a large dose can be fatal.)
	dose-response assessment	Estimating the potency of a chemical.

Acronym	Glossary	Definition
	dose-response relationship	The quantitative relationship between the amount of exposure to a substance and the extent of toxic injury or disease produced.
	DOT Reportable Quantity	The quantity of a substance specified in US Department of Transportation regulations that trigger labeling, packaging and other requirements related to shipping such substances.
	downgradient	The direction that groundwater flows; similar to "downstream" for surface water.
	draft permit	A preliminary permit drafted and published by EPA; subject to public review and comment before final action on the application.
	drainage basin	The area of land that drains water, sediment, and dissolved materials to a common outlet at some point along a stream channel.
	drawdown	1) The drop in the water table when water is being pumped from a well. It is the vertical distance between the static and the pumping levels of the wells. 2) The amount of water used from a tank or reservoir. 3) The drop in the water level of a tank or reservoir.
	dredging	Removal of mud/sediment from the bottom of water bodies. This can disturb the ecosystem and causes silting that kills aquatic life. Dredging of contaminated muds can expose biota to heavy metals and other toxic compounds. Dredging activities may be subject to regulation under Section 404 of the Clean Water Act.
	drillers log	The drillers record of material drilled through in the process of drilling a well.
	Drinking Water Equivalent Level	Protective level of exposure related to potentially non-carcinogenic effects of chemicals that are also known to cause cancer.
	drinking water supply	As defined by section 101(7) of CERCLA, any raw or finished water source that is or may be used by a public water system as defined in the Safe Drinking Water Act, or as drinking water by one or more individuals.
	dry weight	The weight of a sample based on percent solids. The weight after drying in an oven.
	dump	A site used to dispose of solid waste without environmental controls.
	duplicate	Identical splits of individual samples which are analyzed by the laboratory to test for method reproducibility. Samples may be split in the laboratory.

ERB Acronym and Glossary – E

Acronym	Glossary	Definition
E	data qualifiers - metals analysis - E	The reported value is estimated because of the presence of interference. An explanatory note must be included with the results.
E	data qualifiers - organic analysis - E	Identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. This flag will not apply to pesticides/PCBs analyzed by GC/EC methods. If one or more compounds have a response greater than full scale, the sample or extract must be diluted and reanalyzed. If the dilution of the extract causes any compounds identified in the first analysis to be below the calibration range in the second analysis, then the results of both analyses shall be reported.
E/P	Evaporation/Percolation	The process by which any substance is converted from a liquid state into, and carried off in, vapor; as, the evaporation of water, of ether, of camphor. Percolation; the filtration of a liquid for extraction or purification.
EA	Environmental Assessment	An environmental analysis prepared pursuant to the National Environmental Policy Act to determine whether a federal action would significantly affect the environment and thus require a more detailed environmental impact statement.
EBSL	Environmental Baseline Survey for Lease	An evaluation of the environmental suitability of a parcel for lease or transfer.
EBSL/EBST	Environmental Baseline Survey for Lease/Transfer	An evaluation of the environmental suitability of a parcel for lease or transfer.
EBST	Environmental Baseline Survey for Transfer	An evaluation of the environmental suitability of a parcel for lease or transfer.
EC	Effective Concentration	The concentration of a chemical substance effective in producing a specific result such as increase in oxygen consumption, paralysis, death, etc.
ECE	Environmental Compliance Evaluation	program provides a means to monitor, achieve, and maintain compliance with major federal, state, and local regulations. ECEs are conducted at all shore facilities at least every three years.
EDB	Ethylene Dibromide	A chemical used as an agricultural fumigant and in certain industrial processes. Extremely toxic and found to be a carcinogen in laboratory animals, EDB has been banned for most agricultural uses in the United States.
EDD	Enforcement Decision Document	A document that provides an explanation to the public of EPA's selection of the cleanup alternative at enforcement sites on the National Priorities List. Similar to a Record of Decision.
EDXRF	Energy Dispersive X-Ray Fluorescence	A technique of chemical analysis. The technique involves aiming an X-ray beam at the surface of an object. The interaction of X-rays with an object causes secondary (fluorescent) X-rays to be generated. Each element present in the object produces X-rays with different energies. These X-rays can be detected and displayed as a spectrum of intensity against energy: the positions of the peaks identify which elements are

Acronym	Glossary	Definition
		present and the peak heights identify how much of each element is present.
EE	Engineering Evaluation	An official document that evaluates feasible and cost-effective alternatives for proposed removal actions, and recommends a specific removal action.
EE/CA	Engineering Evaluation/Cost Analysis	An official document that evaluates feasible and cost-effective alternatives for proposed removal actions, and recommends a specific removal action.
Eh	Redox Potential	A measure of the relative tendency of groundwater to accept or transfer electrons (volts).
EIS	Environmental Impact Statement	A document required of federal agencies by the National Environmental Policy Act for major projects or legislative proposals significantly affecting the environment. A tool for decision making, it describes the positive and negative effects of the undertaking and cites alternative actions.
EL	Exposure Level	The amount (concentration) of a chemical at the absorptive surfaces of an organism.
ELCR	Excess Lifetime Cancer Risk	The chance of contracting cancer over a human's lifetime due to exposure to site chemicals. U.S. EPA has developed a risk management range of 10 ⁻⁴ (1 in 10,000) to 10 ⁻⁶ (1 in a million) as the target for managing risk.
ELISA	Enzyme-Linked Immunosorbent Assay	A highly sensitive technique for detecting and measuring antigens or antibodies in a solution; the solution is run over a surface to which immobilized antibodies specific to the substance have been attached, and if the substance is present, it will bind to the antibody layer, and its presence is verified and visualized with an application of antibodies that have been tagged in some way.
EM	electromagnetic	The nature of the energy transmitted by radio waves, microwaves, infra-red, visible light, x-rays and gamma rays.
EMAP	Environmental Monitoring and Assessment Program	A research program to develop the tools necessary to monitor and assess the status and trends of national ecological resources.
EMAP	Environmental Monitoring and Assessment Program data	Environmental monitoring data collected under the auspices of the Environmental Monitoring and Assessment Program. All EMAP data share the common attribute of being of known quality, having been collected in the context of explicit data quality objectives (DQOs) and a consistent quality assurance program.
EMSL	Environmental Monitoring System Laboratory	quality control of environmental radiological measurements.

Acronym	Glossary	Definition
Endrin	Endrin	A pesticide toxic to freshwater and marine aquatic life that produces adverse health effects in domestic water supplies.
ENRP	Environmental and Natural Resources Program	develops Navy policies and procedures for managing environmental and natural resource programs. This is consistent with all applicable statutes, Executive Orders (EOs), DoD directives and DON instructions.
EO	Executive Order	a rule or regulation having the force of law promulgated directly by the President under his statutory authority.
EO	Explosive Ordnance	All munitions containing explosives, nuclear fission or fusion materials, and biological and chemical agents. This includes bombs and warheads; guided and ballistic missiles; artillery, mortar, rocket, and small arms ammunition; all mines, torpedoes, and depth charges; demolition charges; pyrotechnics; clusters and dispensers; cartridge and propellant actuated devices; electro-explosive devices; clandestine and improvised explosive devices; and all similar or related items or components explosive in nature.
EP	Evaporation, Percolation	The process by which any substance is converted from a liquid state into, and carried off in, vapor; as, the evaporation of water, of ether, of camphor. Percolation; the filtration of a liquid for extraction or purification.
EP	Extraction Procedure	Determining toxicity by a procedure which simulates leaching; if a certain concentration of a toxic substance can be leached from a waste, that waste is considered hazardous, i.e., "EP Toxic." Replaced by the TCLP.
EPA	Environmental Protection Agency	Established in 1970 by Presidential Executive Order, bringing together parts of various government agencies involved with control of pollution.
EPA ID	EPA identification number	The unique code assigned to each generator, transporter, and treatment, storage, or disposal facility by the USEPA to facilitate identification and tracking of chemicals or hazardous waste.
EPCRA	Emergency Planning and Community Right-to-Know Act	Commonly known as SARA Title III. Its purpose is to encourage and support emergency planning efforts at the State and local levels and provide the public and local governments with information concerning potential chemical hazards present in their communities.
EPIC	Environmental Photographic Interpretation Center	is a field station of the Landscape Ecology Branch (LEB), Environmental Sciences Division - Las Vegas (ESD-LV), National Exposure Research Laboratory (NERL), Office of Research and Development (ORD).
EPTC	Extraction Procedure Toxicity Characteristic	Refer to 40 CFR 261.24.
EQ	Environmental Quality	development of environmental policies and initiatives.
EQ Strategic Plan	Tri Service Environmental Quality Research and Development Strategic Plan	A tri-service program used to track cleanup RDT&E efforts within the services and to address any new needs for specific RDT&E development.
ER	Environmental Restoration	Cleanup and restoration of sites contaminated with hazardous substances during past production or disposal activities.
ER, N	Environmental Restoration, Navy	The Navy established support funds for oversight of the IR Program. These support funds are intended to assist

Acronym	Glossary	Definition
		Installations in meeting oversight requirements. Replaced DERA Funding
ERA	Ecological Risk Assessment	The application of a formal framework, analytical process, or model to estimate the effects of human actions(s) on a natural resource and to interpret the significance of those effects in light of the uncertainties identified in each component of the assessment process. Such analysis includes initial hazard identification, exposure and dose response assessments, and risk characterization.
ER-L	Effects Range-Low	In aquatic systems, concentrations of contaminants that below which adverse biological effects would rarely occur. Concentrations of contaminants between the ER-L and the ER-M represent that adverse effects would occasionally occur.
ER-M	Effects Range-Median	In aquatic systems, concentrations of contaminants that above which adverse biological effects would probably occur.
ERP	Emergency Response Plan	Detailed outline with links of national plan to respond to disasters
ERT	Emergency Response Team	Individuals tasked to take action and ameliorate the consequences of an emergency situation.
ERTAT	Ecological Risk Technical Assistance Team	Provides trouble shooting assistance in the area of ecological risk assessments and monitoring. The team provides guidance on the Navy tiered approach as well as with ecological risk problem formulation and site conceptual model development.
ESA	Endangered Species Act	provides a program for the conservation of threatened and endangered plants and animals and the habitats in which they are found.
ESC	Endangered Species Council	established to protect wildlife in danger of extinction
ESI	Expanded Site Inspection	The objective of this ESI was to gather the information and data necessary to determine whether there is sufficient evidence of any release of contamination that would require additional investigation.
ESTCP	Environmental Security Technology Certification Program	A corporate Department of Defense (DoD) program that promotes innovative, cost-effective environmental technologies through demonstration and validation at DoD sites.
ETIC	Environmental Technology Implementation Contract	ETIC complements the Remedial Action Contracts (RACs) in place at the NAVFAC Engineering Field Divisions and Activities by providing technical assistance for, and easing the implementation of, innovative technologies. The contract services are available to the Navy and Marine Corps and other government agencies.
eV	electron Volts	Unit of measurement used for very small amounts of energy especially when distributed amongst a great many small particles such as photons, electrons, neutrons, etc.
EW	extraction well	A well specifically designed for removing groundwater and/or soil vapor.
EZ	Exclusion Zone	The area surrounding an operation which may be immediately dangerous to life and health. Requires

Acronym	Glossary	Definition
		complete, appropriate protective clothing and equipment. Entry requires approval by the Site Superintendent or a designated sector officer. Complete back-up and rescue teams must be in place at the perimeter before operations begin.
EZVI	emulsified zero-valent iron	Microscale (10-6 m diameter) or nanoscale (10-9 m diameter) zero-valent iron particles in water surrounded by an oil-liquid membrane (food-grade surfactant, biodegradable vegetable oil). EZVI can be used to improve DNAPL degradation by enhancing contact between DNAPL and ZVI particles.

ERB Glossary – E

Acronym	Glossary	Definition
	ecological assessment	A qualitative and/or quantitative appraisal of the actual or potential effects of chemical(s) of concern on plants and animals other than people and domestic species.
	ecological impact	The effect that a man-made or natural activity has on living organisms and their non-living (abiotic) environment.
	ecological indicator	A characteristic of the environment that, when measured, quantifies magnitude of stress, habitat characteristics, degree of exposure to a stressor, or ecological response to exposure. The term is collective for response, exposure, habitat, and stressor indicators.
	ecology	The relationship of living things to one another and their environment, or the study of such relationships.
	ecosphere	The "bio-bubble" that contains life on earth, in surface waters, and in the air. See Biosphere.
	ecosystem	The interacting system of a biological community and its non-living environmental surroundings.
	ecosystem structure	Attributes related to instantaneous physical state of an ecosystem; examples include species population density, species richness or evenness, and standing crop biomass.
	ecotone	1) A habitat created by the juxtaposition of distinctly different habitats; an edge habitat. 2) An ecological zone or boundary where two or more ecosystems meet.
	ecotoxicity	The study of toxic effects on nonhuman organisms, populations, and communities.
	EET TechXtract _z Technology Evaluation	TechXtract contaminant extraction technology was developed by EET, Inc. TechXtract technology is designed to remove polychlorinated biphenyls (PCBs), heavy metals or radionuclides from the surface and subsurface of porous and nonporous solid materials such as concrete, brick, asphalt, wood, nickel and steel.
	effluent	Wastewater, treated or untreated, that flows out of a treatment plant, sewer, or industrial outfall. Generally refers to wastes discharged into surface waters.
	electric log	The log of a well or borehole obtained by lowering electrodes in the hole and measuring various electrical

Acronym	Glossary	Definition
		properties of the geologic formations traversed.
	electrical resistance heating	A remediation method in which electrodes are placed in the ground and an electric current is applied to the target zone (i.e., contaminated soil mass) in order to remove, vaporize, and/or collect and treat volatile and semi volatile contaminants.
	electron	A negatively charged subatomic particle that may be transferred between chemical species in chemical reactions. Every chemical molecule contains electrons and protons (positively charged particles).
	electron acceptor	Relatively oxidized compounds which gain electrons from electron donors during cellular respiration and oxidation-reduction reactions, resulting in the release of energy to the cell and the reduction of the electron acceptor. Microorganisms obtain energy by transferring electrons from electron donors such as organic compounds (or sometimes reduced inorganic compounds such as sulfide) to an electron acceptor. Electron acceptors are compounds that are relatively oxidized and include oxygen, nitrate, iron (III), manganese (IV), sulfate, carbon dioxide, or in some cases the chlorinated aliphatic hydrocarbons such as tetrachloroethene (PCE), trichloroethene (TCE), dichloroethene (DCE) and vinyl chloride (VC).
	electron capture detector	A common detector found on gas chromatographs that relies upon ⁶³ Ni ionization changes to detect eluting compounds. Most sensitive for chlorine-, bromine-, and nitrogen-containing chemicals.
	electron donor	Organic carbon, or reduced inorganic compounds, which give electrons to electron acceptors during cellular respiration and oxidation-reduction reactions, resulting in the release of energy to the cell, and the oxidation of the electron donor. Electron donors are relatively reduced and include fuel hydrocarbons, less chlorinated solvents like vinyl chloride, and native organic carbon.
	electrophile	A reactive species that accepts an electron pair.
	elimination	Chemical reaction where two groups such as chlorine and hydrogen are lost from adjacent carbon atoms and a double bond is formed in their place.
	emergency (chemical)	A situation created by an accidental release or spill of hazardous chemicals that poses a threat to the safety of workers, residents, the environment, or property.
	emerging technology	A technology in the developmental stage (pilot-scale testing, bench-scale study) of production.
	emission	Pollution discharged into the atmosphere from smokestacks, other vents, and surface areas of commercial or industrial facilities; from residential chimneys; and from motor vehicle, locomotive, or aircraft exhausts.
	endangered species	Animals, birds, fish, plants, or other living organisms threatened with extinction by man-made or natural changes in their environment. Requirements for declaring a species endangered are contained in the

Acronym	Glossary	Definition
		Endangered Species Act.
	endangerment assessment	A study to determine the nature and extent of contamination at a site on the National Priorities List and the risks posed to public health or the environment. EPA or the state conduct the study when a legal action is to be taken to direct potentially responsible parties to clean up a site or pay for it. An endangerment assessment supplements a remedial investigation.
	endpoints	Observable or measurable biological or chemical events used as an index of the effect of a chemical on a cell, tissue, organ, organism, etc.
	energy recovery	Obtaining energy from waste through a variety of processes (e.g., combustion.)
	enforceable requirements	Conditions or limitations in permits issued under the Clean Water Act, Section 402 or 404 that, if violated, could result in the issuance of a compliance order or initiation of a civil or criminal action under federal or applicable state laws. If a permit has not been issued, the term includes any requirement which, in the Regional Administrator's judgment, would be included in the permit when issued. Where no permit applies, the term includes any requirement which the Regional Administrator determines is necessary for the best practical waste treatment technology to meet applicable criteria.
	enforcement	EPA, state, or local legal actions to obtain compliance with environmental laws, rules, regulations, or agreements and/or obtain penalties or criminal sanctions for violations. Enforcement procedures may vary, depending on the requirements of different environmental laws and related implementing regulations. Under CERCLA, for example, EPA will seek to require potentially responsible parties to clean up a Superfund site, or pay for the cleanup, whereas under the Clean Air Act the agency may invoke sanctions against cities failing to meet ambient air quality standards that could prevent certain types of construction or federal funding. In other situations, if investigations by EPA and state agencies uncover willful violations, criminal trials and penalties are sought.
	engineering controls	Modifications to a site or facility (for example, slurry walls, capping, and point of use water treatment) to reduce or eliminate the potential for exposure to a chemical(s) of concern.
	enhanced bioremediation	An engineered remediation option that is designed to supply factors that are required for rapid biodegradation of a compound.
	enrichment	The addition of nutrients (e.g., nitrogen, phosphorus, carbon compounds) from sewage effluent or agricultural runoff to surface water, greatly increases the growth potential for algae and other aquatic plants. However, too much can be harmful.
	entrain	To trap chemicals and particles in water either mechanically through turbulence or chemically through a reaction.

Acronym	Glossary	Definition
	environment	1) As defined by section 101(8) of CERCLA, includes the navigable waters, the waters of the contiguous zone, and the ocean waters of which the natural resources are under the exclusive management authority of the U.S., and any other surface water, groundwater, drinking water supply, land surface or subsurface strata, ambient air, or fish, wildlife or biota within the U.S. or under jurisdiction of the U.S. 2) The sum of all external conditions affecting the life, development and survival of an organism.
	environmental audit	An independent assessment of the current status of a party's compliance with applicable environmental requirements or of a party's environmental compliance policies, practices, and controls.
	environmental contamination	The release of hazardous substances, or the potential release of a discarded hazardous substance, in a quantity which is, or may become, injurious to the environment, or the public health, safety or welfare.
	environmental equity	Equal protection from environmental hazards of individuals, groups or communities regardless of race, ethnicity, or economic status.
	environmental exposure	Human exposure to pollutants originating from facility emissions. Threshold levels are not necessarily surpassed, but low level chronic pollutant exposure is one of the most common forms of environmental exposure. See Threshold Level.
	Environmental Forensics	A systematic investigation of a contaminated site(s) or event(s) focused on defensibly identifying the source(s) and allocating liability for contamination. Components include chemical fingerprinting, historical research, numerical/statistical analysis, modeling, etc.
	environmental indicator	A measurement, statistic or value that provides a proximate gauge or evidence of the effects of environmental management programs or of the state or condition of the environment.
	environmental justice	The fair treatment of all races, cultures, incomes, and educational levels with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment implies that no population of people should be forced to shoulder a disproportionate share of the negative environmental impacts of pollution or environmental hazards due to a lack of political or economic strength.
	environmental risk	The potential or likelihood of injury, disease, or death resulting from human exposure to a potential environmental threat.
	enzyme	Biologically produced, protein-based catalyst.
	ephemeral	Lasting a short time, transitory.
	epidemiology	Study of the distribution of disease, or other health-related states and events in human populations, as related to age, sex, occupation, ethnic, and economic status in order to identify and alleviate health problems and promote better health.
	epoxidation	A reaction wherein an oxygen molecule is inserted in a

Acronym	Glossary	Definition
		carbon-carbon double bond and an epoxide is formed.
	equilibrium	A condition that exists in a system when the phases of the system do not undergo any change of properties with the passage of time; the state in which the action of multiple forces produces a steady balance, resulting in no change overall, over time.
	equilibrium concentration	The concentration of a substance at which its mass per unit volume or per unit mass within and between any adjacent phases is at steady state. A factor used in determining Henry's law constant.
	equilibrium species	1) Species whose population exists in equilibrium with resources and at a stable density. 2) A species that has a life history characterized by long life, long development time to reach maturity, low death rates, and few reproductive cycles per year.
	equipment rinsate	The final analyte-free water rinse from equipment cleaning collected daily during a sampling event.
	equipotential	Equal potential (energy).
	equipotential lines	Lines of equal potential (energy). Water flows from areas of higher potential towards areas of lower potential.
	equivalent method	Any method of sampling and analyzing for chemicals which has been demonstrated to the EPA Administrator's satisfaction to be, under specific conditions, an acceptable alternative to normally used reference methods.
	erosion	The wearing away of land surface by wind or water, intensified by land-clearing practices related to farming, residential or industrial development, road building, or logging.
	estuary	1) A semi-enclosed coastal body of water that has a free connection with the open sea and within which seawater is measurably diluted with fresh water from land drainage. 2) Regions of interaction between rivers and near-shore ocean waters, where tidal action and river flow mix fresh and salt water. Such areas include bays, mouths of rivers, salt marshes, and lagoons. These brackish water ecosystems shelter and feed marine life, birds, and wildlife. See Wetlands.
	ethanol	An alcohol used as an alternative automotive fuel derived from grain and corn; usually blended with gasoline to form gasohol.
	evacuation	A prolonged precautionary stay away from an area affected by a hazardous material.
	evapotranspiration	The process by which surface water, soils, and plants release water vapor to the atmosphere through evaporation and transpiration.
	ex situ	Refers to a technology or process for which contaminated material must be removed from the site of contamination for treatment. For example, soil must be excavated or groundwater must be pumped to an above ground treatment system. Antonym - In Situ.
	exceedence	Violation of the pollutant levels permitted by

Acronym	Glossary	Definition
		environmental protection standards.
	exchange capacity	A quantitative measure of the surface charge of a substance, reported in equivalents of exchangeable ions per unit weight of the solid.
	exempt solvent	Specific organic compounds not subject to requirements of regulation because they are deemed by EPA to be of negligible photochemical reactivity.
	exempted aquifer	Underground bodies of water defined in the Underground Injection Control program as aquifers that are potential sources of drinking water though not being used as such, and thus exempted from regulations barring underground injection activities.
	exemption	A state with primacy may relieve a public water system from a requirement respecting an MCL, treatment technique, or both by granting an exemption if the system cannot comply due to compelling economic or other factors, the system was in operation on the effective date of the requirement or MCL, and the exemption will not create an unreasonable public health risk. See Variance.
	exit strategy	An approach developed to facilitate effective operation and optimization of a treatment system, as well as define when the remedial action should be considered complete.
	exogenous	1) Derived or developed from external causes or locations. 2) For bioremediation, microorganisms from other locations, whose effectiveness has been tested and added to a site for remediation.
	exotic species	A species that is not indigenous to a region.
	expanding plume	The situation where a groundwater plume is continuing to move outward or downgradient from the source area.
	explosive limits	The amounts of vapor in the air that form explosive mixtures; limits are expressed as lower and upper limits and give the range of vapor concentrations in air that will explode if an ignition source is present. The limits differ depending on the chemical vapor present.
	exposure	Contact of an organism with a chemical or physical agent. Exposure is quantified as the amount of the agent available at the exchange boundaries of the organism (e.g., skin, lungs or gut) and available for absorption.
	exposure assessment	The determination or estimation (qualitative or quantitative) of the method, magnitude, frequency, duration, and route of exposure.
	exposure event	An incident of contact with a chemical or physical agent. An exposure event can be defined by time (e.g., day, hour) or by the incident (e.g., eating a single meal of contaminated fish).
	exposure incident	A specific eye, mouth, other mucous membrane, non-intact skin, or parental contact with blood or other potentially infectious materials.
	exposure indicator	A characteristic of the environment measured to provide evidence of the occurrence or magnitude of a response

Acronym	Glossary	Definition
		indicator's exposure to a chemical or biological stress.
	exposure pathway	The course a chemical or physical agent takes from a source to an exposed organism. An exposure pathway describes a unique mechanism by which an individual or population is exposed to chemicals or physical agents at, or originating from, a site. Each exposure pathway includes a source or release from a source, an exposure point, and an exposure route. If the exposure point differs from the source, a transport/exposure medium (e.g., air) or media (in cases of intermedia transfer) also is included.
	exposure point	A location of potential contact between an organism and a chemical or physical agent.
	exposure route	The manner in which a chemical or physical agent comes in contact with an organism (i.e., by ingestion, inhalation, or dermal contact).
	extractable	A compound that can be partitioned into an organic solvent from the sample matrix and is amenable to gas chromatography. Extractables include semivolatile (BNA) and pesticide/PCB compounds.
	extraction	The act of obtaining from a substance by chemical or mechanical action, as by pressure or distillation.
	extremely hazardous substances	Any of 406 chemicals identified by EPA as toxic, and listed under SARA Title III. The list is subject to periodic revision.

ERB Acronym and Glossary – F

Acronym	Glossary	Definition
F	data qualifiers - method (analytical) qualifier - F	Furnace AA.
F	Fahrenheit	Of or relating to a temperature scale that registers the freezing point of water as 32° and the boiling point as 212° at one atmosphere of pressure.
F	Fluorine	The lightest of the halogens that can substitute for hydrogen in many organic compounds. The resulting compounds are generally less flammable but more toxic and persistent in the environment.
F&G	funnel and gate	A type of configuration for permeable reactive barriers that includes flanking impermeable walls to aid in directing or funneling groundwater flow toward a permeable gate.
FAR	Federal Acquisition Regulation	established for the codification and publication of uniform policies and procedures for acquisition by all executive agencies.
FC	Fluorocarbon	Any of a number of organic compounds analogous to hydrocarbons in which one or more hydrogen atoms are replaced by fluorine. Once used in the United States as a propellant for domestic aerosols, they are now found mainly in coolants and some industrial processes. FCs containing chlorine are called chlorofluorocarbons (CFCs). They are believed to be modifying the ozone layer in the stratosphere, thereby allowing more harmful solar radiation to reach the Earth's surface.
Fe	Iron	A malleable metal that is the fourth most abundant by weight of the elements that compose the earth's crust. It is naturally very abundant in the environment. Mobility of iron in water depends on its oxidation state, whether it is in the reduced form (II) or oxidized form (III). Iron (II) is generally more mobile in waters void of dissolved oxygen. Iron (III) is generally insoluble but can exist in natural organometallic or humic compounds and colloidal forms. The presence or lack of dissolved oxygen has little affect on iron (III), and this form of iron has little effect on aquatic life. The majority of iron is likely to settle and partition to bottom sediments. It can be transported great distances adsorbed to sediments however. Iron in soil has low mobility potential. Iron is an essential nutrient to humans.
FEC	Facilities Engineering Command	
FEMA	Federal Emergency Management Agency	tasked with responding to, planning for, recovering from and mitigating against disasters.
FFA	Federal Facilities Agreement	Intended to establish roles and responsibilities and to improve communication between all parties by allowing EPA and the state to review all work in support of remedy selection; at an NPL site, the FFA outlines the working relationship between states, EPA, and the Navy. The FFA is a legal agreement governing the CERCLA and RCRA administrative process for cleanup. An FFA will become an Interagency Agreement (IAG) when the statutory requirements are incorporated after

Acronym	Glossary	Definition
		the Record of Decision (ROD).
FFA	Federal Facility Agreement	a negotiated legal agreement between the Navy and EPA governing the CERCLA and RCRA administrative process for cleanup at NPL sites. The provision of this agreement are factors in setting project execution priorities through risk management, and are tools for formalizing commitments making selection of remedial action less adversarial. States may participate at their discretion.
FFCA	Federal Facilities Compliance Act	initiates administrative enforcement actions against the Federal government in the same manner and under the same circumstances as actions would be initiated against any other person.
FFS	Focused Feasibility Study	generates data to enable the selection of appropriate response action for identified site contamination via Phase I and Phase II investigations that characterize the property and its actual or potential hazard to public health, welfare, and the environment; providing the adequate data to assess the possible response actions.
FFSRA	Federal Facility State Remediation Agreement	a negotiated non-regulatory legal agreement governing the CERCLA and RCRA administrative process for cleanup at non-NPL sites. As with FFAs, provisions of FFSRAs are factors in setting project execution priorities through risk management, and are tools for formalization commitments making selection of remedial action less adversarial.
FID	Flame Ionization Device/Detector	A common detector found on gas chromatographs that burns the eluting compounds to form detectable, positively charged ions that can be measured electronically. Most sensitive for hydrocarbons.
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act	to provide federal control of pesticide distribution, sale, and use.
FISC	Fleet and Industrial Support Center	located in San Diego; the center will offer full logistics support, supply training, and material processing.
FIT	Field Investigation Team	investigates questions concerning the Occurrence, Fate and Transport of the chemical of concern or event.
FLP	Flash Point	The minimum temperature at which a liquid gives off enough vapors that will ignite and flash-over but will not continue to burn without the addition of more heat.
FML	Flexible Membrane Liner	a liner used in a hazardous waste landfill to prevent hazardous waste to leach into the ground; typically made of high-density polyethylene.
FNSI	Finding of No Significant Impact	A document prepared by a federal agency showing why a proposed action would not have a significant impact on the environment and thus would not require preparation of an Environmental Impact Statement. A FNSI is based on the results of an environmental assessment.
FOIA	Freedom of Information Act	a requirement to disclose records requested in writing by any person. However, agencies may withhold information pursuant to nine exemptions and three exclusions contained in the statute. The FOIA applies only to federal agencies and does not create a right of access to records held by Congress, the courts, or by

Acronym	Glossary	Definition
		state or local government agencies. Each state has its own public access laws that should be consulted for access to state and local records.
FORTRAN	Formula Translation (Computer Language)	computer language was developed in the late 1950's for scientific programming.
FOSL	Finding of Suitability for Lease	Documents that the EBSL/EBST has determined that the subject property is suitable for lease or transfer by deed for the intended purposes.
FOST	Finding of Suitability for Transfer	Documents that the EBSL/EBST has determined that the subject property is suitable for lease or transfer by deed for the intended purposes.
FPD	Flame Photometric Detector	An instrument that analyzes the spectrum of light emitted by the compounds as they luminesce in the flames. It is similar to the FID in that the sample exits the analytical column into a hydrogen diffusion flame, however, the FID measures ions produced by organic compounds during combustion rather than analyzing the emitted light spectrum.
FR	Federal Register	A daily publication that acts as the official notice board for Presidential and federal agency documents. It contains documents of general applicability and legal effect (e.g. meeting notices and agency requests for information); documents required to be published by statute or regulation (proposed rules, final rules); and certain Presidential documents (e.g. proclamations and executive orders). Documents published in the FR as codified regulations keep the CFR current. These documents make changes to the corresponding CFR volumes.
FRTR	Federal Remediation Technology Roundtable	The FRTR works to build a collaborative atmosphere among federal agencies involved in hazardous waste site cleanup. FRTR was established in 1990 to bring together top federal cleanup program managers and other remediation community representatives to share information and learn about technology-related efforts of mutual interest; discuss future directions of the national site remediation programs and their impact on the technology market; interact with similar state and private industry technology development programs; and form partnerships to pursue subjects of mutual interest.
FS	Feasibility Study	Based on data collected during the remedial investigations, options for final cleanup actions or remediation are developed and evaluated. The most feasible option that satisfies the applicable or relevant and appropriate requirements for mitigating confirmed environmental contamination is then recommended. The FS is divided into two phases - initial screening of alternatives, and detailed analysis of alternatives. The detailed analysis considers the following nine criteria required by the NCP: 1) Overall Protection of Human Health and the Environment, 2) Compliance with ARARs, 3) Long-Term Effectiveness and Permanence; 4) Reduction of Toxicity, Mobility, and Volume Through Treatment, 5) Short-Term Effectiveness, 6) Implementability, 7) Cost, 8) Community Acceptance, and 9) State Acceptance.

Acronym	Glossary	Definition
FSP	Field Sampling Plan	which describes the number, type, and location of samples and the type of analyses.
ft	feet or foot	Unit of measurement used for distance where one foot would be equal to 0.305 meter.
FUDS	Formerly Used Defense Sites	The FUDS process parallels the IR Program process phases, but the program structure is different. FUDS has two major components: inventory and remediation. In the inventory phase, projects are investigated to determine if the site is eligible. The remediation phase includes all of the components of the IR Program. The FUDS Program is implemented by the Army Corps of Engineers.
FWPCA	Federal Water Pollution Control Act (CWA)	objective: is to "restore and maintain the chemical, physical and biological integrity of the Nation's waters" (CWA § 101). This is to be accomplished by controlling the discharge of pollutants through technology-based effluent limits and effluent standards; developing pretreatment standards for discharges to publicly owned treatment works (POTW); implementing the National Pollutant Discharge Elimination System (NPDES) permitting program; developing water quality-based standards; and creating a special program to address the discharge of certain toxic substances and substances of special concern, such as oil. The Clean Water Act also creates a construction loan program for publicly owned treatment works (POTWs), addresses ocean dumping of wastes, and protects wetlands through dredge and fill regulations implemented by the Army Corps of Engineers.
FWQC	Federal Water Quality Criteria	shall regulate toxic substances in the surface waters of the State at the levels; as established by the United States Environmental Protection Agency pursuant to the Federal Water Pollution Control Act, Public Law 92-500, Section 304(a).
FWS	US Fish and Wildlife Service	One of the Bureaus of the Department of Interior, its mission is to conserve, protect and enhance fish, wildlife, and plants and their habitats for the continuing benefit of America.
FY	Fiscal Year	A company's business year, usually a 12-month accounting period which does not necessarily correspond to the calendar year.
FYDP	Future Year Defense Plan	projected funding objectives.

ERB Glossary – F

Acronym	Glossary	Definition
	facility	As defined by CERCLA, any building, structure, installation, pipe or pipeline, well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling stock, or aircraft; or any site or area where hazardous substances have been deposited, stored, disposed of, placed, or otherwise come to be located.

Acronym	Glossary	Definition
	facultative	A microbial trait enabling aerobic or anaerobic respiration, depending on environment.
	facultative anaerobes	Microorganisms that use and prefer oxygen when it is available, but can also use alternate electron acceptors such as nitrate under anaerobic conditions when necessary.
	fail level	Maximum concentration level for a contaminant of concern in soil gas or groundwater or soil matrix that yields a risk below the acceptable risk level (i.e., any higher and it fails the risk calculation). Often equivalent to a PRG or RBSL.
	falling head test	A type of Slug Test where a solid or known volume of water is quickly added to an aquifer so that the falling head (water level in the well) can be monitored to determine the hydraulic conductivity.
	fast track cleanup	An approach to the cleanup of contamination at closing bases or sites where the transfer of property is required quickly. Parcels with contamination below cleanup levels will be identified quickly and made available for transfer.
	fecal coliform bacteria	Bacteria found in the intestinal tracts of mammals. Their presence in water or sludge is an indicator of pollution and possible contamination by pathogens.
	Federal Agency Hazardous Waste Compliance Docket	Established by Congress under SARA to identify Federal facilities that must be evaluated for potential inclusion on the NPL and compile and maintain information on the cleanup status of these sites.
	Fenton's Reagent	A solution of hydrogen peroxide, metallic salts, ferric iron and sulfuric acid discovered by H. J. Fenton in 1894.
	fermentation	Microbial metabolism in which a particular compound is used both as an electron donor and an electron acceptor resulting in the production of oxidized and reduced daughter products.
	ferrous iron	Iron in the 2+ valence state (Fe ²⁺).
	field blank	Blanks are collected and analyzed to determine the level of contamination introduced into the sample due to sampling technique. They may consist of the source water used in decontamination and steam cleaning. At minimum, one sample from each event and each source of water must be collected and analyzed.
	field duplicate/split	1) Samples that have been divided into two or more portions while in the field. Each portion is then carried through the remaining steps in the measurement process. A sample may be duplicated in the field or at different points in the analytical process. For field duplicated samples, precision information would be gained on homogeneity, handling, shipping, storage, preparation, and analysis. 2) Duplicate samples divided into two parts and sent to different laboratories and subjected to the same environmental conditions and steps in the measurement process to test the labs.
	filling	Depositing dirt, mud, or other materials into aquatic areas to create more dry land, usually for agricultural or

Acronym	Glossary	Definition
		commercial development purposes, often with ruinous ecological consequences.
	filter pack	Granular material placed in the annulus of a borehole surrounding a well to increase the hydraulic connection between the well screen and surrounding formation materials and to prevent or minimize the entry of fine-grained materials into the well.
	filter strip	Strip or area of vegetation used for removing sediment, organic matter, and other pollutants from runoff and waste water.
	filtration	A treatment process, under the control of qualified operators, for removing solid (particulate) matter from water by means of porous media such as sand or a man-made filter; often used to remove particles containing pathogens.
	final action	Those removal actions that achieve the final cleanup objectives, considering long-term effectiveness and permanence, for the particular site, media, or operable unit. Except for O & M and possibly a five-year review, final actions require no additional study or action after the final actions are complete.
	financial assurance for closure	Documentation or proof that an owner or operator of a facility such as a landfill or other waste repository is capable of paying the projected costs of closing the facility and monitoring it afterwards as provided in RCRA regulations.
	fingerprinting (chemical)	The chemical analysis of contaminants and associated chemicals intended to provide source-specific information on the contaminants; a component of most environmental forensic studies.
	first draw	The water that comes out when a tap is first opened, likely to have the highest level of lead contamination from plumbing materials.
	first order reaction	A chemical reaction in which an increase (or decrease) in reactant concentration results in a proportional increase (or decrease) in the rate of the reaction.
	Five Year Plan	The Department of the Navy's Environmental Restoration Plan, or Five Year Plan, as it is commonly called, is published annually and details the Department of the Navy's accomplishments and plans for completion of the environmental cleanup program for sites contaminated by past disposal practices. It contains information on the Environmental Restoration cleanup program, statistics and funding levels, success stories and detailed statistics for each Navy and Marine Corps base being cleaned up under the program.
	five year review	A mandatory CERCLA review to determine whether remedial action is protective or will be protective when complete, to evaluate performance of a remedial action, to identify deficiencies, if any, and to recommend corrective actions.
	fix, sample	A sample is "fixed" in the field by adding chemicals that prevent water quality indicators of interest in the sample from changing before laboratory measurements are

Acronym	Glossary	Definition
		made.
	Fixed-Price Contract	Fixed-price types of contracts provide for a firm price or, in appropriate cases, an adjustable price. Fixed-price contracts providing for an adjustable price may include a ceiling price, a target price (including target cost), or both. Unless otherwise specified in the contract, the ceiling price or target price is subject to adjustment only by operation of contract clauses providing for equitable adjustment or other revision of the contract price under stated circumstances.
	flammable	Describes any solid, liquid, vapor, or gas that ignites easily and burns rapidly.
	flammable liquid	A liquid that gives off vapors readily ignitable at room temperature. Defined by the NFPA and DOT as a liquid with a flash point below 100° F (38° C).
	flocculation	Process by which clumps of solids in water or sewage aggregate through biological or chemical action so they can be separated from water or sewage.
	floodplain	The flat or nearly flat land along a river or stream or in a tidal area that is covered by water during a flood.
	flow rate	The rate at which a fluid escapes from a unit area. Such measurements are made of liquid waste, effluent, and surface water movement.
	flowing well	A well having sufficient artesian pressure head to discharge water above the land surface.
	flowmeter	A gauge indicating the velocity of wastewater moving through a treatment plant, or of any liquid moving through various industrial processes.
	fluorescence	Emission of electromagnetic radiation, esp. of visible light, resulting from the absorption of incident radiation and persisting only as long as the stimulating radiation is continued.
	fluoride	A general reference to compounds containing fluorine. Presence of about 1.0 mg/L is beneficial for reduction of dental cavities. Concentrations greater than 1.8 mg/L may cause mottling of teeth.
	flush	1) To open a cold-water tap to clear out all the water which may have been sitting for a long time in the pipes. In new homes, to flush a system means to send large volumes of water gushing through the unused pipes to remove loose particles of solder and flux. 2) To force large amounts of water or other liquid to clean out piping or tubing, storage or process tanks.
	fluvial/deltaic	Pertaining to rivers, streams, ponds, or river deltas.
	flux	A flowing or flow. For example, the flow of water through a pumping well can be called the flux.
	fly ash	Non-combustible residual particles expelled by flue gas.
	focus area	an area of focus
	food chain	A sequence of organisms, each of which uses the next, lower member of the sequence as a food source.
	formation	A unit of geologic mapping consisting of an identifiable

Acronym	Glossary	Definition
		rock material that also has lateral or vertical continuity.
	Fort Polk	Fort Polk is a U.S. Army base located in west-central Louisiana
	fossil fuel	Fuel derived from ancient organic remains, e.g., peat, coal, crude oil, and natural gas.
	fracture	Generally any break in a rock, whether or not it causes displacement, due to mechanical failure by stress; includes cracks, joints and faults.
	free product	Organic contaminant existing as a separate liquid phase.
	free product recovery	Removal of nonaqueous-phase liquid from the saturated zone through various methods such as pumping or bailing
	free radical	Free radicals are short-lived, highly reactive entities formed by the splitting of a molecular bond.
	freeboard	1) Vertical distance from the normal water surface to the top of the confining wall. 2) The vertical distance from the sand surface to the underside of a trough in a sand filter.
	free-phase liquid	Immiscible liquid existing in the subsurface under positive pressure. Free-phase liquid can flow into a well under the influence of gravity and can be mobilized by hydraulic forces.
	French drain	A remediation process that is designed to cut off groundwater migration by using a constructed high-permeability zone to capture contaminated groundwater for later extraction and treatment and/or disposal.
	fresh water	Water that generally contains less than 1,000 mg/L of dissolved solids.
	friable	Capable of being crumbled, pulverized, or reduced to powder by hand pressure.
	fuel efficiency	The proportion of the energy released on combustion of a fuel that is converted into useful energy.
	fully penetrating well	A well in which the screened length is equal to the saturated thickness of the aquifer.
	fungi	(Singular: Fungus) Molds, mildews, yeasts, mushrooms, and puffballs, a group of organisms lacking in chlorophyll (i.e., are not photosynthetic) and which are usually non-mobile, filamentous, and multicellular. Some grow in soil, others attach themselves to decaying trees and other plants whence they obtain nutrients. Some are pathogens, others stabilize sewage and digest composted waste.
	furan	Any of a family of compounds known chemically as furans. They are chemicals formed during combustion. They are extremely toxic.
	future liability	Refers to potentially responsible parties' obligations to pay for additional response activities beyond those specified in the Record of Decision or Consent Decree.

ERB Acronym and Glossary – G

Acronym	Glossary	Definition
GAC	Granular Activated Carbon	A filtering system often used in small water systems and individual homes to remove organics. GAC can be highly effective in removing elevated levels of radon from water.
GAO	General Accounting Office	Accounting and auditing office of the United States government. An independent agency that reviews federal financial transactions and reports directly to Congress.
GC	Gas Chromatography	the separation of a mixture of compounds (solutes) into separate components, which then can be analyzed by a mass spectrometer to yield detailed empirical molecular information regarding the chemistry of the samples.
GC/MS	Gas Chromatography/Mass Spectrometry	Highly sophisticated instrument that identifies the molecular composition and concentrations of various chemicals in water and soil samples.
GIS	Geographic Information System	A computer system designed for storing, manipulating, analyzing, and displaying data in a geographic context.
GLC	Gas Liquid Chromatography	a liquid is supported by a base of solid material for the separation of the mixture of gases.
GMP	Groundwater Monitoring Plan	Groundwater monitoring plan normally involves a network of monitoring or observation wells or micro wells and indicates the procedures and necessary documentation involved.
GOCO	Government Owned/Contractor Operated	facility is a manufacturing plant that is owned by the Government and operated under contract by a non-government, private firm.
gpd	gallons per day	Unit of measurement used for small liquid flow rate. Generally the flow rate on most showerheads is 2.5 gallons per minute or 3600 gallons per day.
gpm	gallons per minute	Unit of measurement used for liquid flow rate. Generally the flow rate on most showerheads is 2.5 gallons per minute.
GPR	Ground Penetrating Radar	A geophysical technology that uses radio waves to detect buried objects and the internal structure of landforms. Ground swell: (1) Long high swell in deep water. (2) Also, this swell as if rises to prominent height in shoal water.
Gr°	standard Gibbs free energy	The energy associated with a chemical reaction at standard state conditions \that can be used to do work. The free energy of a system is the sum of its enthalpy plus the product of the temperature and the entropy of the system.
GSA	General Services Administration	An agency whose purpose is to "help federal agencies better serve the public by offering, at best value, superior workplaces, expert solutions, acquisition services and management policies." The GSA organization consists of the Federal Supply Service, the Federal Technology Service, the Public Buildings Service, the Office of Government wide Policy, and various Staff Offices, including the Office of Small Business Utilization, the Office of Citizen Services and Communications, and the Office of Civil Rights.

Acronym	Glossary	Definition
GTS	Geostatistical Temporal-Spatial Algorithm	A long term monitoring network optimization technique that uses a geostatistical method known as "kriging" to optimize sampling frequency and define the network of essential sampling locations.
GW	groundwater	The supply of fresh water found beneath the Earth's surface in the interstices between soil grains, in fractures, or in porous formations. Because groundwater is a major source of drinking water, there is growing concern over contamination from leaching agricultural or industrial pollutants or leaking underground storage tanks.
GWM	Groundwater Monitoring	The process of measuring the physical and/or chemical properties of groundwater on a periodic basis. Concentrations of contaminants are frequently monitored to determine if they are increasing, decreasing, or remaining in the same range. Monitoring is also performed at and in the vicinity of water supply sources to determine the quality and trends of indicators of water quality.
GWPS	Groundwater Protection Standard	means the concentration of a specified constituent, statistically calculated, which is achievable with a 95% (percent) confidence level, or greater.
GWTP	Groundwater Treatment Plant	A facility wherein a treatment process removes suspended solids from the groundwater, destroys the contaminants in the groundwater, and prevents airborne emissions of contaminants from entering the atmosphere. Prior to discharge from the GWTP, treated water is monitored to ensure that it meets discharge limits.

ERB Glossary – G

Acronym	Glossary	Definition
	galvanic corrosion	Corrosion associated with the current of a galvanic cell consisting of two dissimilar conductors in an electrolyte or two similar conductors in dissimilar electrolytes; where the two dissimilar metals are in contact, the resulting reaction is referred to as couple reaction.
	game fish	Species like trout, salmon, or bass, caught for sport. Many of them show more sensitivity to environmental change than "rough" fish.
	gamma ray log	A method of logging wells or boreholes by observing the natural radioactivity of rocks through which the hole passes.
	gas chromatogram	A "fingerprint" of a mixture of chemicals showing peaks and bumps attributable to resolved and unresolved compounds, respectively.
	generator	1) A facility or mobile source that emits pollutants into the air or releases hazardous waste into water or soil. 2) Any person whose act or process produces regulated medical waste or whose act first causes such waste to become subject to regulation. In a case where more than one person (e.g., doctors with separate medical

Acronym	Glossary	Definition
		practices) is located in the same building, each business entity is a separate generator.
	geological log	A detailed description of all underground features (depth, thickness, type of formations) discovered during the drilling of a well.
	geophysical log	Methods of logging by lowering a sensing device into a well to make a record which can be interpreted in terms of the rock's characteristics, the contained fluids, and of the construction of the well.
	geophysics	Study of the physical properties of the earth's crust and subsurface
	Geoprobe	A vehicle-mounted, hydraulically-powered, soil probing device that utilizes static force and percussion to advance small diameter sampling tools into the subsurface for collecting soil core, soil gas, or groundwater samples. A registered trademark of Kejr Engineering, Inc., Salina, Kansas.
	georeferenced	Able to be located relative to the earth (property of a spatial data item).
	geospatial	Term used to describe a class of data that has geographic or spatial nature.
	geostatistics	The application of .statistical theory and practice to geologic phenomena or to any type of spatial data.
	Gosner stages	A numerical charting system for measuring the maturation of frogs, based on K.I. Gosner's anuran embryo staging tables.
	grab sample	A single sample collected at a particular time and place that represents the composition of the media only at that time and place.
	graded	An engineering term pertaining to the variation of sizes in soil or an unconsolidated sediment; a soil consisting of particles of several or many sizes or having a uniform or equable distribution of particles from coarse to fine. Well graded materials have many sizes, whereas poorly graded materials are more uniform in size.
	gravel pack	Gravel placed around the outside of the well screen to increase the effective diameter of the well and therefore the well efficiency.
	ground cover	Plants grown to keep soil from eroding.
	groundwater discharge	Groundwater entering near coastal waters which has been contaminated by landfill leachate, deep well injection of hazardous wastes, septic tanks, etc.
	groundwater flow	The movement of water through openings in sediment and rock that occurs in the zone of saturation.
	groundwater flow velocity	A measure of the direction and speed of Groundwater Flow.
	groundwater remediation	Treatment of groundwater to remove pollutants.
	Guam	Guam is a island in the Western Pacific, one of the Northern Marianas. It is home to Andersen Air Force Base and U.S. Naval Forces Marianas.
	guar gum	Extract from the guar bean, a tropical plant; generally the extract is dried and commercially provided as a

Acronym	Glossary	Definition
		powder for oil drilling and environmental applications
	gully erosion	Severe erosion in which trenches are cut to a depth greater than 30 centimeters (a foot). Generally, ditches deep enough to cross with farm equipment are considered gullies.

ERB Acronym and Glossary – H

Acronym	Glossary	Definition
H	Henry's Law Constant	Provides a measure of the extent of chemical partitioning between air and water at equilibrium. The higher the constant, the more likely a chemical is to volatilize than to remain in water.
H	Hydrogen	The lightest of the chemical elements, it forms organic compounds with carbon. The amount of dissolved hydrogen in groundwater can also indicate the redox state and pH of the local environment.
H&S	Health and Safety	The laws concerned with health and safety at work.
H2	Hydrogen Gas	Hydrogen is a gas element which has an atomic number of 1 and an atomic weight of 1.0079. It combines with oxygen to form water (H2O) and is present in all organic compounds. A few types of bacteria can metabolize atmospheric hydrogen (H2). Hydrogen gas itself is not poisonous, but when it mixes with air it can easily ignite or explode.
HA	Health Advisory	A non-regulatory health-based reference level of chemical traces (usually in ppm) in drinking water at which there are no adverse health risks when ingested over various periods of time. Such levels are established for one day, 10 days, long term and life-time exposure periods. They contain a large margin of safety.
HAP	Hazardous Air Pollutant	Air pollutants which are not covered by ambient air quality standards but which, as defined in the Clean Air Act, may reasonably be expected to cause or contribute to irreversible illness or death. Such pollutants include asbestos, beryllium, mercury, benzene, coke oven emissions, radionuclides, and vinyl chloride.
HARP	Historic and Archeological Resources Plan	developed to preserve the historical and archeological resources of the United States of America.
HAZMAT	Hazardous Material	Any material which, because of its quantity, concentration, or physical, chemical, or infectious characteristics may pose a substantial hazard to human health or the environment when released or spilled.
HAZWOPER	Hazardous Waste Operations and Emergency Response	Clean-up operations required by a governmental body, whether Federal, state local or other involving hazardous substances that are conducted at uncontrolled hazardous waste sites (including, but not limited to, the EPA's National Priority Site List (NPL), state priority site lists, sites recommended for the EPA NPL, and initial investigations of government identified sites which are conducted before the presence or absence of hazardous substances has been ascertained); corrective actions involving clean-up operations at sites covered by the Resource Conservation and Recovery Act of 1976 (RCRA); voluntary clean-up operations at sites recognized by Federal, state, local or other governmental bodies as uncontrolled hazardous waste sites; operations involving hazardous waste that are conducted at treatment, storage, disposal (TSD) facilities regulated by 40 CFR Parts 264 and 265 pursuant to RCRA; or by agencies under agreement with U.S.E.P.A. to implement RCRA regulations; and emergency response operations for

Acronym	Glossary	Definition
		releases of, or substantial threats of releases of, hazardous substances without regard to the location of the hazard.
HC	Hydrocarbons	Chemical compounds that consist entirely of carbon and hydrogen.
HCFC	Hydrochlorofluorocarbon	Hydrochlorofluorocarbons (HCFCs) is one of a class of fluorocarbon. Fluorocarbons are carbon-fluorine compounds that often contain other elements such as hydrogen, chlorine, or bromine. Common fluorocarbons include chlorofluorocarbons and related compounds (also known as ozone depleting substances including hydrochlorofluorocarbon which is a CFC substitute).
HDPE	High Density Polyethelene	typically used to make land fill liners, plastic bottles, milk cartons and other products. It produces toxic fumes when burned. Often referred to as No.2 Plastic.
HE	High Explosive(s)	an explosive capable of detonating, such as TNT
HEA	Health Effects Assessment	An evaluation of available data on existing or potential risks to human health posed by a Superfund site. The Agency for Toxic Substances and Disease Registry (ATSDR) of the Department of Health and Human Services (DHHS) is required to perform such an assessment at every site on the National Priorities List.
HEAST	Health Effects Assessment Summary Tables	A tabular presentation of toxicity information and values for chemicals that is updated quarterly. It summarizes interim and verified RfDs and slope factors as well as other toxicity information for specific chemicals. It contains the most current sources of supporting toxicity information for chemicals that cannot be found in the IRIS.
Heptachlor	Heptachlor	An insecticide that was banned on some food products in 1975 and all food products in 1978. It was allowed for use in seed treatment until 1983. More recently it was found in milk and other dairy products in Arkansas and Missouri where dairy cattle were illegally fed treated seed.
Hg	Mercury	Exists as a silvery, heavy liquid or as a heavy metal. It forms various insoluble salts and complex compounds with organic and inorganic chemicals. It is used for amalgams, catalysts, electrical apparatuses, instruments such as thermometers and barometers, and in nuclear power plants. Mercury released to the environment will remain indefinitely. It does not biodegrade but can be biotransformed into various different states. Its solubility and state depends heavily on the pH and redox state of the local environment. The toxicity, mobility, solubility and other properties depend upon the state the mercury is in, for example whether it forms an insoluble salt with another element or whether it has formed a complex organometallic compound like methyl mercury, which is the most hazardous and stable state of mercury. Bioaccumulation is a major concern. See Heavy Metals.
HHEM	Human Health Evaluation Manual	The baseline risk assessment is an analysis of the potential adverse health effects (current or future)

Acronym	Glossary	Definition
		caused by hazardous substance releases from a site in the absence of any actions to control or mitigate these releases (i.e., under an assumption of no action). The baseline risk assessment contributes to the site characterization and subsequent development, evaluation, and selection of appropriate response alternatives. The results of the baseline risk assessment are used to help determine whether additional response action is necessary at the site, modify preliminary remediation goals, help support selection of the "no-action" remedial alternative, where appropriate, and document the magnitude of risk at a site, and the primary causes of that risk.
HHRA	Human Health Risk Assessment	The three-tiered process used to determine potential risks to humans exposed to environmental contaminants. The three tiers are Tier 1 Risk-Based Screening; Tier 2 Baseline Risk Assessment (BRA); and Tier 3 Risk Evaluation of Remedial Alternatives (RERA).
HHS	Department of Health and Human Services	The Department of Health and Human Services is the United States government's principal agency for protecting the health of all Americans and providing essential human services, especially for those who are least able to help themselves.
HHS	Housing and Human Services	works to build a stronger and healthier community through a range of comprehensive services that address the needs of City residents and facilitate community development.
HI	Hazard Index	The sum of more than one Hazard Quotient for multiple substances and/or multiple exposure pathways. The HI is calculated separately for chronic, subchronic and shorter-duration exposures. The HI indicates the risk from the presence of multiple substances at one site, or exposures to the same chemicals through multiple media and pathways.
HIT	Hazard Index, Total	Sum of media specific Hazard Quotients for non-carcinogens.
HM/HW C&M	Hazardous Material/Hazardous Waste Control and Management	as defined in OPNAINST 4110.2, OPNAVINST 5100.23 and OPNAVINST 5100.19 which defines hazardous material control and management; wherein the objectives are to minimize the amount of hazardous materials in use; use hazardous materials safely; and decrease the amount of hazardous waste produced.
HMIS	Hazardous Materials Information System	A computerized database of Material Safety Data Sheets (MSDSs). It provides information for people working in hazardous material management. The system provides basic technical information required for all levels of hazardous materials to aid in their proper handling, storage, transportation, and disposal; provides information about safety, health, and environmental functions.
HMTA	Hazardous Material Transportation Act	The major transportation-related statute affecting DOE. The objective of the HMTA according to the policy stated by Congress is ". . .to improve the regulatory and enforcement authority of the Secretary of Transportation to protect the Nation adequately against risks to life and

Acronym	Glossary	Definition
		property which are inherent in the transportation of hazardous materials in commerce." The HMTA empowered the Secretary of Transportation to designate as hazardous material any "particular quantity or form" of a material that "may pose an unreasonable risk to health and safety or property."
HMTR	Hazardous Materials Transportation Regulations	prescribes requirements for: (1) The offering of hazardous materials for transportation and transportation of hazardous materials in interstate, intrastate, and foreign commerce by rail car, aircraft, motor vehicle, and vessel (except as delegated at § 1.46(t) of this title); (2) the representation that a hazardous material is present in a package, container, rail car, aircraft, motor vehicle, or vessel; (3) The manufacture, fabrication, marking, maintenance, reconditioning, repairing, or testing of a packaging or container which is represented, marked, certified, or sold for use in transportation of hazardous materials; (4) The use of terms and symbols prescribed in this subchapter for the marking, labeling, placarding and description of hazardous materials and packagings used in their transport.
HMTUSA	Hazardous Material Transportation Uniform Safety Act	requires training in hazardous material recognition and identification.
HMX	High Melting (or His Majesty's) Explosive	Cyclotetramethylene-tetranitramine, a powerful military explosive material.
HNTS	Hydrocarbon National Test Site	located at Naval Construction Battalion Center, Port Hueneme, California; serves as the demonstration site for various innovative environmental technologies.
HPLC	High Performance Liquid Chromatography	An analytical technique used for separation of low-to-moderate molecular weight compounds of resins. The instrumentation for HPLC and size exclusion (SEC) or gel-permeation chromatography are similar, but the columns differ.
HPO	Hydrous Pyrolysis Oxidation	utilizes the heating large volumes of soil and groundwater for the in situ destruction of volatile organic compounds (VOCs). Steam and oxygen are injected together, building a heated oxygenated zone in the subsurface. When injection is halted, steam condenses and contaminated groundwater returns to the heated zone. The contaminated groundwater then mixes with the heated condensate and oxygen, destroying the dissolved contaminants.
HQ	Hazard Quotient	The ratio of a single substance exposure level over a specified time period to a reference dose for that substance derived from a similar exposure period. Indicates the hazard or risk from exposure to that substance.
HQ	Headquarters	the military installation from which a commander performs the functions of command.
HRA	Historical Radiological Assessment	Provides a "snapshot" of the radiological conditions at an installation. HRAs are used as the baseline document for determining the type and extent of radiological investigation at an installation.

Acronym	Glossary	Definition
HRS	Hazardous Ranking System	The principle screening tool used by EPA to evaluate risks to public health and the environment associated with abandoned or uncontrolled hazardous waste sites. The HRS calculates a score based on the potential of hazardous substances spreading from the site through the air, surface water, or groundwater, and on other factors such as density and proximity of human population. This score is the primary factor in deciding if the site should be on the National Priorities List and, if so, what ranking it should have compared to other sites on the list.
HRS2	Hazardous Ranking System, Revised	The method used by EPA to evaluate the relative potential of hazardous substance releases to cause health or safety problems, or ecological or environmental damage. It is the primary mechanism used by EPA to place sites on the NPL. The EPA bases the score on evaluation of three contaminant migration pathways. A score of 28.50 or above will require the site to be placed on the NPL. The score is based on such factors as amount and toxicity of contaminants, potential mobility, pathways for human exposure and proximity of population centers. EPA issued the HRS in 1990, and it became effective in March 1991. The revised HRS (HRS 2) incorporates SARA requirements and improvements identified by EPA and the public including an assessment of ecological effects.
HS	Hazardous Substance	1) Any material that poses a threat to human health and/or the environment. Typical hazardous substances are toxic, corrosive, ignitable, explosive, or chemically reactive. 2) Any substance designated by EPA to be reported if a designated quantity of the substance is spilled in the waters of the United States or if otherwise released into the environment.
HS	Hydrogen Sulfide	Gas emitted during organic decomposition. Also a byproduct of oil refining and burning. Smells like rotten eggs and, in heavy concentration, can kill or cause illness.
HSL	Hazardous Substance List	A list of hazardous substances that are subject to the state hazardous substance tax as defined by the Model Toxics Control Act; in general terms, petroleum products, pesticide products, and chemicals.
HSM	Health and Safety Manager	Personnel responsible for ensuring that matters relating to health and safety standards, processes and procedures, facilities, arrangements for staff welfare at work, their maintenance and improvement are implemented.
HSWA	Hazardous and Solid Waste Act Amendments (to RCRA)	These amendments modified and strengthened the 1965 Solid Waste Disposal Act and the 1976 RCRA Act to control the management and disposal of both non-hazardous and hazardous wastes.
HTW	Hazardous and Toxic Waste	A solid waste that is either "listed" under 40 CFR Part 261 or is a "characteristic" hazardous waste under RCRA due to its ignitability, corrosivity, reactivity or toxicity. RCRA, as amended by the Solid Waste

Acronym	Glossary	Definition
		Disposal Act of 1980, defines this term as a ζ solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may (A) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness; or (B) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed. ζ
HVAC	Heating, Ventilation, and Air Conditioning (System)	The system of pipes, ducts and equipment (air conditioners, chillers, heaters, boilers, pumps, fans) used to heat, cool, move and filter air in a building. HVAC systems are also known as mechanical systems.
HW	Hazardous Waste	1) A solid waste or combination of solid wastes which because of its quantity, concentration, or physical, chemical, or infectious characteristics may: A) Cause or contribute to an increase in mortality or to a serious, irreversible, or incapacitating reversible illness; or B) Pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of or otherwise managed. Hazardous wastes may be listed (named on a list within a regulation) or characteristic (exhibits one of the four characteristics: corrosive, toxic, ignitable or reactive). 2) By-products of society that can pose a substantial or potential hazard to human health or the environment when improperly managed.

ERB Glossary – H

Acronym	Glossary	Definition
	habitat	The place where a population (e.g., human, animal, plant, microorganism) lives, and its surroundings, both living and non-living.
	habitat indicator	A physical attribute of the environment measured to characterize conditions necessary to support an organism, population, or community in the absence of pollutants, e.g., salinity of estuarine waters or substrate type in streams or lakes.
	half-life	(physical, biological or effective) -1) The time for a quantity of material/chemical to diminish by a factor of half (because of nuclear decay events, biological elimination of the material, or both). The greater the half-life, the more persistent a material/chemical is likely to be. For example, the biochemical half-life of DDT in the environment is 15 years, Radium is 1,580 years. 2) The time required for half of the atoms of a radioactive element to undergo self-transmutation or decay. 3) The time required for the elimination of one half a total dose from the body.
	halogen	Any of a group of five chemically-related, nonmetallic elements that includes bromine, fluorine, chlorine, iodine, and astatine. Can combine with metals to form

Acronym	Glossary	Definition
		salts or substitute for hydrogen in many organic compounds. The resultant halogenated compound is generally less flammable but more toxic.
	halogenated	Organic compounds containing one or more halogens substituted for hydrogen. The resulting substituted compound is generally less flammable but more toxic.
	Halon	Bromine-containing compounds with long atmospheric lifetimes whose breakdown in the stratosphere causes depletion of ozone. Halons are used in fire-fighting.
	hand auger drilling	Hand drilling by rotating a spiral channel supported on a shaft.
	hardness	Characteristic of alkaline water caused by the presence of various salts. Hard water may interfere with some industrial processes and prevent soap from lathering.
	hauler	Waste collection company that offers refuse or waste removal service; many will also collect recyclables.
	hazard communication standard	An OSHA regulation that requires chemical manufacturers, suppliers, and importers to assess the hazards of the chemicals that they make, supply, or import, and to inform employers, customers, and workers of these hazards through Material Safety Data Sheets.
	hazard evaluation	A component of risk evaluation that involves gathering and evaluating data on the types of health injury or disease that may be produced by a chemical and on the conditions of exposure under which such health effects are produced.
	hazard identification	Determining if a chemical can cause adverse health effects in humans and what those effects might be.
	hazardous chemical	An EPA designation for any hazardous material requiring an MSDS under OSHA's Hazard Communication Standard. Such substances are capable of producing fires and explosions or adverse health effects like cancer and dermatitis. Hazardous chemicals are distinct from hazardous waste. See Hazardous Waste.
	hazardous waste landfill	An excavated or engineered site where hazardous waste is deposited and covered.
	hazards analysis	Procedures used to 1) identify potential sources of released hazardous materials from fixed facilities or transportation accidents; 2) determine the vulnerability of a geographical area to a release of hazardous materials; and 3) compare hazards to determine which present greater or lesser risks to a community.
	hazards identification	Providing information on which facilities have extremely hazardous substances, what those chemicals are, how much there is at each facility, how the chemicals are stored, and whether they are used at high temperatures.
	head	1) The elevation of the groundwater table above a specified point. 2) The height above a standard reference (datum) of the surface of a column of water or other liquid. Head is the sum of three components at a point: a) Elevation head, which is equal to the elevation

Acronym	Glossary	Definition
		of the point above a datum, b) Pressure head, which is the height of a column of static water that can be supported by static pressure at the point, and c) Velocity head, which is the height the kinetic energy of the liquid is capable of lifting the liquid.
	health advisory level	A non-regulatory health-based reference level of chemical traces (usually in ppm) in drinking water at which there are no adverse health risks when ingested over various periods of time. Such levels are established for one day, 10 days, long term and life-time exposure periods. They contain a large margin of safety.
	health assessment	An evaluation of available data on existing or potential risks to human health posed by a Superfund site. The Agency for Toxic Substances and Disease Registry (ATSDR) of the Department of Health and Human Services (DHHS) is required to perform such an assessment at every site on the National Priorities List.
	health based cleanup goal	A media-specific contaminant concentration derived from the risk assessment process; used as the goal for cleanup.
	health hazard	A chemical, mixture of chemicals or a pathogen for which there is statistically significant evidence, based on at least one study conducted in accordance with established scientific principles, that acute or chronic effects may occur in exposed personnel.
	health impacts	Calculated numeric values that express, in quantified terms, the effect on human receptors of exposure to contaminants present in a given environment. Two common kinds of health impacts are risk values (such as RBSLs) and hazard quotients.
	heat exhaustion (heat prostration)	A mild form of shock caused when the circulatory system begins to fail as a result of the body's inadequate effort to give off excessive heat.
	heatstroke	A severe and sometimes fatal condition resulting from the failure of the temperature-regulating capacity of the body. It is caused by prolonged exposure to the sun or high temperatures. Reduction or cessation of sweating is an early symptom. Body temperatures of 105°F or higher, rapid pulse, hot and dry skin, headache, confusion, unconsciousness, and convulsions may occur. Heatstroke is a TRUE MEDICAL EMERGENCY, requiring immediate transport to a medical facility.
	heavy metals	Metallic elements with high atomic weights that can damage living things at low concentrations and tend to accumulate in the food chain, e.g., mercury, chromium, cadmium, arsenic, and lead.
	hematite	The mineral form of ferric oxide (Fe ₂ O ₃).
	herbicide	A chemical pesticide designed to control or destroy plants, weeds, or grasses.
	herbivore	An animal that feeds on plants.
	heterogeneous	Pertaining to a substance having different characteristics in different locations. Non-uniform. For example, sand with intermittent clay lenses. Antonym

Acronym	Glossary	Definition
	heterotrophic organisms	Consumers such as humans and animals, and decomposers such as bacteria and fungi, that are dependent on organic matter for food.
	high-to-low dose extrapolation	Prediction of low exposure risk to humans from the measured high exposure, high risk data involving rodents.
	histogram	A graphic display of the distribution of items (e.g., chemicals) in a given population or sample.
	holding pond	A pond or reservoir, usually made of earth, built to store runoff.
	holding time	The elapsed time expressed in days from the date of receipt of the sample by the contractor until the date of its analysis.
	hollow stem auger	Center of auger is hollow like a straw when the inner drive rods and plug are removed. During drilling or formation cutting, the center is filled with rods connected to a plug at the bottom bit. Once the desired drilling depth is reached, the center plug and rods can be pulled out - leaving the hollow augers in place. The hollow augers hold the borehole open for sediment sampling and well installation.
	homogeneous	Pertaining to a substance having uniform characteristics throughout. Uniform. Antonym - Heterogeneous.
	hot zone	See Exclusion Zone.
	household waste (domestic waste)	Solid waste, composed of garbage and rubbish, which normally originated in a private home or apartment house. Domestic waste may contain a significant amount of toxic or hazardous waste.
	human equivalent dose	A dose which, when administered to humans, produces an effect equal to that produced by a dose in animals.
	human exposure evaluation	Describing the nature and size of the population exposed to a substance and the magnitude and duration of their exposure. The evaluation could concern past, current, or anticipated exposures.
	human health risk	The likelihood that a given exposure or series of exposures may have or will damage the health of individuals.
	Hunter's Point	Hunters Point Naval Shipyard was located south of San Francisco facing San Francisco Bay and closed in 1974. Environmental cleanup is ongoing today.
	Hydra-Sleeve	A cylindrical, flexible polyethylene bag with a polyethylene check ball at the top. An upper check valve opens and water moves into the flexible chamber at the selected depth, expanding it until full.
	hydraulic	Operated by or involving the pressure of water or some other liquid.
	hydraulic capture	Capture of a certain volume of groundwater in an aquifer using hydraulic means, such as extraction wells.
	hydraulic fracturing	A permeable reactive barrier placement method that involves the installation of a series of wells along the length of the proposed barrier and propagation of a controlled vertical fracture through each well. The fracture is initiated through the use of a specially

Acronym	Glossary	Definition
		designed, down hole tool or frac tool, which cuts a vertical notch in the subsurface. The fracture is then propagated and filled with granular iron suspended in a hydrated guar-based slurry. The emplaced material in one frac well coalesces with the emplaced material in the adjacent frac well, thus forming a continuous vertical wall.
	hydraulic gradient	The gradient or slope of the water table, or of the potentiometric surface, in the direction of the greatest slope, generally expressed in feet per mile.
	hydric soil	Soil containing considerable moisture.
	hydrogen peroxide/ultraviolet irradiation	A process that uses hydrogen peroxide (H ₂ O ₂) in solution in combination with ultraviolet (UV) light irradiation to disinfect water or chemically oxidize organic contaminants.
	hydrogenolysis	A reductive reaction in which a carbon-halogen bond is broken, and hydrogen replaces the halogen substituent.
	hydrogeologic cycle	The natural processes recycling water from the atmosphere down to (and through) the earth and back to the atmosphere again.
	hydrogeology	The geology of groundwater, and related geological aspects of surface water, with particular emphasis on the chemistry and movement of water.
	hydrologic cycle	Movement or exchange of water between the atmosphere and the earth.
	hydrology	The science that deals with the properties of the waters of the earth, their distribution on the surface and underground, and the circulation cycles involving evaporation, precipitation, flow, etc.
	hydrometallurgical processing	A remediation process that combines chemical leaching and leachant regeneration, and typically includes one or more of the following four steps: dissolution of the desired metal; purification and/or concentration of the metal; recovery of the metal or a metal salt; and regeneration of the leaching solution
	hydrometer	An instrument for determining specific gravity. It can also be used as a grain size test, because grain size distribution affects the specific gravity of fluids according to the distribution present.
	hydrophilic	"Water-liking"; having a strong affinity for water. Substances that can interact favorably with polar water molecules.
	hydrophobic	"Water-fearing"; having a strong aversion for water. Substances that tend not to dissolve in water.
	hydropneumatic	A water system, usually small, in which a water pump is automatically controlled by the air pressure in a compressed air tank.
	hydroxyl	monovalent molecule consisting of one hydrogen and one oxygen atom (OH-).
	hydroxyl radical	a hydroxyl ion with an unpaired electron.

ERB Acronym and Glossary – I

Acronym	Glossary	Definition
I	Intake	A measure of exposure expressed as mass of a substance in contact with the exchange boundary per unit body weight per unit time (e.g., mg chemical/kg/day). Also termed the normalized exposure rate; administered dose, and applied dose.
IAG	Interagency Agreement	A formal agreement between the EPA, the state, and the Navy that establishes objectives, responsibilities, procedures, and schedules for remediation at NPL installations. The IAG must be made formal within 180 days of EPA's review of the RI/FS.
IAS	In Situ Air Sparging	A saturated zone remedial strategy. IAS involves the injection of pressurized air into the saturated zone. IAS induces a transient, air-filled porosity in which air temporarily displaces water as air bubbles migrate laterally from the sparge point and also vertically towards the water table. IAS induces a separate phase flux in which air travels in continuous, discrete air channels of relatively small diameter from the sparge point to the water table. Air movement through the saturated zone typically does not occur as migrating air bubbles, with the exception of within homogeneous, highly permeable formations of unconsolidated coarse sand and gravel deposits.
IC	institutional control	Administrative or legal mechanisms designed to protect public health and the environment from residual contamination at environmental restoration sites. For example, land use restrictions imposed by the property owner in a property deed would limit access to or use of the property.
ICE	Internal Combustion Engine	Any engine that operates by burning its fuel inside the engine.
ICP	Inductively Coupled Plasma	utilizes plasma to excite elemental electrons which produce photons unique to each element. An example of this procedure is one used for a whole rock analysis. In this procedure a lithium meta-borate flux is generally used to digest the specimen. Once digested, the solution is introduced to the plasma allowing elemental concentration comparisons to known concentration curves. Using stoichiometric techniques elemental concentrations can be converted into molecular weight percentages. An inductively coupled plasma source atomizes and excites even the most refractory elements with high efficiency. With this ICP, several elements can be determined simultaneously without the need for repeated aspirations, adjustment of instrument parameters and tracking of the samples.
ICR	Incremental Carcinogenic Risk Level	The potential for incremental carcinogenic human health effects due to exposure to the chemical(s) of concern.
ICRE	Ignitability, Corrosivity, Reactivity, Extraction (Characteristics)	these are the characteristics that define a RCRA hazardous waste as it appears and as defined in 40 CFR 261.
ICS	Incident Command System	An effective system for managing emergencies. Several States have adopted ICS as their standard for emergency management, and others are considering

Acronym	Glossary	Definition
		adopting ICS.
IDL	Instrument Detection Limit	1) Under ideal conditions, that concentration of analyte which produces an output signal twice the root mean square of the background noise. 2) Three times the standard deviation obtained for the analysis of a standard solution (each analyte in reagent water) at a concentration of 3x-5x instrument detection limit, on three nonconsecutive days with seven consecutive measurements per day.
IDLH	Immediately Dangerous to Life and Health	The maximum level to which a healthy individual can be exposed to a chemical for 30 minutes and escape without suffering irreversible health effects or impairing symptoms. Used as a "Level of Concern." See Level of Concern.
ieFACMAN	interoperable enterprise Facilities Management	Information Technology Architecture - ¿ieFACMAN¿ represents a new direction for Naval Facility Engineering Command (NAVFAC) information systems. It is an enterprise solution, one that will be employed across all NAVFAC commands and business lines. ieFACMAN is an integrated suite of ¿best of breed¿ commercial applications and existing NAVFAC corporate systems. ieFACMAN is being developed as solution which: Implements standard, corporate business practices across NAVFAC. Provides the functional tools needed to perform and manage NAVFAC¿s work. Captures information about all NAVFAC work in a common data environment. The goal of ieFACMAN is to be a comprehensive system by which NAVFAC executes work and provides key information to NAVFAC and its many customers.
IMAD	Information Management and Distribution	forms the backbone information infrastructure; many capabilities (not currently available) will be an integral part of this information environment; providing technologies that allow automated, adaptive, and robust information resource management; incorporating a context-based rather than a message-based approach, information synchronization and real time management.
IMS	Internet Map Service	An interactive internet tool for displaying multiple layers of data on a map.
INRMP	Integrated Natural Resource Management Plan	a comprehensive plan for managing a site's natural resources.
IPT	Integrated Product Team	Integrated Product Service Delivery Team. Across all Business and Support Lines; includes all Functions Required to Create IPTs; ROICC part of IPT; Touch Point to Client for all Products & Services; Focal Point for Work Input, Client Expectations; Permanent Members Based on Workload, Client Specific needs, and Specialties of Professional Staff; IPT Leader: CEC 05 or GS-15/14; Reports to OPS (Warrantable if CEC, Registered PE/RA); Recommended Minimum Members: CIBL PM, ENV RPM, BOS PM, PLN REP, RE REP, 1102s; Other Virtual Members Tagged from BLM Staff; Using Single Project Manger Concept; Cradle to Cradle, End-to-End ; Coordinates PM, DM, and CM with CIBL; Could Reside in IPT or ROICC; Higher Level Skill Required; Uses New Acquisition Strategies for just-in-

Acronym	Glossary	Definition
		time Engineering
IR	Infrared	Light that is so red humans cannot see it. A band of the electromagnetic spectrum between the visible and the microwave. Photons of infrared light are less energetic than photons of visible light.
IR	Ingestion Rate, mg/day, or Inhalation Rate	potential dose rate; is the amount of chemical which could be ingested or inhaled per day.
IR	Installation Restoration	Established in 1984 to help identify, investigate, and cleanup contamination on DoD properties; conducted under the auspices of CERCLA of 1980 and SARA of 1986; the DoD equivalent to the EPA Superfund program.
IRA	Interim Remedial Action	A response action under CERCLA to mitigate fire and safety hazards and to prevent further migration of the contaminant(s). It may be identified and implemented at any time during the study or design phase; limited in scope and addresses only areas or media for which a final remedy will be developed by the RI/FS process; should be consistent with the final remedy for a site.
IRIS	Integrated Risk Information System	A USEPA data base containing verified RfDs, slope factors and up-to-date health risk and USEPA regulatory information for numerous chemicals. IRIS is USEPA's preferred source for toxicity information for Superfund.
IRP	Installation Restoration Program	Established in 1984 to help identify, investigate, and cleanup contamination on DoD properties; conducted under the auspices of CERCLA of 1980 and SARA of 1986; the DoD equivalent to the EPA Superfund program.
IRTCC	Installation Restoration Technology Coordinating Committee	which later became the Environmental Technology Transfer Committee. These groups focused primarily on development, demonstration and transfer of environmental technologies for military use.
IS	Interim (Permit) Status	Period during which treatment, storage and disposal facilities coming under RCRA in 1980 are temporarily permitted to operate while awaiting a permanent permit.
IS	Interim Status	a period of time when hazardous waste storage, treatment facilities and transporters could continue to operate under a special set of regulations until the appropriate permit or license application is or approved by DER.
ISC	Initial Site Characterization	Completed after discovery of a release from an Underground Storage Tank (UST) and after any initial abatement measures and the site check have been completed. The ISC should assemble information into a report on the site such as the nature and estimated quantity of release; surrounding populations; water quality, use and well locations; storm water/wastewater systems; climatology; land use; results of the site check and initial abatement measures; and results of any free product removals. Equivalent to a CERCLA Preliminary Assessment (PA).
ISCO	In-Situ Chemical Oxidation	involves injecting chemical oxidants into the vadose zone and/or ground water to oxidize contaminants.
ISV	In Situ Vitrification	A commercially available mobile, thermal treatment

Acronym	Glossary	Definition
		process that involves the electric melting of contaminated soils, sludges, or other earthen materials, wastes and debris for the purposes of permanently destroying, removing, and/or immobilizing hazardous and radioactive contaminants.
ISV	In Situ Volatilization	A system of mechanically venting air through contaminated soil in order to mobilize VOCs trapped in an anaerobic underground situation. The effectiveness of this technique is limited by the rate of VOCs venting into the atmosphere, which in a highly contaminated site requires air filtration and thus the continuing liability for the byproduct of contaminated filters in landfills.
ITRC	Interstate Technology and Regulatory Council	The ITRC was initiated by the Western Governors Association to expedite the use of technology for the characterization and cleanup of contaminated sites. Twenty-six states have participated in this project. Most of the participating states have agreed to accept each other's test results if the agreed upon testing protocols are used. This would make it possible to test a technology in one of these states and have such results accepted in the 25 other states. In addition to the state representatives, there are a number of other groups, such as the Southern States Energy Board and a number of stakeholders who have participated.
IWA	In Well Aeration	treats groundwater and soil contaminated with hydrocarbons. In this process, groundwater is pumped to the surface and aerated, removing most of the volatile vapors. The aerated groundwater is distributed over an area of contaminated soil. The aerated water carries oxygen to the subsurface soil, promoting biodegradation. The combined process of biological treatment and physical extraction the time required to achieve remediation goals and lowers contaminant concentrations.

ERB Glossary – I

Acronym	Glossary	Definition
	ignitable	1) A liquid that has a flash point less than 140°F. 2) Capable of burning or causing a fire.
	imminent threat	A threat posed by a site if human exposure in excess of applicable human health or environmental criteria is predictable prior to implementation of an effective remedial action or an operable unit thereof.
	immiscible	Refers to liquids which do not form a single phase when mixed; e.g. oil and water. Synonym - Non-Aqueous Phase Liquid. Antonym - Miscible.
	immunoassay	A technology used to measure biological reactions to individual compounds or classes of compounds. Immunoassay tests are designed to detect specific chemicals by measuring the chemicals' response to specific antibodies. The antibodies do not respond to dissimilar substances. The tests can be conducted in a

Acronym	Glossary	Definition
		lab setting or in the field. Immunoassay kits have been developed as a method to rapidly screen for fuels, semi-volatile organic compounds (SVOCs), pesticides, and some metals in soil, sediment, groundwater, and surface water.
	impermeable	Not easily penetrated. The property of a material or soil that does not allow, or allows only with great difficulty, the movement or passage of water, particles or chemicals.
	in line filtration	Pre-treatment method in which chemical coagulants are added directly to the filter inlet pipe. The chemicals are mixed by the flowing water. Commonly used in pressure filtration installations. Eliminates need for flocculation and sedimentation.
	in situ	(1) In its original place; unmoved, unexcavated; remaining at the site or in the subsurface. (2) A technology or treatment process that can be carried out in place, without removal of the contaminated matrix.
	in situ barrier	Trench or cell in the subsurface designed to divert, isolate, and/or treat groundwater
	in situ biological reduction	A remediation process that involves establishing appropriately oxidizing or reducing conditions in an aquifer by stimulating biological activity. Contaminants are converted and then immobilized by natural on-site conditions
	in situ chemical oxidation/reduction	A remediation process that involves the injection of a chemical agent or electric current into soil and/or groundwater to oxidize or reduce a contaminant to a less-toxic (or non-toxic) state. Contaminants are then immobilized in place rather than brought to the surface for removal and treatment
	in situ remediation	A treatment process that can be operated within the site of contamination without bulk excavation. Antonym - Ex Situ.
	in situ respiration test	Test used to provide rapid field measurement of in situ biodegradation rates to determine the potential applicability of bioventing at a contaminated site and to provide information for a full-scale bioventing system design.
	in situ stripping	Treatment system that removes or "strips" volatile organic compounds from contaminated ground or surface water by forcing an airstream through the water and causing the compounds to volatilize/evaporate.
	incineration	A treatment technology involving destruction of waste by controlled burning at high temperatures, e.g., burning sludge to remove the water and reduce the remaining residues to a safe, non-burnable ash that can be disposed of safely on land, in some waters, or in underground locations.
	incinerator	Typically consists of a furnace and stack unit used for a variety of disposal activities including the controlled burning of medical waste, packaging and varieties of municipal waste.
	incompatible waste	A waste unsuitable for mixing with another waste or

Acronym	Glossary	Definition
		material because it may react to form a hazard.
	indicator	1) In biology, an organism, species, or community whose characteristics show the presence of specific environmental conditions. 2) In chemistry, a substance that shows a visible change, usually of color, at a desired point in a chemical reaction. 3) A device that indicates the result of a measurement, e.g., a pressure gauge or a moveable scale.
	indigenous	1) Living or occurring naturally in a specific area or environment, native. 2) For bioremediation, microorganisms already living at a site.
	indirect exposure pathway	An exposure pathway with at least one intermediate release to any media between the source and the point(s) of exposure (for example, chemicals of concern from soil through groundwater to the point(s) of exposure).
	indoor air	The breathing air inside a habitable structure or conveyance.
	indurated	Rendered hard.
	industrial waste	Unwanted materials from an industrial operation; may be liquid, sludge, solid, or hazardous waste.
	infauna	1) Benthic organisms that live in or burrow through the bottom sediment. 2) Organisms living within a substrate.
	infiltration	1) The penetration of water through the ground surface into sub-surface soil or the penetration of water from the soil into sewer or other pipes through defective joints, connections, or manhole walls. 2) The technique of applying large volumes of wastewater to land to penetrate the surface and percolate through the underlying soil. See Percolation.
	infiltration gallery	Covers a wide range of subsurface groundwater collection systems. They are typically shallow in depth, constructed with open-jointed or perforated pipes that discharge collected water into a water-tight chamber from which the water is pumped to treatment facilities and into the distribution system. Usually located close to streams or ponds. Can also be used to collect water for remediation purposes after it has passed through an area of contamination as a type of washing method.
	infiltration rate	The quantity of water than can enter the soil in a specified time interval.
	influent	Water, wastewater, or other liquid flowing into a reservoir, basin, or treatment plant.
	information repositories	Collections of site information that include items which are related to the site, but may or may not be suitable for incorporation in the administrative record.
	ingestion	The introduction of a chemical into the body through the mouth. Inhaled chemicals may be trapped in saliva and swallowed. Exposed personnel should be prohibited from smoking, eating, or drinking except in designated rest areas after being decontaminated.
	inhalation	The introduction of chemical vapors or toxic products of combustion into the body by way of the respiratory

Acronym	Glossary	Definition
		system. Toxins may be absorbed into the bloodstream and carried to other internal organs, or they may affect the upper and/or lower respiratory tract. Resulting respiratory injuries include pulmonary edema and respiratory congestion. Inhalation is the most common exposure route and often the most damaging.
	injection well	A well into which fluids or gases are injected for purposes such as waste disposal, improving the recovery of crude oil, solution mining, or delivering nutrients to speed biodegradation of chemicals in groundwater.
	injection zone	A geological formation receiving fluids through a well.
	innovative treatment technologies	Newly invented processes that have been tested and used as treatments for hazardous waste or other contaminated materials, but still lack enough information about their cost and how well they work to predict their performance under a variety of operating conditions. They are often used because they can offer cost-effective, long-term solutions to cleanup problems, they may provide an alternative to land disposal or incineration, and are often more acceptable to surrounding communities than some established treatment technologies.
	inorganic chemicals	Chemical substances of mineral origin, not usually having a carbon structure.
	inorganic compounds	A compound that generally does not contain carbon atoms, although carbonate and bicarbonate compounds are notable exceptions. Examples of inorganic compounds include various acids, potassium hydroxide, and metals.
	installation	The real property owned, formerly owned, or leased by the Navy, including a main base and any associated contiguous real properties identified by the same real property number.
	institutional controls	The restriction on use or access (for example, fences, deed restrictions, restrictive zoning) to a site or facility to eliminate or minimize potential exposure to a chemical(s) of concern.
	integrated exposure assessment	Cumulative summation (over time) of the magnitude of exposure to a toxic chemical in all media.
	interested parties/groups	Community members that live and/or work in the affected community that would be impacted by the release or potential release of a hazardous substance prior to, or as part of restoration activities at an IR site.
	interface	The common boundary between two substances such as water and a solid, water and a gas, or two separate liquids such as water and oil.
	interim action	Those removal actions that only partially address a problem or only address the problem for a short time. Interim actions require further study and possibly action, in addition to the interim action. Interim actions are most appropriate to mitigate immediate threats while allowing time for studies to be conducted, as necessary to determine a final solution.

Acronym	Glossary	Definition
	interim corrective measure	A response action under RCRA to mitigate fire and safety hazards and to prevent further migration of the contaminant(s). It may be identified and implemented at any time during the study or design phase; limited in scope and addresses only areas or media for which a final remedy will be developed by the RI/FS process; should be consistent with the final remedy for a site.
	internal standards	Compounds added to every standard, blank, matrix spike, matrix spike duplicate, sample (for volatile), and sample extract (for semivolatile) at a known concentration prior to analysis. Internal standards are used as the basis for quantitation of the target compounds.
	interstate waters	Waters that flow across or form part of state or international boundaries, e.g., the Great Lakes, the Mississippi River, or coastal waters.
	interstices	The opening or pore spaces in a soil or rock formation. In an aquifer, they are filled with water.
	interstitial monitoring	The continuous surveillance of the space between the walls of an underground storage tank.
	intrinsic	1) Originating or due to causes within something. 2) Originating and occurring wholly within something.
	intrinsic bioremediation	The in situ reduction of contaminant concentrations resulting from the destruction, loss, or dilution of contaminant mass (without human intervention) to levels that do not pose a risk to human health or the environment.
	in-well aeration	The process of injecting gas into a well to produce an in-well airlift pump effect.
	ion	An electrically charged atom that can be drawn from waste water during electro dialysis.
	ion exchange treatment	A common water-softening method often found on a large scale at water purification plants that remove some organics and radium by adding calcium oxide or calcium hydroxide to increase the pH to a level where the metals will precipitate out.
	ionic strength	A measure of the concentration and charge of ions in solution. The ionic strength of a solution affects the solubility of compounds, most often increasing the solubility. This means that in the environment, chemicals could be more soluble in a "salt" solution than in pure water.
	irreversible effect	Effect characterized by the inability of the body to partially or fully repair injury caused by a toxic agent.
	irritant	A substance that can cause irritation of the skin, eyes, or respiratory system. Effects may be acute from a single high level exposure, or chronic from repeated low-level exposures to such compounds as chlorine, nitrogen dioxide, and nitric acid.
	isocontours	A contour line through points of equal value of a selected property (such as elevation) on a two-dimensional representation of a three-dimensional surface (such as a map).

Acronym	Glossary	Definition
	isolation procedure	The process of limiting the number of civilian and public service personnel exposed to a hazardous material.
	isomer	A compound with the same atomic composition and molecular weight as another compound but differing in molecular structure and chemical or physical properties. For example, graphite (pencil lead) and diamond are isomers of carbon. Both are composed of pure carbon, but exhibit very different physical properties.
	isotope	A variation of an element that has the same atomic number of protons but a different weight because of the number of neutrons. Various isotopes of the same element may have different radioactive behaviors, some are highly unstable.
	Isotope (radiogenic)	Atoms of the same element that have the same number of protons, but different number of neutrons and that undergo spontaneous decay at a known rate; typically used in geochronology of sediments (e.g., ^{137}Cs , ^{210}Pb , ^{14}C).
	Isotope (stable)	Atoms of the same element that have the same number of protons, but different number of neutrons and that do not undergo decay; often expressed as a ratio (e.g., $^{13}\text{C}/^{12}\text{C}$, $^{18}\text{O}/^{16}\text{O}$, $^{35}\text{Cl}/^{34}\text{Cl}$, $^2\text{H}/^1\text{H}$).
	isotropic	Having identical properties in all directions. Syn. Isotropy.

ERB Acronym and Glossary – J

Acronym	Glossary	Definition
J	data qualifiers - organic analysis - J	Positive identification, but estimated concentration. This flag is used either when estimating a concentration for TIC where a 1:1 response is assumed, or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
JAG	Judge Advocate General	the JAG is the senior legal officer of the Army, Navy, or Air Force.
JP-4	Jet Fuel 4	Substances that are used by the U.S. Air Force as aircraft fuels. JP-4 is a colorless to straw-colored liquid. It smells like gasoline and/or kerosene and is flammable. JP-4 can be made by refining either crude petroleum oil or shale oil. Both JP-4 are blends of other chemicals made according to standards specified by the U.S. Air Force for each fuel.
JP-5	Jet Fuel 5	are substances that are used by the U.S. Air Force as aircraft fuels.
JSA	Job Safety Analysis	A method to review job procedures or practices to identify hazards and subsequently determine appropriate equipment and controls for implementation during performance of the job or task.

ERB Glossary – J

Acronym	Glossary	Definition
	jetting	Involves the injection of grout or slurry at high pressures into the ground. The high velocity erodes the soil and replaces some or all of it with grout or slurry. The delivery mechanism used for PRB installation is a triple-rod injection system, which delivers a fine-grained iron/guar gum slurry mixture, air, and water into the subsurface.

ERB Acronym and Glossary – K

Acronym	Glossary	Definition
K	hydraulic conductivity	A measure of the ability of an aquifer to transmit a fluid; it is expressed as the volume of water at the existing kinematic viscosity that will move in a unit time under a unit hydraulic gradient through a unit area measured at right angles to the direction of flow.
K	K	Proportionality constant in Darcy's, Fick's, and Poisson's Laws
K	Potassium	An alkali metal that forms various salts with halogens and other metals. It is an essential nutrient, and among other uses, it is used in electrical impulses in the nervous system. It is abundant naturally, and is generally not considered toxic.
Kd	Diffusion Coefficient	Provides a soil or sediment-specific measure of the extent of chemical partitioning between soil or sediment and water, unadjusted for dependency upon organic carbon. To adjust for the fraction of organic carbon (foc) present in soil or sediment use $Kd = Koc * foc$. The higher the Kd, the more likely a chemical is to bind to soil or sediment than to remain in water. This affects the efficiency of water-based remediation.
KMnO4	potassium permanganate	A crystalline salt of potassium and manganese used as an oxidizing agent; also called "purple salt".
Koc	Organic Carbon Diffusion Coefficient	Provides a measure of the extent of chemical partitioning between organic carbon and water at equilibrium. The higher the Koc, the more likely a chemical is to bind to soil or sediment than to remain in water.
Koc	Organic Carbon Partition Coefficient	Provides a measure of the extent of chemical partitioning between organic carbon and water at equilibrium. The greater the Koc, the more likely a chemical is to bind to soil or sediment than to remain in water.
Kow	Octanol Water Partition Coefficient	The octanol-water partition coefficient (kow) is the ratio of the concentration of a chemical in octanol and in water at equilibrium and at a specified temperature.
Kow	Octanol-Water Diffusion Coefficient	Provides a measure of the extent of chemical partitioning between octanol and water at equilibrium. The greater the Kow, the more likely a chemical is to partition to octanol than to remain in water. Octanol is used as a surrogate for lipids (fat), therefore Kow can be used to predict bioconcentration in aquatic organisms.
KPEG	potassium polyethylene glycol	Potassium polyethylene glycol is a common chemical used to treat PCB contaminated soils in batch reactors using the alkaline polyethylene glycol decomposition process.

ERB Glossary – K

Acronym	Glossary	Definition
	Kaneohe Bay	Marine Corps Base, Hawaii Kaneohe Bay is located on the eastern side of Oahu, approximately 12 miles

Acronym	Glossary	Definition
		northeast of Honolulu..
	karst	A geologic formation of irregular limestone deposits with sinks, underground streams, and caverns.
	kinetic energy	Energy possessed by a moving body as a result of its motion.
	kinetic rate coefficient	A number that describes the rate at which a water constituent such as a biochemical oxygen demand or dissolved oxygen rises or falls.

ERB Acronym and Glossary – L

Acronym	Glossary	Definition
LADD	Lifetime Average Daily Dose	lifetime average daily dose (LADD) is used for many assessments involving cancer effects. The LADD is calculated as follows: $LADD = (D * EF * ED) / (AT * CF)$; where: D = dose (mg/kg-day), EF = exposure frequency (i.e., frequency of product use) (days/year), ED = exposure duration (years), AT = averaging time (i.e., lifetime) (years), CF = conversion factor (365 days/year)
LBP	Lead Based Paint	Paint containing more than 0.06% of lead by weight.
LC	Liquid Chromatography	is an analytical chromatographic technique that is useful for separating ions or molecules that are dissolved in a solvent. If the sample solution is in contact with a second solid or liquid phase, the different solutes will interact with the other phase to differing degrees due to differences in adsorption, ion-exchange, partitioning, or size. These differences allow the mixture components to be separated from each other by using these differences to determine the transit time of the solutes through a column.
LC50	Lethal Concentration	Median level concentration, a standard measure of toxicity. It tells how much of a substance is needed to kill half of a group of experimental organisms in a given time. See LD50.
LD	Land Disposal	Practice of disposing of liquid and solid hazardous waste in earthen pits, In CA, the State Water Resources Control Board licenses two classes of land disposal facilities which can accept hazardous waste. Class I-Sites which cannot overlie usable ground water, except in "extreme cases," and which may receive all classes of hazardous waste except PCBs and radioactive waste. Class II-1-Sites which may overlie or be adjacent to usable ground water, but must protect ground water by natural site characteristics or site modifications.
LD50	Lethal Dose where 50% of animals die	The dose of a toxicant that will kill 50 percent of the test organisms within a designated period. The lower the LD50, the more toxic the compound.
LDR	Land Disposal Restrictions	A Californian state program administered by the Department of Health Services designed to progressively ban the land disposal of certain hazardous waste.
LEL	Lower Explosive Limit	The concentration of a compound in air below which the mixture will not ignite.
LEPC	Local Emergency Planning Committee	tasked to develop an emergency plan to prepare for and respond to chemical emergencies. The EPA's list of extremely hazardous substances provides a focus for setting priorities in the planning effort. It must include the identity and location of hazardous materials, procedures for immediate response to a chemical accident; ways to notify the public about actions they must take; names of coordinators at plants; and schedules and plans for testing the plan. Once the plan is written, the SERC must review it. The LEPC must publicize the plan

Acronym	Glossary	Definition
		through the public meetings or newspaper announcements, get public comments, and periodically test the plan by conducting emergency drills. The LEPC must also update the plan at least annually and let the public know of its activities.
LFG	Landfill Gas	A by-product from the digestion of anaerobic bacteria of decaying matter in waste deposited in landfill sites. The gas is predominantly methane(65%) together with carbon dioxide(35%) and trace concentrations of a range of vapors and gases.
LI	Langelier Index	An index reflecting the equilibrium pH of water with respect to calcium and alkalinity; used in stabilizing water to control both corrosion and scale deposition.
LIF	Laser Induced Fluorescence	The optical emission from molecules that have been excited to higher energy levels by absorption of electromagnetic radiation.
LLRW	Low Level Radioactive Waste	as any radioactive waste that does not belong in one of the other three categories. Those three categories are (1) high-level waste (spent nuclear fuel or the highly radioactive waste produced if spent fuel is reprocessed), (2) uranium milling residues, and (3) waste with greater than specified quantities of elements heavier than uranium. Examples: ion exchange resins and filter materials used to clean water at a nuclear power plant; contaminated hand tools, components, piping, and other equipment from nuclear power plants and other industries; research equipment from laboratories where radioactive materials are used; shoe covers, lab coats, cleaning cloths, paper towels, etc.; containers, cloth, paper, fluids, and equipment which came in contact with radioactive materials used in hospitals to diagnose or treat disease ;filters from sampling devices used to test for airborne radioactive contamination; scintillation fluids in which filters from some sampling devices must be dissolved in order to determine the amount of radioactive material present; and carcasses of animals treated with radioactive materials used in medical or pharmaceutical research.
LNAPL	Light Non-Aqueous Phase Liquid	A liquid that does not dissolve in water, and so forms a separate phase, which is also lighter than water and therefore floats on the surface. Many petroleum products are LNAPLs.
LOAEL	Lowest Observed Adverse Effect Level	In dose-response experiments, the lowest exposure level at which there are statistically or biologically significant increases in frequency or severity of adverse effects between the exposed population and its appropriate control group.
LOD	Limit of Detection	An analytical figure of merit that, owing to the complex statistics involved, deserves a separate treatment.
LOEL	Lowest Observed Effects Level	The lowest dose or concentration in a toxicity test or biological field survey that causes a statistically significant effect in comparison to the controls or reference site.
LTM	Long Term Monitoring	Site sampling and analysis required to confirm that site cleanup requirements continue to be met after the

Acronym	Glossary	Definition
		Remedial Action (RA) has been accomplished or that site contaminant levels continue to be below concentrations which require RA. LTM does not overlap (in time) with the RA nor with LTO (monitoring is included in RA or LTO in years where either of those phases is programmed).
LTMgt	Long Term Management	occurs after Response Complete (RC) has been achieved at a site. LTMgt is required at sites that have hazardous substances, pollutants or contaminants remaining at the site after RC, which restricts use of the site. This situation often arises when the DON makes the decision to remediate a site to restricted land use (e.g. recreational) risk-based cleanup levels. LTMgt will require long-term monitoring and usually some type of land use control for the site. The land use control may be engineered control or institutional control. The DON is responsible for maintaining land use controls and the long-term monitoring program.
LTO	Long Term Operation	See Remedial Action Operation.
LTTD	Low Temperature Thermal Desorption	An ex situ process that uses either direct or indirect heat exchange to vaporize and/or volatilize contaminants from soil or sludge. The contaminated material is heated to between 300 - 600 degrees fahrenheit
LUC	Land Use Controls	also known as "institutional controls," are defined broadly as legal measures that limit human exposure by restricting activity, use and access to properties with residual contamination.
LUFT	Leaking Underground Fuel Tank	are underground fuel tanks that discharge or release the liquid contained within them (i.e., gasoline, diesel, waste oil, etc.)
LUST	Leaking Underground Storage Tank	a leaking storage tank

ERB Glossary – L

Acronym	Glossary	Definition
	laboratory control sample	A control sample of known composition. Aqueous and solid lab control samples are analyzed using the same sample preparation, reagents, and analytical methods employed for samples received.
	lagoon	1) A shallow pond where sunlight, bacterial action, and oxygen work to purify wastewater; also used for storage of wastewater or spent nuclear fuel rods. 2) Shallow body of water, often separated from the sea by coral reefs or sandbars.
	land application	Discharge of wastewater onto the ground for treatment or reuse. See Infiltration.
	land ban	Phasing out of land disposal of most untreated hazardous wastes, as mandated by the 1984 HSWA amendments to RCRA.
	landfarming	1) A disposal process in which hazardous waste deposited on or in the soil is naturally degraded by

Acronym	Glossary	Definition
		microbes. 2) A bioremediation technology in which contaminated soil or sediment is excavated and spread on a pan with a built-in system to collect any leachate. The soils are periodically turned over to mix air into the waste. Moisture, nutrients, temperature and pH are also controlled to optimize the biodegradation occurring
	landfill	1) Sanitary landfills are disposal sites for non-hazardous solid wastes spread in layers, compacted to the smallest practical volume, and covered by material applied at the end of each operating day. 2) Secure chemical landfills are disposal sites for hazardous waste, selected and designed to minimize the chance of release of hazardous substances into the environment.
	large quantity generator	Person or facility generating more than 2200 pounds of hazardous waste per month. Such generators produce about 90 percent of the nation's hazardous waste, and are subject to all RCRA requirements.
	Lasagna Process	The Lasagna process uses electrokinetics to move contaminants in soil pore water into treatment zones where the contaminants can be captured or decomposed.
	latency	Time from the first exposure of a chemical until the appearance of a toxic effect.
	LC50/Lethal Concentration	Median level concentration, a standard measure of toxicity. It tells how much of a substance is needed to kill half of a group of experimental organisms in a given time. See LD50.
	LD50/ Lethal Dose	The dose of a toxicant that will kill 50 percent of the test organisms within a designated period. The lower the LD50, the more toxic the compound.
	leachate	Water that collects contaminants as it trickles through wastes, pesticides or fertilizers. Leaching may occur in farming areas, feedlots, and landfills, and may result in hazardous substances entering surface water, groundwater, or soil.
	leachate collection system	A system that gathers leachate and pumps it to the surface for treatment.
	leaching	The process by which soluble constituents are dissolved and filtered through the soil by a percolating fluid. See Leachate.
	lead agency	The location where the master copy of the Administrative Record File/Administrative Record is established and maintained, generally the Engineering Field Division/Engineering Field Activity (EFD/EFA).
	leakance	The ratio of vertical hydraulic conductivity and the thickness of a confining bed; this term is used in the flow equations for leaky aquifers with vertical movement.
	leaky aquifer	An aquifer bounded above and below by a semi-permeable layer so that water from the aquifer flows or leaks from the aquifer.
	legal agreement	A means of setting project milestones; current DON environmental cleanup program funding policy requires incorporating relative risk evaluations and DON

Acronym	Glossary	Definition
		environmental restoration funding controls.
	leukogen	A substance that causes leukemia.
	life-cycle design	The designing of a system to maximize operational efficiency throughout the entire operational duration, as opposed to designing for the initial conditions.
	lifetime exposure	Total amount of exposure to a substance that a human would receive in a lifetime (usually assumed to be 70 years).
	lift	In a sanitary landfill, a compacted layer of solid waste and the top layer of cover material.
	ligands	The molecules surrounding a metal ion in a complex ion. See Chelate and Complexation.
	limited degradation	An environmental policy permitting some degradation of natural systems but terminating at a level well beneath an established health standard.
	limiting factor	A condition whose absence or excessive concentration is incompatible with the needs or tolerance of a species or population and which may have a negative influence on their ability to thrive and/or survive.
	limnology	The study of the physical, chemical, hydrological, and biological aspects of fresh water bodies.
	Lindane	A pesticide that causes adverse health effects in domestic water supplies and is toxic to freshwater fish and aquatic life.
	liner	1) A relatively impermeable barrier designed to keep leachate inside a landfill. Liner materials include plastic and dense clay. 2) An insert or sleeve for sewer pipes to prevent leakage or infiltration.
	lipid solubility	The maximum concentration of a chemical that will dissolve in fatty substances. Lipid soluble substances are insoluble in water. They will very selectively disperse through the environment via uptake in living tissue.
	liquefaction	Changing a solid into a liquid.
	listed waste	Wastes listed as hazardous under RCRA but which have not been subjected to the Toxicity Characteristic Listing Procedure because the dangers they present are considered self-evident.
	lithology	The large scale physical characteristics of rocks and sediments.
	lithotroph	An organism that uses inorganic carbon such as carbon dioxide or bicarbonate as a carbon source and an external energy source.
	littoral zone	1) That portion of a body of fresh water extending from the shoreline lakeward to the limit of occupancy of rooted plants. 2) The strip of land along the shoreline between the high and low water levels.
	Lowry Air Force Base	Lowry Air Force Base was located in Denver, Colorado and was closed in 1994.

ERB Acronym and Glossary – M

Acronym	Glossary	Definition
M	data qualifiers - metals analysis - M	Duplicate injection precision not met.
MAC	Maximum Allowable Concentrations	Used in industrial toxicology to define permissible levels of exposure to chemicals.
MACT	Maximum Achievable Control Technology	The maximum degree of reduction in air pollution for new and existing sources, taking into consideration cost, non-air quality health and environmental impacts and energy requirements.
MANOVA	Multi Variate Analysis of Variance	An extension of analysis of variance (or ANOVA) used to accommodate more than one dependent variable. MANOVA measures the group differences between two or more metric dependent variables simultaneously, using a set of categorical non-metric independent variables.
MAROS	Monitoring and Remediation Optimization System	Decision support tool for streamlining data management, conducting spatial and temporal analyses, and data visualization functions to aid in optimizing groundwater long term monitoring networks.
MBTA	Migratory Bird Treaty Act	implements various treaties and conventions between the U.S. and Canada, Japan, Mexico and the former Soviet Union for the protection of migratory birds. Under the Act, taking, killing or possessing migratory birds is unlawful.
MCETP	Marine Corps Environmental Training Program	A program to ensure that training and information are adequately available, highly efficient, and instructionally effective in preparing Marine Corps personnel to perform their environmental and primary job responsibilities competently and/or safely to support Marine Corps environmental objectives.
MCL	Maximum Contaminant Level	The maximum permissible level of a contaminant in water delivered to any user of a public system. MCLs are enforceable standards.
MCLG	Maximum Contaminant Level Goal	Under the Safe Drinking Water Act, a non-enforceable concentration of a contaminant, set at the level at which no known or anticipated adverse effects on human health occur and which allows an adequate safety margin. The MCLG is usually the starting point for determining the regulated Maximum Contaminant Level. See Maximum Contaminant Level.
MCO	Marine Corps Order	to establish and promulgate Marine Corps policy and procedures.
MDL	Method Detection Limit	The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix containing the analyte.
MEK	Methyl Ethyl Keytone	colorless liquid, acetone-like odor; used as a solvent in nitrocellulose coatings and vinyl films, resins, paint removers, cements, and adhesives. Hazard: toxic by inhalation, flammable, dangerous fire risk.
MESO	Marine Environmental Support Office	established to provide consultation, referrals, information, documentation, and field support concerning marine environmental compliance and

Acronym	Glossary	Definition
		assessment to authorized Department of the Navy customers.
MF	Modifying Factor	In toxicity assessments, a number that reflects a professional assessment of additional uncertainties in the critical study and in the entire database for the chemical not explicitly addressed by the uncertainty factors.
Mg	Magnesium	An alkaline earth metal that is very abundant in the environment. Readily forms salts with various metals and halogens. When dissolved in water, it can be used to indicate salinity and alkalinity. Contributes to hard water in high concentrations. It is an essential nutrient for animals and humans. Not generally considered toxic.
mg/kg	milligrams/kilogram - equivalent to ppm	Expressing a concentration in units of milligrams/kilogram is equivalent to expressing the concentration in parts per million by mass or weight.
mg/kg/day	milligram/kilogram/day	Typical daily dose rate is usually expressed as milligram of dose per kilogram of organism body weight per day.
mg/L (mg/l)	milligrams/liter - equivalent to ppm	Expressing a concentration in units of milligrams/liter is equivalent to expressing the concentration in parts per million by volume.
MGD	Million Gallons per Day	a rate of flow of water equal to 133,680.56 cubic feet per day, or 1.5472 cubic feet per second, or 3.0689 acre-feet per day. A flow of one million gallons per day for one year equals 1,120 acre-feet (365 million gallons).
MGP	manufactured gas plant	Common historic facility used for the production of public utility and commercial-grade gas via conversion of coal and/or heavy oil.
MHz	Megahertz	A frequency of one million cycles per second.
mi ²	square mile	Unit of measurement used for area where one square mile is equal to 640 acres.
MILCON	Military Construction	Any construction, alteration, development, conversion, or extension of any kind carried out with respect to a military installation. Also called MILCON.
MIP	membrane interface probe	An instrument that is attached to direct push drilling equipment which allows groundwater to flow across a membrane and be analyzed for volatile organic compounds (VOCs)
mlw	mean low water	Generally there are 2 high tides and 2 low tides each day. These 2 high tides and 2 low tide are different levels and they differ day to day. Low tide averaged over 19 years would be th mean low water.
mm	millimeter	Unit of measurement used for distance where one millimeter would be equal to 0.03937 inch.
mmhos/m	millimhos/meter	Unit of measurement used for conductivity where mhos is the reciprocal of resistivity measured in ohms.
MMPA	Marine Mammal Protection Act	a Federal responsibility to conserve marine mammals with management vested in the Department of Interior for sea otter, walrus, polar bear, dugong, and manatee. The Department of Commerce is responsible for cetaceans and pinnipeds, other than the walrus. With certain specified exceptions, the Act establishes a moratorium on the taking and importation of marine

Acronym	Glossary	Definition
		mammals as well as products taken from them, and establishes procedures for waiving the moratorium and transferring management responsibility to the States.
Mn	Manganese	A brittle metal usually occurring in nature with other metals like iron. It is used in steel alloys, dry-cell batteries, electrical coils, other metallic fabrication applications, oxidizing agents, and as a food additive. It is an essential nutrient but can be harmful to the central nervous system in excessive amounts.
MNA	Monitored Natural Attenuation	refers to the treatment approach of allowing natural processes to reduce contaminant concentrations to acceptable levels. Monitored natural attenuation involves physical, chemical and biological processes that act to reduce the mass, toxicity, and mobility of subsurface contamination.
MNO	Monitoring Network Optimization	Employs a 3-tiered approach to designing well networks - qualitative evaluation (hydrostatigraphy, locations of potential receptors, direction and rate of contaminant migration), Mann-Kendall statistical analysis to determine trends in each well (combined with algorithm to determine frequency), and spatial analysis using geostatistical kriging error predictions.
MOA	Memorandum of Agreement	A grant program to support state participation in federal cleanups.
MOD	Modification (Contracts/Plans)	any change within a contract.
mol	mole	A mass of a compound defined as Avogadro's Number (6.022 X 10 ²³) of atoms or molecules.
MOU	Memorandum of Understanding	A document providing a general description of the responsibilities that are to be assumed by two or more parties in their pursuit of some goal(s). More specific information may be provided in an associated SOW.
MP	Melting Point	The temperature at which a solid changes its phase to a liquid. This temperature is also the freezing point depending on the direction of the change. For mixtures, a melting point range may be given.
MPE	Multiphase Extraction	An enhancement to soil vapor extraction where soil vapor groundwater and sometimes free-phase NAPL are simultaneously withdrawn from an extraction well through the application of a vacuum or a combination of a vacuum and a liquid pump in the same extraction well
MPF	Migration Pathway Factor	A measure of the movement or potential movement of contamination away from the original source.
MPN	Most Probable Number	The most probable number of organisms per unit volume of sample water.
MPPEH	Material Potentially Presenting an Explosive Hazard	Material potentially containing explosives or munitions (e.g., munitions containers and packaging material; munitions debris remaining after munitions use, demilitarization, or disposal; and range-related debris); or material potentially containing a high enough concentration of explosives such that the material presents an explosive hazard (e.g., equipment, drainage systems, holding tanks, piping, or ventilation ducts that were associated with munitions production, demilitarization or disposal operations). Excluded from

Acronym	Glossary	Definition
		MPPEH are munitions within DoD's established munitions management system and other hazardous items that may present explosion hazards (e.g., gasoline cans, compressed gas cylinders) that are not munitions and are not intended for use as munitions.
MPRSA	Marine Protection, Research and Sanctuaries Act	The basic objective of the permit program is to "prevent or strictly limit the dumping into ocean waters of any material that would adversely affect human health, welfare, or amenities, or the marine environment, ecological systems, or economic potentialities.
MR	Munitions Response	Munitions Response actions, including investigation, removal and remedial actions to address the explosives safety, human health, or environmental risks presented by unexploded ordnance (UXO), discarded military munitions (DMM) or munitions constituents (MC).
MRL	ATSDR Minimal Risk Level	Agency for Toxic Substances and Disease Registry Minimal Risk Level an estimate of the daily human exposure to a hazardous substance that is likely to be without appreciable risk of adverse non cancer health effects over a specified duration of exposure.
MS	Mass Spectrometry	An analytical process to determine the relative atomic masses of atoms. A sample is ionized and passed through an electromagnetic field. Different ions can be identified by characteristic patterns. It is often used in conjunction with gas chromatography.
MS	Matrix Spike	The process of adding a known amount of analyte to a sample and analyzing the sample. The amount of analyte recovered is calculated as a percent recovery. This technique is used to assess accuracy of analysis.
MSD	Matrix Spike Duplicate	A second matrix spike is compared to the results of the first matrix spike to assess precision of the analysis.
MSDS	Material Safety Data Sheet	A compilation of information required under the OSHA Communication Standard on the identity of hazardous chemicals, health, and physical hazards, exposure limits, precautions, and handling information. Section 311 of SARA requires facilities to submit MSDSs under certain circumstances.
MSL or msl	Mean Sea Level	The average height of the sea surface, based upon hourly observation of the tide height on the open coast or in adjacent waters that have free access to the sea. In the United States, it is defined as the average height of the sea surface for all stages of the tide over a nineteen year period. Mean sea level, commonly abbreviated as MSL and referred to simply as "sea level," serves as the reference surface for all altitudes in upper atmospheric studies.
MSW	Municipal Solid Waste	non-hazardous, non-agricultural solid waste generated by residences, businesses, and institutions.
MTBE	Methyl Tertiary Butyl Ether	is a chemical compound which contains oxygen and is often added to gasoline to boost its octane or to meet clean fuel oxygen requirements (i.e., reformulated gasoline and winter oxygenate gasoline).
MW	Molecular Weight	(mass) The sum of atomic masses (in atomic mass units 1 amu = mass of 12C atom as standard) of the atoms

Acronym	Glossary	Definition
		present in a molecule.
MW	Monitoring Well	1) A well used to obtain water quality samples or measure groundwater levels. 2) Well drilled at a hazardous waste management facility or Superfund site to collect groundwater samples for the purpose of physical, chemical, or biological analysis to determine the amounts, types, and distribution of contaminants in the groundwater beneath the site.

ERB Glossary – M

Acronym	Glossary	Definition
	macrofauna	A general term referring to benthic organisms more than 1 mm in size.
	magnetic separation	Use of magnets to separate ferrous materials from mixed municipal waste streams.
	manifest	The form used for identifying the quantity, composition, and the origin, routing, and destination of hazardous waste during its transportation from the point of generation to the point of disposal, treatment, or storage.
	manifest system	A procedure in which hazardous materials are identified and tracked as they are produced, treated, transported, and disposed of by a series of permanent, linkable, descriptive documents (e.g., manifests).
	Mare Island	Mare Island Naval Shipyard is located west of the City of Vallejo in Northern California and was closed in 1996 in accordance with the Base Realignment and Closure Commission of 1993.
	margin of safety	Maximum amount of exposure producing no measurable effect in animals (or studied humans) divided by the actual amount of human exposure in a population.
	Mariana Islands	Guam is a island in the Western Pacific, one of the Northern Marianas. It is home to Andersen Air Force Base and U.S. Naval Forces Marianas.
	marsh	A type of wetland that does not accumulate appreciable peat deposits and is dominated by herbaceous vegetation. Marshes may be either fresh or saltwater, tidal or non-tidal. See Wetlands.
	mass removal	Extraction of contamination from the subsurface (usually in the source zone) measured in mass.
	mass removal rate	The amount of material removed per unit time.
	mass transfer	The movement or destruction of contaminant mass from the subsurface via advection, diffusion, stripping, or degradation.
	matrix	The predominant material comprising the sample to be analyzed. The most common matrices are water, soil/sediment, and sludge.
	maximum tolerated dose	The maximum dose that an animal species can tolerate for a major portion of its lifetime without significant

Acronym	Glossary	Definition
		impairment or toxic effect other than carcinogenicity.
	Mayport	Naval Station Mayport is located in Jacksonville, Florida
	MCB Camp Lejeune	Marine Corps Base, Camp Lejeune is located in eastern North Carolina on the Atlantic coast.
	MCB Hawaii	Marine Corps Base, Hawaii Kaneohe Bay is located on the eastern side of Oahu, approximately 12 miles northeast of Honolulu..
	measurement endpoint	Quantitative expressions of an observed or measured effect of Environmental Contaminants of Concern. They may be identical to assessment endpoints (e.g., measurement of abundance of fish), or they may be used as surrogates for assessment endpoints (e.g., toxicity test endpoints).
	measurement error	The difference between the true or actual state and that which is reported from measurements; also known as measurement variability.
	mechanical aeration	Use of mechanical energy to inject air into water to cause a waste stream to absorb oxygen.
	mechanical stress	The result of a transfer of energy when one object physically contacts or collides with another. Indications would be punctures, gouges, breaks, or tears in the container.
	media	Specific environments, i.e., air, water, or soil, which are the subject of regulatory concern and activities.
	media-specific half-life	Provides a relative measure of the persistence of a chemical in a given medium, although actual values can vary greatly depending on site-specific conditions. The greater the half-life, the more persistent a chemical is likely to be.
	medical surveillance	A periodic comprehensive review of a worker's health status; acceptable elements of such surveillance program are listed in the Occupational Safety and Health Administration standards for asbestos.
	mesotrophic	Reservoirs and lakes which contain moderate quantities of nutrients and are moderately productive in terms of aquatic animal and plant life.
	metabolic byproduct	A product of the reaction between an electron donor and an electron acceptor. Metabolic byproducts include volatile fatty acids, daughter products of chlorinated aliphatic hydrocarbons, methane, and chloride.
	metabolic intermediate	A chemical produced by one step in a multistep biotransformation.
	metabolism	The chemical reactions in living cells that convert food sources to energy and new cell mass.
	metabolites	Any substances produced by biological processes, such as those from pesticides.
	Metals Analysis, flags differing from organic analysis	placeholder for Metals Analysis entry
	meteorology	The science that deals with the atmosphere and atmospheric phenomena; the study of weather.
	methanogen	A microorganism that exists in anaerobic environments and produces methane as the end product of its

Acronym	Glossary	Definition
		metabolism. Methanogens use carbon dioxide or simple carbon compounds such as methanol as an electron acceptor.
	methanol	An alcohol that can be used as an alternative fuel or as a gasoline additive. It is less volatile than gasoline; when blended with gasoline it lowers the carbon monoxide emissions but increases hydrocarbon emissions. Used as pure fuel, its emissions are less ozone-forming than those from gasoline.
	method (analytical) qualifier	Symbols added as a suffix to analytical results to identify the analytical method used to measure the analyte:
	method blank	Contaminant free water, or appropriate matrix, that is taken through the entire analytical process to determine if there is any contamination associated with the analytical procedures.
	Methoxychlor	Pesticide that causes adverse health effects in domestic water supplies and is toxic to freshwater and marine aquatic life.
	microbial growth	The activity and growth of microorganisms such as bacteria, algae, diatoms, plankton, and fungi.
	microclimate	The localized climate conditions within an urban area or neighborhood.
	microcosm	A laboratory vessel set up to resemble as closely as possible the conditions of a natural environment.
	microorganism	Living organisms so small that individually they can usually only be seen through a microscope.
	microsparger	An in-well probe that aerates groundwater and captures the vapor for VOC analysis.
	migration pathway	A pathway by which a hazardous material is transported at, or from, a disposal site.
	mineralization	The complete conversion of an organic compound to inorganic products (principally water and carbon dioxide).
	mining of an aquifer	Withdrawal of groundwater over a period of time that exceeds the rate of recharge to the aquifer.
	miscible	Two or more liquids or gases that can be mixed and will remain mixed under normal conditions, e.g., alcohol and water. Antonym - Immiscible.
	missed detection	The situation that occurs when a test indicates that a tank is "tight" when in fact it is leaking.
	mitigation	Measures taken to reduce adverse impacts on the environment.
	mixed waste	Waste that contains both hazardous waste and source, special nuclear, or by-product material subject to the Atomic Energy Act of 1954.
	mobile incinerator system	Hazardous waste incinerators that can be transported from one site to another.
	mobile source	Any non-stationary source of air pollution such as cars, trucks, motorcycles, buses, airplanes, locomotives, etc.
	modeling	An investigative technique using a mathematical or physical representation of a system or theory that

Acronym	Glossary	Definition
		accounts for all or some of its known properties. Models are often used to test the effect of changes of system components on the overall performance of the system.
	Moffett Field NAS	Moffett Field NAS was located north of San Jose adjacent to San Francisco Bay and was closed in 1994
	molecule	The smallest division of a compound that still retains or exhibits all the properties of the substance.
	monitoring	1) Periodic or continuous surveillance or testing to determine the level of compliance with statutory requirements and/or pollutant levels in various media or in humans, plants, and animals. 2) Used to track the presence, migration, or threat posed by contaminants at a site; may be used at a site between response actions or when no other response action is appropriate until information or site status changes.
	monitoring point	Surveyed location where collection of data on contaminants in different environmental media (i.e., air, surface water, groundwater, sediments, soils) is performed to determine extent and impact of effectiveness of a cleanup action
	monooxygenase	A microbial enzyme that catalyzes reactions in which one atom of the oxygen molecule is incorporated into a product and the other atom appears in water.
	Monte Carlo Simulation	A procedure to estimate the value and uncertainty of the result of a calculation when the result depends on a number of factors, each of which is also uncertain.
	morbidity	Rate of disease incidence.
	mud rotary drilling	Drilling method which uses the viscosity and the uphole velocity of the drilling fluid to remove cuttings from the borehole.
	mudballs	Round material that forms in filters and gradually increases in size when not removed by backwashing.
	mulch	A layer of material (wood chips, straw, leaves, etc.) placed around plants to hold moisture, prevent weed growth, and enrich or sterilize the soil.
	multiple use	Use of land for more than one purpose; i.e., grazing of livestock, watershed and wildlife protection, recreation, and timber production. Also applies to use of bodies of water for recreational purposes, fishing, and water supply.
	mutagen	An agent that causes a permanent genetic change or transformation in a cell other than that which occurs during normal genetic recombination.
	mutagenicity	The capacity of a chemical or physical agent to cause permanent alternation.

ERB Acronym and Glossary – N

Acronym	Glossary	Definition
N	data qualifiers - metals analysis - N	Spiked sample recovery not within control limits.
N	data qualifiers - organic analysis - N	Presumptive evidence of presence, TIC.
N	Nitrogen	Can exist as a gas or dissolved in solution, nitrogen forms various environmentally significant compounds with oxygen.
n	porosity	1) Degree to which soil, gravel, sediment or rock is permeated with pores or cavities through which water or air can move. 2) The ratio of the volume of the openings in a rock to the total volume of the rock.
NA	Natural Attenuation	Refers to naturally-occurring processes in soil and groundwater environments that act without human intervention to reduce the mass, toxicity, mobility, volume, or concentration of contaminants in those media. These in-situ processes include biodegradation, dispersion, dilution, adsorption, volatilization, and chemical or biological stabilization or destruction of contaminants.(USEPA OSWER, 1996)
Na	Sodium	An alkali metal that can form various salts with halogens and metals. Its dissolved concentration in water can be used to indicate salinity. It is very abundant in nature. Not generally considered toxic.
NAAQS	National Ambient Air Quality Standards	The allowable concentrations of air pollutants in the ambient (public outdoor) air specified in 40 CFR 50. National ambient air quality standards are based on the air quality criteria and divided into primary standards (allowing an adequate margin of safety to protect the public health) and secondary standards (allowing an adequate margin of safety to protect the public welfare). Welfare is defined as including (but not limited to) effects on soils, water, crops, vegetation, human-made materials, animals, wildlife, weather, visibility, climate, and hazards to transportation, as well as effects on economic values and on personal comfort and well-being.
NABLC	Naval Amphibious Base Little Creek	The Naval Amphibious Base, Little Creek VA (NABLC), is a major operating base for Amphibious Forces in the United States.
NACIP	Navy Assessment and Control Of Installation Pollutants	The original Navy environmental restoration program, replaced by the Installation Restoration Program in 1986.
NAEC	Naval Aviation Engineering Center	Naval Aviation Engineering Center (NAEC) is now the Naval Air Technical Data and Engineering Service Center (NATEC).
NAGPRA	Native American Graves Protection and Repatriation Act	The Native American Graves Protection and Repatriation Act (NAGPRA) provides a process for museums and Federal agencies to return certain Native American cultural items to descendants, affiliated Indian tribes, and native Hawaiian organizations.
NAPALM	Naphthene Palmitate	A gasoline-based flammable substance used in warfare.
NAPL	Non-Aqueous Phase Liquid	Non-Aqueous Phase Liquid (NAPL) are contaminants that remain undiluted as the original bulk liquid in the

Acronym	Glossary	Definition
		subsurface, e.g. spilled oil.
NAS	Naval Air Station	Naval Air Stations (NAS) are shore facilities providing the Department of the Navy full service support for Navy aircraft operations and maintenance and also provide pilot qualifications training.
NAVFAC	Naval Facilities Engineering Command	The Naval Facilities Engineering Command (NAVFAC) is a Navy System Command that manages the planning, design and construction of shore facilities for the U.S. Navy activities around the world.
NAVFAC Atlantic		Naval Facilities Engineering Command Atlantic (NAVFAC Atlantic) serves as the Navy's facilities and installations engineering experts throughout the continental United States, Europe, Africa, and Southwest Asia; serving the Navy and Marine Corps Team, Unified Commands, DoD and other Federal Agencies.
NAVFAC Hawaii		
NAVFAC MidLant	NAVFAC MidAtlantic	
NAVFAC Northwest		
NAVFAC Pacific		Naval Facilities Engineering Command Pacific (NAVFAC Pacific) serves as the Navy's facilities and installations engineering experts throughout the Pacific, Hawaii, Far East, and Marianas area; serving the Navy and Marine Corps Team, Unified Commands, DoD and other Federal Agencies.
NAVFAC Southeast		
NAVFAC Southwest		
NAVFAC Washington		
NAVOSH	Naval Occupational Safety and Health program	The Navy's Naval Occupational Safety and Health (NAVOSH) Program is identified in OPNAVINST 5100.23E, a Navy wide instruction.
NAVPHIBASE	Naval Amphibious Base	A Naval Amphibious Base (NAVPHIBASE), under Department of the Navy, is a major operating base for Navy and Marine Corps Amphibious Forces.
NAVSEASYSC OM	Naval Sea Systems Command	The Naval Sea System Command (NAVSEA) engineers, builds and supports America's fleet of ships and combat systems and manages more than 130 Acquisition Programs.
NBS	National Biological Survey	The Department of the Interior's newest bureau, created by consolidating the biological research, inventory and monitoring, and information transfer programs of seven Interior bureaus. The mission of the NBS is to serve as the non-regulatory biological research arm of the Interior Department and to provide leadership in gathering, analyzing, and disseminating the biological information necessary to support the sound management of the Nation's natural resources. The NBS is modeled after the U.S. Geological Survey, which was created in

Acronym	Glossary	Definition
		response to the demands of industry and conservationists for accurate baseline scientific data.
NC	data qualifiers - method (analytical) qualifier - NC	Not calculated as per protocols.
NCA	Noise Control Act	The Noise Control Act (NCA) gives government agencies the right to promulgate standards and regulations relating to abatement of noise emissions, i.e., the requirement that autos and like vehicles must have compliant mufflers.
NCC	National Climatic Center	The world's largest active archive of weather data. NCDC produces numerous climate publications and responds to data requests from all over the world. NCDC operates the World Data Center for Meteorology which is collocated at NCDC in Asheville, North Carolina, and the World Data Center for Paleoclimatology which is located in Boulder, Colorado.
NCEA	National Center for Environmental Assessment	tracks progress and research results on funded research projects. View our results by searching our progress reports and investigator publications.
NCEL	Naval Civil Engineering Laboratory	The Naval Civil Engineering Laboratory (NCEL) merged into the Naval Facilities Engineering Service Command, Port Hueneme, CA.
NCLP	National Contract Laboratory Program	supports a major portion of the sample analysis needs of the EPA Superfund Program. Samples are collected by both EPA and contractor personnel and are submitted to an assigned contract laboratory for Routine Analytical Service (RAS) analysis. The laboratory analyzes the samples according to specified analytical protocols, assembles a data package, and submits the package to the Science and Ecosystem Support Division, Athens, Georgia. The data package is given a technical quality assurance review (validation) and a report of this review is prepared. The validated data are entered into the Region IV Laboratory Information Management System with final data reports being generated by this system.
NCP	National Oil and Hazardous Substances Contingency Plan	40 Code of Federal Regulations 300 establishes EPA's response policy and lays out the key response steps for implementing CERCLA. The regulation guides determination of the sites to be corrected under both the Superfund program and the program to prevent or control spills into surface waters or elsewhere.
NCP	National Oil and Hazardous Substances Pollution Contingency Plan	40 Code of Federal Regulations 300, the NCP, establishes EPA's response policy and lays out key response steps for implementing CERCLA.
NCWQ	National Commission on Water Quality	charged with determining the technological, economic, social and environmental aspects of restoring and maintaining the purity of the nation's water supply. The series includes regional and industry studies of water use and water pollution issues, and models and recommendations for improvements.
ND	Non Detect	Tables and statistical comparisons are prepared using half the reported detection limits to estimate concentrations of contaminants that are below detection levels.

Acronym	Glossary	Definition
NDIR	Nondispersive Infrared Analysis	Analysis uses a reference cell sealed with the measuring component or other gases having absorption spectrum identical with the measuring component, and detects the change in the absorption of infrared rays at particular wavelength in a sample cell.
NDWAC	National Drinking Water Advisory Council	the Council, comprising members of the general public, state and local agencies, and private groups concerned with safe drinking water, advises the EPA Administrator on everything that the Agency does relating to drinking water.
ne or nef	effective porosity for flow	Represents the interconnected porosity of a material. In a porous material, some void spaces may be saturated but are not able to transmit water, and so are not available for flow. These spaces represent dead zones of immobile water. nef corrects the porosity (n) of a material to account for these dead spaces.
NEBBS	Naval Environmental Bulletin Board System	Was a module that was part of the EQIS Program but the module never matured.
NECIS	Naval Environmental Compliance Information System	Was a module that was part of the EQIS Program but the module never matured.
NEDD	Naval Electronic Data Deliverable	Standard formatted tables for all IR data typically collected.
NEESA	Naval Energy and Environmental Support Activity, now NFESC	The Naval Energy and Environmental Support Activity (NEESA) merged into the Naval Facilities Engineering Service Center, Port Hueneme, CA
NEHC	Navy Environmental Health Center	The Navy Environmental Health Center (NEHC) mission is to ensure Navy and Marine Corps readiness in prevention of disease and promotion of health.
NELP	Navy Environmental Leadership Program	Chief of Naval Operations established the Navy Environmental Leadership Program (NELP) to find new and innovative ways to manage Navy environmental programs.
NEPA	National Environmental Policy Act	an Act to establish a national policy for the environment, to provide for the establishment of a Council on Environmental Quality, and for other purposes. The purposes of this Act are: To declare a national policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nation; and to establish a Council on Environmental Quality.
NEPDB	Naval Environmental Protection Data Base	The Naval Environmental Protection Data Base is no longer in use.
NEPSS	Naval Environmental Protection Support Service	The Naval Environmental Protection Support Service (NEPSS) is a Naval Facilities Engineering Systems Command administered Navy wide Environmental Program supporting air, land and water environmental issues.
NERRTS	Navy Environmental Regulatory Requirements Tracking System	Was a module that was part of the EQIS Program but the module never matured.

Acronym	Glossary	Definition
NESHAP	National Emission Standard for Hazardous Air Pollutants	The Clean Air Act (CAA) requires the U. S. Environmental Protection Agency (EPA) to develop and enforce regulations to protect the general public from exposure to airborne contaminants that are known to be hazardous to human health. In accordance with Section 112 of the CAA, EPA established National Emissions Standards for Hazardous Air Pollutants (NESHAP) to protect the public.
NETTS	National Environmental Technology Test Site	were established under, and are funded by, the Department of Defense Strategic Environmental Research and Development Program (SERDP). The purpose of the NETTS is to demonstrate reliable, cost-effective, and proven cleanup technologies able to meet DoD contaminant characterization and remediation goals. The Naval Base Ventura County (NBVC), Port Hueneme Site, California, along with two other DoD NETTS, located at Dover Air Force Base, Delaware and at the former McClellan Air Force Base, California, provide a network of well-characterized test sites where technologies can be field-tested under known conditions against established standards. Innovative in situ and ex situ characterization and remediation technologies are being demonstrated on contaminated soil, sediments, soil vapors, and groundwater. The NETTS objectives are to promote ascertainment of information needed by users, regulators and the public, and provide uniform evaluation criteria in order to report reliable, cost-effective, proven technologies. The NETTS NBVC Port Hueneme Site is one of the leading test and evaluation locations for fuel hydrocarbon (gasoline, diesel and/or heavy fuel oil) characterization and remediation.
NEX	Naval Exchange	The Naval Exchange (NEX) is located within Naval Regions to provide commercial products and services for sale to military personnel and their dependents.
NFA	No Further Action	Applies to any site where the possibility of contamination no longer exists and, therefore, will require no additional remedial action.
NFESC	Naval Facilities Engineering Service Center	The Naval Facilities Engineering Service Center (NFESC), Port Hueneme, CA provides Navy Amphibious, Energy, Environmental, Ocean and Shore support.
NFPA	National Fire Protection Association	the objective is to reduce the worldwide burden of fire and other hazards on the quality of life by providing and advocating scientifically-based consensus codes and standards, research, training and education.
NFRAP	No Further Response Action Planned	CERCLA sites that do not warrant moving further in the site evaluation process; a site that does not pose significant threat to public health or the environment; decision must be documented and may be reversible if future information reveals additional remedial action is warranted. The Navy forwards the decision document to the regulators for concurrence.
NH4	Ammonium	The univalent chemical ion NH ₄ ⁺ , derived from ammonia, whose compounds chemically resemble the alkali metals.

Acronym	Glossary	Definition
NHPA	National Historic Preservation Act	The National Historic Preservation Act, signed over 50 years ago, is responsible for preserving over 104 million acres including over 600 wilderness areas of federal public lands.
Ni	Nickel	A hard, malleable, ductile metal. It occurs naturally in all parts of the environment including plants and animals. It is used in alloys, electrical catalysts for hydrogenation of oils, coins, and magnetic and electrical contacts. Nickel can be soluble or insoluble in water depending on the chemical and physical properties of the water body. In soil, it is extremely persistent. It can cause dermatitis, and ingestion can cause nausea and vomiting. Nickel is a Group A, human carcinogen.
NIOSH	National Institute for Occupational Safety and Health	The National Institute for Occupational Safety and Health (NIOSH) conducts research to reduce work-related illnesses and injuries and promote safe and healthy workplaces.
NIRIS	Naval Installation Restoration Information Solution	NIRIS is NAVFAC's corporate Installation Restoration solution for IR Data Management and GIS. NIRIS is a web-based system of computer software, hardware, data, and personnel to help analyze, manage, and present information that is referenced to a spatial location.
NIST	National Institute for Standards and Technology (formerly NBS)	The National Institute for Standards and Technology Standard Reference Group (NIST) provides well-documented numeric data to scientists and engineers for use in technical problem-solving research and development.
NJ	data qualifiers - organic analysis - NJ	Estimated concentration of a TIC.
NMFS	National Marine Fisheries Service (U.S. Dept. of Commerce)	Now call the NOAA Fisheries Service the organization is responsible for the management, conservation, and protection of living marine resources within the U.S. Exclusive Economic Zone.
NNPP	Naval Nuclear Propulsion Program	DO WE WANT TO ADD THIS?
NO	Nitric Oxide	A gas formed by combustion under high temperature and high pressure in an internal combustion engine; changes into nitrogen dioxide in the ambient air and contributes to photochemical smog.
NO2	Nitrite	1) An intermediate in the process of nitrification. 2) Nitrous oxide salts used in food preservation.
NO2, gaseous	Nitrogen Dioxide	The result of nitric oxide combining with oxygen in the atmosphere; major component of photochemical smog.
NO3	Nitrate	1) A salt or ester of nitrous acid. Concentrations greater than 45 ppm can be toxic. 2) Intermediate breakdown product of biological wastes. Common component of nutrient loading in aquatic environments. 3) Vital nutrient for plant growth. 4) Inorganic fertilizer that enters water supply sources from septic systems, animal feed lots, agricultural fertilizers, manure, industrial waste waters, sanitary landfills and garbage dumps.
NOAA	National Oceanic and Atmospheric Administration	The National Oceanic and Atmospheric Administration (NOAA) primary responsibility within the Federal

Acronym	Glossary	Definition
		Government is to routinely provide climate forecasts and products to the Nation.
NOAEL	No Observed Adverse Effect Level	1) In dose-response experiments, an exposure level at which there are no statistically or biologically significant increases in the frequency or severity of adverse effects between the exposed population and its appropriate control; some effects may be produced at this level, but they are not considered to be adverse, nor precursors to specific adverse effects. In an experiment with more than one NOAEL, the regulatory focus is primarily on the highest one, leading to the common usage of the term NOAEL to mean the highest exposure level without adverse effects. 2) From long-term toxicological studies of agriculture chemical active ingredients, levels which indicate a safe, lifetime exposure level for a given chemical. Used to establish tolerance for human diets.
NOEL	No Observed Effect Level	In dose-response experiments, an exposure level at which there are no statistically or biologically significant increases in the frequency or severity of any effect between the exposed population and its appropriate control.
NOI	Notice of Intent	A request for information in order to comply with regulatory requirements.
NOID	Notice of Intent to Delete	EPA notice published in the Federal Register to notify the public of its intent to delete a site or sites from the National Priority List.
NON	Notice of Non-compliance	A notice issued by a Regulatory Agency making the offender aware that a regulatory violation was noted and observed, citing the applicable regulations and explaining the regulation requirements (method of correction).
NOSC	Naval Ocean Systems Center	The Naval Ocean Systems Center (NOSC) provides specialized aquatic technical environmental support under the Space and Warfare System Center, San Diego, CA
NOSC	Naval On-Scene Coordinator	The Naval On-Scene Coordinator (NOSC) is the Navy Official predestinated to coordinate Navy oil and hazardous substance (OHS) pollution contingency planning and direct Navy OHS pollution response efforts in the reassigned area.
NOV	Notice of Violation	A Notice of Violation (NOV) is an enforcement action issued by the EPA when violations of environmental laws and regulations are detected.
Nox	Nitrogen Oxide	Product of combustion from transportation and stationary sources and a major contributor to the formation of ozone in the troposphere and to acid deposition.
NPDES	National Pollutant Discharge Elimination System	A provision of the Clean Water Act which prohibits discharge of pollutants into waters of the United States unless a special permit is issued by EPA, a state, or, where delegated, a tribal government on an Indian reservation.
NPL	National Priorities List	The list, compiled by EPA pursuant to CERCLA section 105, of uncontrolled or abandoned hazardous substance

Acronym	Glossary	Definition
		releases in the U.S. that are priorities for long-term remedial evaluation and response. The NPL is a compilation of sites scoring 28.5 or higher on the EPA HRS or HRS2. EPA is required to update the NPL at least once a year. A site must be on the NPL to receive money from the Trust Fund for remedial action.
NPS	National Park Service (Dept. of Interior)	The National Park Service (NPS) promotes and regulates the use of Natural Parks by conservation of scenery and natural and historic objects and wild life and provides for public enjoyment.
NPV	net present value	The net current value of cash flow(s) obtained by discounting based on a particular rate of return
NR	data qualifiers - method (analytical) qualifier - NR	The analyte is not required to be analyzed.
NR	Natural Resource	As defined by CERCLA, land, fish, wildlife, biota, air, water, groundwater, drinking water supplies, and other such resources belonging to, managed by, held in trust by, appertaining to, or otherwise controlled by the U.S., including the resources of the fishery conservation/zone established by the Magnuson Fishery Conservation and Management Act of 1976, any State or local government, any foreign government, any Indian Tribe, or, if such resources are subject to a trust restriction on alienation, any member of an Indian Tribe.
NRC	National Research Council	The National Research Council (NRC), part of the National Academies, is a private, nonprofit institution that provides science, technology and health policy advice to the federal government.
NRC	National Response Center	The federal operations center that receives notifications of all releases of oil and hazardous substances into the environment; open 24 hours a day, it is operated by the US Coast Guard, which evaluates all reports and notifies the appropriate agency.
NRD	Natural Resources Damages	Natural Resources Damages (NRD) is the amount of money sought by a Natural Resource Trustee as compensation for injury, destruction, or loss of natural resources as defined in CERCLA.
NRDA	Natural Resource Damage Assessment	A damage assessment conducted by one or more trustees if response action will not sufficiently restore or protect natural resources damaged by release. The purpose is to determine the appropriate level of compensation from a responsible party to trustee resources.
NRI	Natural Resource Injury	The National Resources Trustees are responsible for developing and implementing a plan for the restoration of National Resource Injury (NRI) for land and/or wildlife injury or damage .
NRT(s)	National Resources Trustees	Federal trustees with statutory responsibilities with regard to protection or management of natural resources or stewardship responsibilities as a manager of Federally owned land; trustees may also be state agencies of Indian tribes.
NRT	National Response Team	Representatives of 13 federal agencies that, as a team, coordinate federal responses to nationally significant

Acronym	Glossary	Definition
		incidents of pollution - an oil spill, a major chemical release, or a Superfund response action - and provide advice and technical assistance to the responding agency(ies) before and during a response action.
NSDWR	National Secondary Drinking Water Regulations	National Secondary Drinking Water Regulations (NSDWR) are identified under Federal Regulatory Requirements listed in 40 CFR part 141.
NSF	National Science Foundation	The National Science Foundation (NSF) is an independent Government agency to promote the progress of science; advance national health, prosperity, and welfare; and secure the National Defense through uniting the efforts government and private industry research.
NSY	Naval Shipyard	Naval Shipyards (NSY) under the System Command of NAVSEA, provide ship repair and modification support to United States military ships and surface craft.
NTIS	National Technical Information Service	The National Technical Information Service (NTIS), under the Department of Commerce, serves as the largest central resource for government-funded scientific, technical, engineering, and business related information available.
NTP	Navy Training Plan	Changed to The Navy Training (System) Plan (NTSP), the Plan identifies the training requirements including personnel and courses necessary to support the Navy Environmental and Natural Resources program (ENRP).
NTR	Navy Technical Representative	The Navy Technical Representative (NTR) is the Contracting Officers representative providing technical direction for the Statement of Work contract and monitors progress and quality of contractor performance.
NWI	National Wetland Inventory	The National Wetlands Inventory (NWI), managed under the U.S. Fish & Wildlife Service, provides information on the characteristics, extent, and status of the Nations wetlands and deepwater habitats.
NWIRP	Naval Weapons Industrial Reserve Plant	Naval Weapons Industrial Reserve Plants (NWIRP) are naval facilities involved in the manufacture/production of ordnance for strategic use by the U.S. Armed Forces.
NWS	Naval Weapons Station	A Naval Weapons Station (NWS) is a military installation who's primary function is to provide ordnance support for the Department of the Navy.
NZVI	Nanoscale Zero Valent Iron	Iron particles with diameters in the nanometer (10 ⁻⁹ meter) range.

ERB Glossary – N

Acronym	Glossary	Definition
	NAB Little Creek	Naval Amphibious Base Little Creek is located northeast of Norfolk, Virginia. It is the largest amphibious base of its kind.

Acronym	Glossary	Definition
	NAS Brunswick	Naval Air Station Brunswick is located in Brunswick, Maine.
	NAS Fallon	Naval Air Station Fallon is located in Fallon, Nevada.
	NAS North Island	Naval Air Station North Island is located at the northern tip of Coronado, west of San Diego.
	National Estuary Program	A program established under the Clean Water Act Amendments of 1987 to develop and implement conservation and management plans for protecting estuaries and restoring and maintaining their chemical, physical, and biological integrity, as well as controlling point and nonpoint pollution sources.
	natural background	Chemicals in the environment attributable to nonanthropogenic activities (e.g., naturally-occurring hydrocarbons).
	naturally-occurring chemicals	Chemicals whose presence is not attributable to anthropogenic activities.
	navigable waters	1) As defined by 40 CFR 110.1, the waters of the U.S., including the territorial seas. The term includes: A) All waters that are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters that are subject to the ebb and flow of the tide; B) Interstate waters, including interstate wetlands; C) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, and wetlands, the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters: a) That are or could be used by interstate or foreign travelers for recreational or other purposes; b) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; c) That are used or could be used for industrial purposes by industries in interstate commerce; D) All impoundments of waters otherwise defined as navigable waters under this section; E) Tributaries of waters identified in A) through D) of this definition, including adjacent wetlands; and F) Wetlands adjacent to waters identified in A) through E) of this definition provided that waste treatment systems (other than cooling ponds meeting the criteria of this paragraph) are not waters of the U.S. 2) Traditionally, waters sufficiently deep and wide for navigation by all, or specified vessels; such waters in the United States come under federal jurisdiction and are protected by certain provisions of the Clean Water Act.
	Navy source	A source of contamination that is a result of Navy or Marine Corps operations
	necrosis	Death of plant or animal cells or tissues. In plants, necrosis can discolor stems or leaves or kill a plant entirely.
	nephelometric	A means of measuring turbidity in a sample by passing light through a sample and measuring the amount of light deflected.
	neritic	The coastal sea from the low tide line to a depth of 100 fathoms, generally waters of the continental shelf.

Acronym	Glossary	Definition
	neutralization	1) Decreasing the acidity or alkalinity of a substance by adding alkaline or acidic materials, respectively. 2) The process of neutralizing a hazardous material spill by applying another material to the spill which will react chemically with it to form a less harmful substance. 3) Treatment of corrosive hazardous wastes to yield a pH near 7.
	neutralizing agents	Those materials which can be used to neutralize the effects of a corrosive material.
	nitrate-reduction	The biological process in which NO ₃ ⁻ serves as the primary electron acceptor for electron transport in microorganisms; nitrate-reducing condition is the redox level where nitrate reduction can occur.
	nitrification	The process whereby ammonia in wastewater is oxidized to nitrite and then to nitrate by bacterial or chemical reactions.
	no till	Planting crops without prior seedbed preparation, into an existing cover crop, sod, or crop residues, and eliminating subsequent tillage operations.
	noble metal	Chemically inactive metal such as gold; does not corrode easily.
	non-carcinogen	A chemical classification for the purposes of risk assessment based on either inadequate toxicological data or no evidence of carcinogenicity according to USEPA 1986 Guidelines for Risk Assessment, in which non-carcinogens are summarized as follows: Group D: Not classifiable as to human carcinogenicity: Inadequate human and animal evidence for carcinogenicity or no available data. Group E: Evidence of non-carcinogenicity in humans: No evidence for carcinogenicity in at least two adequate animal tests or in both adequate human epidemiological and animal studies.
	non-conventional pollutant	Any pollutant not statutorily listed or which is poorly understood by the scientific community.
	non-degradation	An environmental policy which disallows any lowering of naturally occurring quality regardless of preestablished health standards.
	non-flowing artesian well	An artesian well in which the head is not sufficient to raise water to the land surface at the well site.
	non-Navy source	A source of contamination that is not a result of Navy or Marine Corps operations
	non-point source	Diffuse pollution sources (i.e., without a single point of origin or not introduced into a receiving stream from a specific outlet). The pollutants are generally carried off the land by storm water. Common nonpoint sources are agriculture, forestry, urban, mining, construction, dams, channels, land disposal, saltwater intrusion, and city streets.
	nonpolar	Describing a substance or molecule in which the positive and negative electrical charges coincide, as opposed to polar molecules in which the charges are permanently separated. Nonpolar substances are generally insoluble and immiscible in water, because

Acronym	Glossary	Definition
		water is polar. Most hydrocarbon liquids are nonpolar.
	non-potable	Water that is unsafe or unpalatable to drink because it contains objectionable pollution, contamination, minerals, or infective agents.
	North Island	Naval Air Station North Island is located at the northern tip of Coronado, west of San Diego.
	notice of deficiency	An EPA request to a facility owner or operator requesting additional information before a preliminary decision on a permit application can be made.
	notice of intent to deny	Notification by EPA of its preliminary intent to deny a permit application.
	nucleophile	A chemical reagent that reacts by forming covalent bonds with electronegative atoms and compounds.
	nugget effect	Measurement error caused by presence of a small mass of very high-concentration that introduces bias into the analysis, reducing representativeness; in statistics: a plot of the experimental semivariogram that has a discontinuity at $h=0$.
	nutrient	Any substance assimilated by living things that promotes growth. The term is generally applied to nitrogen and phosphorus in wastewater, but is also applied to other essential and trace elements.
	nutrient amendment	Chemical or organic fertilizer, usually rich in nitrogen, phosphorus, or potassium, that is added to support the life and growth of microorganisms in a biopile or other application.
	nutrient pollution	Contamination of water resources by excessive inputs of nutrients. In surface waters, excess algal production is a major concern.

ERB Acronym and Glossary – O

Acronym	Glossary	Definition
O	Oxygen	Can exist as a gas or dissolved in solution. Oxygen forms various inorganic compounds with metals as well as organic compounds with carbon, hydrogen, nitrogen and other elements. O ₂ (gas) is vital to life whereas O ₃ , ozone, can be harmful due to its ability to oxidize biological tissue, metals, organic compounds and other materials. See Ozone.
O & M, MC	Operations and Maintenance, Marine Corps	Operations and Maintenance, Marine Corps (O&M, MC) is an Department of the Navy economic budget line item to identify major funding requirements identified under categories; Base Operational funding and Real Property Maintenance funding.
O & M, N	Operations and Maintenance, Navy	Operations and Maintenance, Navy (O&M, N) is an Department of the Navy economic budget line item to identify major funding requirements identified under categories; Base Operational Funding and Real Property Maintenance funding.
O&M	Operation and Maintenance	1) Activities conducted after a Superfund site action is constructed to ensure that the action is effective. 2) Actions taken after construction to assure that facilities constructed to treat wastewater will be properly operated and maintained to achieve normative efficiency levels and prescribed effluent limitations in an optimum manner. 3) On-going asbestos management plan in a school or other public building, including regular inspections, various methods of maintaining asbestos in place, and removal when necessary.
O ₂	Oxygen Gas	Can exist as a gas or dissolved in solution. Oxygen forms various inorganic compounds with metals as well as organic compounds with carbon, hydrogen, nitrogen and other elements. O ₂ (gas) is vital to life whereas O ₃ , ozone, can be harmful due to its ability to oxidize biological tissue, metals, organic compounds and other materials. See Ozone.
O ₃	Ozone	Found in two layers of the atmosphere, the stratosphere and the troposphere. In the stratosphere (the atmospheric layer 7 to 10 miles or more above the earth's surface) ozone is a natural form of oxygen that provides a protective layer shielding the earth from ultraviolet radiation. In the troposphere (the layer extending up 7 to 10 miles from the earth's surface), ozone is a chemical oxidant and major component of photochemical smog. It can seriously impair the respiratory system and is one of the most widespread of all the criteria pollutants for which the Clean Air Act required EPA to set standards. Ozone in the troposphere is produced through complex chemical reactions of nitrogen oxides, which are among the primary pollutants emitted by combustion sources; hydrocarbons, released into the atmosphere through the combustion, handling and processing of petroleum products; and sunlight.
OASN(I&E)	Office of the Assistant	Office of the Assistance Secretary of the Navy,

Acronym	Glossary	Definition
	Secretary of the Navy (Installations and Environment)	Installations and Environment, OASN (I&E) serves the Navy by the management of; real property and installations, safety and occupational health issues, environmental protection, planning and restoration and conservation of natural resources.
OD	Outside Diameter	Outside Diameter (OD) is the length of a straight line through the center of the object to its outside edges.
ODU	Old Dominion University	Old Dominion University(ODU) is located in Norfolk VA with a College of Engineering containing six Engineering and Technology Departments with curriculums serving Undergraduate, Masters and Doctorate Degrees.
ODUSD(ES)	Office of the Deputy Under Secretary of Defense, Environment and Security	The Office of the Deputy Under Secretary of Defense, Environment and Security (ODUSD (ES)) is responsible for oversight and policy guidance for all DOD Installation and Environmental Programs.
OERR	Office of Emergency and Remedial Response	The Office of Emergency and Remedial Response (OERR) is an EPA organization made up of two central programs; Superfund and Oil Spill Program.
OESO	Ordnance Environmental Support Office	The Ordnance Environmental Support Office (OESO), a NAVSEA Command, is the Navy's environmental focal point for the storage, use, destruction, disposal requirements and options of all Navy Ordnance.
OGC	Office of the General Counsel	Office of General Council (OGC) provides advice to the Secretary and Deputy Secretary of Defense regarding all legal matters and services performed with, or involving DOD.
OHW	Other Hazardous Waste	Other Hazardous Waste characterizes terms include; Basic/Caustic, Explosive, flashpoints less than 140 degree F, Oxidizer, Peroxide-Former and poisons.
OMB	Office of Management and Budget	The Office of Management and Budget (OMB) is the executive agency that advises the President on the federal budget
OMM&O	Operations, Maintenance, Monitoring, and Optimization	Includes all the elements of O&M plus monitoring, including sampling and analysis and optimization, and the implementation of an ongoing evaluation to ensure that the remedial action is performed in the most effective and cost-effective manner.
ONR	Office of Naval Research	The Office of Naval Research coordinates, executes, and promotes the science and technology programs of the U.S. navy and Marine Corps through schools, universities, government laboratories, and nonprofit and for profit organizations.
OPA	Oil Pollution Act	The Oil Pollution Act (OPA) (1990) addresses oil pollution and establishes liability for discharge and substantial threat of a discharge of oil to U.S. navigable waters and shorelines.
OPM	Office of Personnel Management	The Office of Personnel Management (OPM) is a Federal Human Resource Agency who job is to build a Federal workforce for the Nation.
ORA	Oil Reclamation Area	Oil Reclamation Area (ORA) is a designated area to treat (recycle) waste oil products found in the waste stream to a beneficial use which may be for purposes other than the original use.
ORC	Oxygen Release Compound	Oxygen-Release Compound (ORC) is a process of

Acronym	Glossary	Definition
		adding oxygen to the ground's subsurface to accelerate aerobic biodegradation and enhance the rate of natural attenuation of contaminants.
ORD	Office of Research and Development	The Office of Research and Development (ORD) is an EPA organization which conducts research on ways to prevent pollution, protect human health, and reduce risk.
ORP	Oxidation-Reduction Potential	The electric potential required to transfer electrons from one compound or element (the oxidant) to another compound or element (the reductant); used as a qualitative measure of the state of oxidation in water treatment systems.
OSC	On-Scene Coordinator	The predesignated EPA, Coast Guard, or Department of Defense official who coordinates and directs Superfund removal actions or Clean Water Act oil or hazardous spill response actions.
OSHA	Occupational Safety and Health Act and/or Administration	The Occupational Safety and Health Act (OSHA) (1970) is to assure safe and healthful working conditions for working people by authorizing enforcement of standards under the Act.
OSWER	Office of Solid Waste and Emergency Response	The Office of Solid Waste and Emergency Response (OSWER) primary responsibility for implementing the Resource Conservation and Recovery Act (RCRA) and the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA -- "Superfund").
OTI	Office of Technology Innovation	The EPA's Office of Technology Innovation website offers information about characterization and treatment technologies for the hazardous waste remediation community.
OU	Operable Unit	A discrete action that comprises an incremental step toward comprehensively addressing site problems; an action that manages, eliminates, or mitigates a release, threat of a release, or pathway of exposure. A typical operable unit would be removal of drums and tanks from the surface of a site. Can also include action at a collection of sites to be treated together, often because of similar cleanup requirements.
OVA	Organic Vapor Analyzer	Organic Vapor Analyzer is a field survey instrument typically equipped with a flame ionization detector for field measurement of total volatile compounds in air.
OWS	Oil/Water Separator	Engineered units that skim oil from water.

ERB Glossary – O

Acronym	Glossary	Definition
	obligate aerobe	Microorganisms that can use only oxygen as an electron acceptor. Thus, the presence of molecular oxygen is a requirement for these microbes.
	obligate anaerobe	Microorganisms that grow only in the absence of oxygen; the presence of molecular oxygen either inhibits growth or kills the organism. For example, methanogens are very sensitive to oxygen and can live

Acronym	Glossary	Definition
		only under strictly anaerobic conditions. Sulfate reducers, on the other hand, can tolerate exposure to oxygen, but cannot grow in its presence.
	occupational exposure	Reasonably anticipated skin, eye, mucous membrane, or parental contact with blood or other potentially infectious materials that results from the performance of an employee's duties.
	off-base contamination	Contaminants found to be migrating off the installation or coming onto the installation from off-base sources.
	off-gas	Gaseous effluent, possibly containing contaminant vapors, that leaves a process, typically from a point source during process operations.
	off-site facility	A hazardous waste treatment, storage or disposal area that is located away from the generating site.
	offstream uses	Water withdrawn from surface or groundwater sources for use at another place.
	oil fingerprinting	A method that identifies sources of oil and allows spills to be traced to their source.
	oil spill	An accidental or intentional discharge of oil which reaches bodies of water. Can be controlled by chemical dispersion, combustion, mechanical containment, and/or adsorption. Spills from tanks and pipelines can also occur away from water bodies, contaminating the soil, getting into sewer systems and threatening underground water sources.
	oncogenic	A substance that causes tumors, whether benign or malignant.
	one-hit model	Mathematical model based on the biological theory that a single "hit" of some minimum critical amount of a carcinogen at a cellular target such as DNA can initiate an irreversible series of events, eventually leading to a tumor.
	on-site	According to the NCP, the aerial extent of contamination and all suitable areas in very close proximity to the contamination necessary for implementation of the response action.
	on-site facility	A hazardous waste treatment, storage or disposal area that is located on the generating site.
	open burning	Uncontrolled fires in an open dump.
	open dump	An uncovered site used for disposal of waste without environmental controls. See Dump.
	opportunistic species	1) Organisms able to exploit temporary habitats or conditions. 2) A species that has a life history characterized by short life span, short development time to maturity, high death rate, and many reproductive cycles per year.
	optimal	Most favorable or desirable subject to an imposed set of constraints.
	optimization	Optimization is the systematic evaluation and enhancement of remediation strategy, remediation system, and monitoring program to ensure remediation goals are achieved cost effectively.

Acronym	Glossary	Definition
	organic	1) Referring to or derived from living organisms. 2) Pertaining or relating to a compound containing carbon, especially as an essential component; organic compounds usually have hydrogen bonded to the carbon atom.
	organic chemicals/compounds	Animal or plant-produced substances containing mainly carbon, hydrogen, nitrogen, and oxygen.
	organic matter	Carbonaceous waste contained in plant or animal matter and originating from domestic or industrial sources.
	organism	Any form of animal or plant life.
	osmosis	The passage of a liquid from a weak solution to a more concentrated solution across a semipermeable membrane that allows passage of the solvent (water) but not the dissolved solids.
	outfall	The place where effluent is discharged into receiving waters.
	overburden	Rock and soil cleared away before construction or mining.
	overdraft	The pumping of water from a groundwater basin or aquifer in excess of the supply flowing into the basin; results in a depletion or "mining" of the groundwater in the basin. See Mining of an Aquifer.
	oxidant/oxidizer	A substance containing oxygen that reacts chemically in air to produce a new substance; the primary ingredient of photochemical smog.
	oxidation	1) Loss of electrons from a compound, such as an organic contaminant. The oxidation can supply energy that microorganisms use for growth. Often (but not always), oxidation results in the addition of an oxygen atom and/or the loss of a hydrogen atom. 2) The addition of oxygen that breaks down organic waste or chemicals such as cyanides, phenols, and organic sulfur compounds in sewage by bacterial and chemical means.
	oxygen use rate	Rate of oxygen consumption due to biological and chemical action (used to determine respiration rate when the chemical oxygen demand is negligible).
	oxygenate	To treat, combine, or infuse with oxygen. Oxygenates are added to fuel to enhance combustion.
	oxygenated solvent	An organic solvent containing oxygen as part of the molecular structure. Alcohols and ketones are oxygenated compounds often used as paint solvents.
	ozonation	Application of ozone to water for disinfection or for taste and odor control.
	ozonator	A mechanical device that creates ozone.
	ozone depletion	Destruction of the stratospheric ozone layer which shields the earth from ultraviolet radiation harmful to life. This destruction of ozone is caused by the breakdown of certain chlorine and/or bromine containing compounds (chlorofluorocarbons or halons) when they reach the stratosphere and then catalytically destroy ozone molecules.

Acronym	Glossary	Definition
	ozone hole	A thinning break in the stratospheric ozone layer. The designation of "ozone hole" is made when the detected amount of depletion exceeds fifty percent. Seasonal ozone holes have been observed over both the Antarctic region and the Arctic region and part of Canada and the extreme northeastern United States.
	ozone layer	The protective layer in the stratosphere, beginning about 7 to 10 miles above the ground, that absorbs some of the sun's ultraviolet rays, thereby reducing the amount of potentially harmful radiation reaching the earth's surface.

ERB Acronym and Glossary – P

Acronym	Glossary	Definition
P	data qualifiers - method (analytical) qualifier - P	ICP.
P	data qualifiers - organic analysis - P	Used for a pesticide/aroclor target analyte when there is a greater than 25 percent difference for detected concentrations between the two GC columns.
P	Phosphorous	An essential chemical food element that can contribute to nutrient loading of lakes and other water bodies. Increased phosphorus levels result from discharge of phosphorus-containing materials into surface waters, like fertilizers.
P2	Pollution Prevention	The active process of identifying areas, processes, and activities which create excessive waste byproducts for the purpose of substitution, alteration, or elimination of the process to prevent waste generation.
PA	Performance Assessment	(1) An evaluation of the effectiveness of a remedial action; (2) monitoring for effective control of injected fluids; (3) monitoring for unintended mobilization of contaminants beyond the target treatment zone.
PA	Pollution Abatement	Pollution Abatement is to take action to control activities on the premises in order to stop or prevent pollution and unreasonable noise from occurring as prescribed under regulatory law.
PA	Preliminary Assessment	Identifies potential areas of contamination for further investigation. Consists of a review of available historical information (also known as a records search), aerial photographs, employee interviews, and site visits to gain information concerning installation activities and land use.
PAC	Powdered Activated Carbon	Activated Carbon (Powered form) filtration is recognized as an acceptable method to maintain drinking water contaminants within the limits of EPA Drinking Water Standards.
PACDIV	EFD Pacific Division	Naval Facilities Engineering Command Pacific Division (NAVFAC EFD Pacific) is one of four Engineering Field Divisions of the Naval Facilities Engineering Command. Serve as the Navy's facilities and installations engineering experts throughout the Pacific area; serving the Navy and Marine Corps Team, Unified Commands, DoD and other Federal Agencies.
PAH	Polycyclic Aromatic Hydrocarbon	Hydrocarbons with multiple benzene rings. PAHs are typical components of asphalt, fuel, oils, and greases. Examples of PAHs include naphthalene, the benzo pyrenes, fluoranthene, and chrysene. Synonym - Polynuclear Aromatic Hydrocarbon.
PAO	Public Affairs Officer	Public Affairs Officer (PAO) is appointed by the Organizational Head be the focal point for providing information, news and response to questions concerning organizational issues, operations and services.
PAS	photoacoustic spectroscopy	A spectroscopic technique based on the photoacoustic effect, which is the generation of heat after absorption of radiation (e.g., infrared light) due to radiationless deactivation or chemical reaction.
Pb	Lead	A ductile, heavy metal. It occurs naturally as a trace

Acronym	Glossary	Definition
		<p>constituent in rocks, soils, water, plants, animals and air. It is used widely in industry because of its softness, resistance to corrosion and radiation, and high density. It is used in storage batteries, gasoline additives, pigments, alloys, ammunition, and solder. Its use has been sharply restricted or eliminated by federal laws and regulations. Most lead entering natural waters will precipitate to the sediment bottom as carbonate or hydroxide compounds. However, at low pH and low organic conditions, it is in its most soluble, bioavailable and mobile form. Sorption is the dominant influence in soil. Mobility of lead in soil is low and therefore leaching to groundwater or runoff is not a predominant factor. Lead is not readily taken up by plants and does not appear to significantly bioaccumulate in most fish. Inhalation or ingestion of lead can cause neurological, cardiac and gastrointestinal problems. It is a Group B2, possible human carcinogen.</p>
PBC	performance based contracting	Structuring all aspects of an acquisition around the purpose of the work to be performed. PBC actions (task order) describe ¿what¿ is required (expected outcome) and places the responsibility on the contractor for determining ¿how¿ to deliver or meet the desired outcome on the contractor.
PC	Permeability Constant, cm/hr	Permeability Constant is defined as the steady-state rate of absorption .. skin (amount/cm ³), which is then expressed in cm/hr.
PCB	Polychlorinated Biphenyl	Chemical mixtures comprised of many isomers and compounds which vary from mobile, oily liquids to white, crystalline solids and hard, noncrystalline resins. PCBs have excellent fire retardant capabilities and chemical stability resulting in wide-spread use in electrical equipment. PCBs were used in the dielectric fluid of electrical transformers and capacitors for insulating purposes and in gas pipeline systems as lubricant. PCBs, however, are persistent and especially toxic when involved in fire-related incidents. Further sale for new use was banned by law in 1979. PCBs cause lesions of the skin and liver. Extensive damage to the liver from exposure can lead to death. The higher the chlorine content of the compound, the more toxic the effects. PCBs are Group B2, animal carcinogens. Common types of PCBs are Aroclor 1248, 1254, and 1260.
PCDD	Polychlorinated Dibenzo-p-dioxin	A member of the Dioxin family of chemicals that accumulate in the body fat of animals and humans and are resistant to the body's metabolism.
PCDF	Polychlorinated Dibenzofuran	A member of the Dioxin family of chemicals that accumulate in the body fat of animals and humans and are resistant to the body's metabolism.
PCE	Perchloroethylene	A volatile, clear, colorless liquid with an ethereal odor. Its former uses included dry cleaning, degreasing metals, and as a solvent. Contact can cause dermatitis and irritation, ingestion can cause gastrointestinal irritation. Exposures can result in acute or fatal toxicity. Synonyms - Tetrachloroethene, and

Acronym	Glossary	Definition
		Tetrachloroethylene.
PCE	Perchloroethylene - also tetrachloroethene	Perchloroethylene (PCE - tetrachloroethylene) is used as a solvent (cleaning). NIOSH recommends the solvent be handled as a potential carcinogen and states that workplace air levels should be as low as possible.
PCE	Tetrachloroethene	A volatile, clear, colorless liquid with an ethereal odor. Its former uses included dry cleaning, degreasing metals, and solvents. Contact can cause dermatitis and irritation, ingestion can cause gastrointestinal irritation. Exposures can result in acute or fatal toxicity. Synonym - Perchloroethylene and Tetrachloroethylene.
PCP	Pentachlorophenol	Dark-colored flakes and needle-like crystals which have a pungent odor when hot. It is used in wood preservatives, wood products, starches, dextrans, glue and algae control in herbicide formulation. PCP causes a variety of systemic problems that can lead to death. It is a Group B2, probable human carcinogen.
PCR	Pollution Control Report	Was the Navy's program to track environmental costs in accordance with Office of Management and Budget (OMB) Circular A-106.
PDSB	passive diffusion sampling bag	A low-density polyethylene lay-flat tube that is filled with distilled, deionized water and lowered into a borehole, where contaminants diffuse into the sampler.
PE Sample	Performance Evaluation Sample	Contains unknown quantities of analytes sent to a laboratory for analysis as part of the lab evaluation.
PEF	Particulate Emission Factor	Particulate Emission Factor is a calculation to represent human expose concentration number using an average emission from contaminated soil factoring in environmental conditions such as wind velocity and frequency.
PEG	Polyethylene Glycol	Polyethylene Glycol (an alcohol) can be attached to other molecules by a process called pegylation. When pegylated to medical drugs, it can alter their distribution in the body, metabolism, and excretion.
PEL	Permissible Exposure Limit	The maximum permissible concentration of a toxic chemical or exposure level of a harmful physical agent (normally averaged over an 8-hour period) to which a person may be exposed.
PELAN	Pulsed ELEMENTAL Analysis with Neutrons	PELAN is a man-portable system for the detection of explosives and chemical warfare agents. It is based on the principle that explosives and other contraband contain various chemical elements such as hydrogen, carbon, nitrogen, and oxygen in quantities that differentiate them. Separate gamma-ray spectra from fast neutron, thermal neutron, and activation reactions are accumulated and analyzed to determine elemental content.
Perchlorate	Perchlorate	Perchlorate is an inorganic chemical compound consisting of chlorine bonded to four oxygen atoms (ClO ₄ ⁻). Perchlorate is usually found as the anion component of a salt most often associated with one of the following common cations: ammonium (NH ₄ ⁺), sodium (Na ⁺), or potassium (K ⁺). The resulting salts are ammonium perchlorate (NH ₄ ClO ₄), potassium

Acronym	Glossary	Definition
		perchlorate (KClO ₄) and sodium perchlorate (NaClO ₄).
PFLA	phospholipid fatty acid profile	A microbiological test that determines viable biomass, community structure, and metabolic activity.
PFP	pay for performance	Performance-based contracting method endorsed by EPA and used by States in dry cleaner and petroleum cleanup programs. In PFP cleanups, contractors are paid a set amount of money for reaching specific contamination reduction goals within a set time limit.
PGRS	Plume Groundwater Recovery System	Plume Ground Water Recovery System (PGRS) collects the contaminated portion of the groundwater that moves past a source of pollution.
pH	Indicates the hydrogen ion concentration - acidity or basicity	the logarithm of the reciprocal of hydrogen-ion concentration in gram atoms per liter; provides a measure on a scale from 0 to 14 of the acidity or alkalinity of a solution (where 7 is neutral and 7 is basic).
PHA	Public Health Assessment	A Public Health Assessment is a document that examines hazardous substances, health outcomes, and community concerns at a HW site to determine whether people could be harmed.
PHI	Preliminary Hydrogeological Investigation	Investigation to demonstrate whether the presence of site conditions exist which are sufficient to support the development of an on-site water supply system.
PIC	Products of Incomplete Combustion	Products of Incomplete Combustion (PIC) can emit organic pollutants, metals, and fine particles which represent a global human and environmental health challenges.
PID	Photoionization Detector	Photoionization Detector (PID) use ultraviolet light detectors to measure organic vapor concentrations in air drawn through the sensing equipment.
PITT	partitioning interwell tracer test	A tracer test used for the detection and quantification of NAPL in the subsurface (in the vadose or saturated zones). PITTs are conducted by injection of a suite of tracers (includes both partitioning and nonpartitioning tracers) into one or more injection wells, and the simultaneous extraction of fluids from one or more extraction wells.
PLC	Programmable Logic Controller	A microprocessor based control system used to monitor and control either an entire process or a particular unit operation of a process by monitoring process parameters and using programmed logic to adjust process operations accordingly.
PM	Project Manager	Project Manager (PM) is a person whose responsibility is to plan, organize, and utilize and control resources to accomplish an objective within acceptable time, budget, and quality constraints.
PNA	Polynuclear Aromatic Hydrocarbon	Hydrocarbons with multiple benzene rings. PNAs are typical components of asphalt, fuel, oils, and greases. Examples of PNAs include naphthalene, the benzo pyrenes, fluoranthene, and chrysene. Synonym - Polycyclic Aromatic Hydrocarbons.
PNRS	Preliminary Natural Resource Survey	A simple screening study of a site by a trustee to determine whether trustee resources may have been affected and whether further attention is warranted.
Po	Polonium	A radioactive element that occurs in pitchblende and

Acronym	Glossary	Definition
		other uranium containing ores.
POA&M	Plan of Action and Milestones	A projected action that marks viable progress toward completing the objectives listed in the plan.
POC	Point of Contact	Point of Contact is an individual or organization which is knowledgeable of the action, issue, or question posed.
pOH	Indicates the hydroxide ion (OH-) concentration - basicity or acidity	the anion OH having one oxygen and one hydrogen atom.
POL	Petroleum, Oil and Lubricant	For example jet fuel, gasoline, diesel fuel and POL sludges.
POTW	Publicly Owned Treatment Works	A waste-treatment works owned by a state, unit of local government, or Indian tribe, usually designed to treat domestic wastewaters.
ppb	parts per billion	A drop of water in a 10,000 gallon gasoline tanker truck (this would be the largest gasoline tanker truck) would represent 1 part per billion of water in gasoline by volume.
PPC	Personal Protective Clothing	Site personnel wear personal protective clothing (PPC) to prevent risks to personnel from vapors, gases, and particulates from hazardous waste site activities.
PPE	Personal Protective Equipment	Any material or device worn to protect a worker from exposure to or contact with any harmful substance or force. For IR Program work, it includes protective clothing, respiratory devices, and protective shields and barriers.
PPL	Priority Pollutants List	Under the Clean Water Act, Priority Pollutants (PPL) refer to a list of 126 specific pollutants that includes heavy metals and specific organic chemicals.
ppm(v)	parts per million by volume	The greater part of air is composed of 78% nitrogen and 21% oxygen by volume. Argon, a daughter product of radioactive decay is 9,300 parts per million by volume. Carbon dioxide is approximately 375 parts per million by volume.
ppt	parts per thousand	Not to be confused with parts per trillion. There are just a few modern analytical techniques that can detect some substances to the level of parts per trillion.
PQL	Practical Quantitation Limit	The minimum concentration of an analyte required to be measured and allowed to be reported without qualification as an estimated quantity for samples without substantial interferences (for technical representation see SW-846).
PR	Preliminary Review	Preliminary Review (PR) is an examination of existing information about the facility and is the first step to focus the succeeding phases of the RCRA corrective action process.
PRAP	Proposed Remedial Action Plan	A Proposed Remedial Action Plan (PRAP) is a listing of proposed alternatives to remedy or mitigate risks identified for purposes of cleaning up a contaminated site.
PRB	Permeable Reactive Barrier	An emplacement of reactive materials where a contaminant plume must move through it as it flows, and treated water exists the other side.
PRG	Preliminary Remediation Goal	Concentration levels set for individual chemicals that, for

Acronym	Glossary	Definition
		carcinogens corresponds to a specific cancer risk level of 1 in 1 million and for noncarcinogens corresponds to a Hazard Quotient of 1. PRGs are generally selected when ARARs are not available.
PRP	Potentially Responsible Party	Any individual or company, including owners, operators, transporters or generators, potentially responsible for, or contributing to a spill or other contamination at a Superfund site. Whenever possible, through administrative and legal actions, GPA requires PRPs to clean up hazardous sites they have contaminated.
PRP Site	Potentially Responsible Party Site	Sites where the DOD has no current or past ownership interest and where DOD has a responsibility for cleanup of the site under CERCLA.
PRT	Portable Rapid Test	leak detection system
PSC	Potential Source of Contamination	Potential Sources of Contamination (PSC) for water sources listed by the EPA are; microbial, inorganic, pesticides and herbicides, organic chemicals and radioactive contaminants.
PSE	Preliminary Source Evaluation	Preliminary Source Evaluation (PSE) estimates the quantities of pollutant emissions directly emitted to the environment (air, land or water) and the relationship between these direct emissions and quality of life issues.
psi	pounds per square inch	Unit of measurement used for pressure, force per unit area. One psi would equal 6,895 pascals or newtons per square meter.
PSI	Preliminary Site Inspection	Preliminary Site Inspection (PSI) identify sites that enter the NPL Site Listing Process and provides the data needed for Hazard Ranking System scoring and documentation.
Pu	Plutonium	A radioactive metallic element chemically similar to uranium.
PVC	Polyvinyl Chloride	A tough, environmentally indestructible plastic that releases hydrochloric acid when burned.
PWC	Public Works Center	Public Works Centers (PWC) provide engineering, maintenance, utilities, transportation and environmental services and products to Navy ashore facilities to Naval Regions.
PWD	Public Works Department	Navy Public Works Departments (PWD) provide engineering, maintenance, utilities, transportation and environmental services and products to a specific Navy ashore facility.

ERB Glossary – P

Acronym	Glossary	Definition
	packaging	The assembly of one or more containers and any other components necessary to assure minimum compliance with a program's storage and shipment packaging requirements. Also, the containers, etc., involved.
	packed tower	A pollution control device that forces dirty air through a tower packed with crushed rock or wood chips while

Acronym	Glossary	Definition
		liquid is sprayed over the packing material. The pollutants in the air stream either dissolve or chemically react with the liquid.
	palatable water	Water at a desirable temperature that is free from objectionable tastes, odors, colors, and turbidity.
	parameter	A variable, measurable property whose value is a determinant of the characteristics of a system; e.g., temperature, pressure, and density are parameters of the atmosphere.
	parent PAH	Polycyclic aromatic hydrocarbons with no carbon-containing side-chains.
	partially penetrating well	A well in which the screened length is less than the saturated thickness of the aquifer.
	particle tracking	Method of visualizing streamlines or pathlines in a fluid flow system by displaying the trace of one or more neutrally buoyant particles (microscopic packets of fluid) as they are transported through the flow system.
	particulates	1) Fine liquid or solid particles such as dust, smoke, mist, fumes, or smog found in air or emissions. 2) Very small solids suspended in water. They vary in size, shape, density, and electrical charge, and can be gathered together by coagulation and flocculation.
	partition coefficient	Measure of the sorption phenomenon, whereby a chemical is divided between the soil and water phase; also referred to as adsorption partition coefficient.
	partitioning	Describes the differential concentration of a chemical within two adjacent fluid phases, and is expressed as the ration of the concentration between the two phases (i.e., the concentration ratio of a chemical in contact with NAPL:water or in vapor:water).
	Passive Diffusion Bag Sampler	Passive diffusion bag (PDB) samplers are a simple and inexpensive way to sample groundwater monitoring wells for a variety of volatile organic compounds (VOCs). A typical PDB sampler consists of low-density polyethylene lay-flat tubing filled with distilled, deionized water and heat-sealed at both ends. The bags are suspended by a weighted line at the target horizon in monitoring wells and allowed to equilibrate with the surrounding water. Retrieved after the equilibration period (typically two weeks), the enclosed water is immediately transferred to appropriate sample containers for analysis. Another type of PDB has recently been developed to allow the diffusion of both dissolved inorganic and organic contaminants from groundwater. These new Dialysis Membrane Diffusion Bags are made of cellulose and are used similarly to the polyethylene bags.
	passive remediation system	A system that removes or transforms contamination over a long period of time without requiring additional energy or chemical input and requiring very little operation and maintenance after initial installation.
	pathogenic	Capable of causing disease.
	pathogens	Microorganisms that can cause disease in other organisms or in humans, animals and plants (e.g.,

Acronym	Glossary	Definition
		bacteria, viruses, or parasites) found in sewage, in runoff from farms or rural areas populated with domestic and wild animals, and in water used for swimming. Fish and shellfish contaminated by pathogens, or the contaminated water itself, can cause serious illness.
	pathway	An exposure pathway refers to the way in which a person or ecological receptor may come into contact with a hazardous substance, whether it is chemical, biological, or some other harmful substance.
	Patuxent River	Patuxent River Naval Air Station is located in Southern Maryland
	percent saturation	The amount of a substance that is dissolved in a solution compared to the amount that could be dissolved in it.
	percent solids	The proportion of solid in a soil sample determined by drying an aliquot of the sample.
	perched aquifer	1) Unconfined groundwater separated from an underlying main body of groundwater by a localized unsaturated zone. 2) Zone of unpressurized water held above the water table by a small lens of impermeable rock or sediment.
	percolating water	Water that passes through rocks or soil under the force of gravity.
	percolation	1) Movement under hydrostatic pressure of water, through the interstices of rocks or soils, downward to groundwater, except movement through large openings such as solution channels. 2) Slow seepage of water through a filter.
	performance objectives	Criteria that measure the operational efficiency and suitability of a particular remedial technology. Performance objectives are distinct from remedial action objectives or cleanup goals because they take into account typical engineering performance and technology limitations.
	performance standards	1) Regulatory requirements limiting the concentrations of designated organic compounds, particulate matter, and hydrogen chloride in emissions from incinerators. 2) Operating standards established by EPA for various permitted pollution control systems, asbestos inspections, and various program operations and maintenance requirements.
	permanganate (MnO ₄)	Chemical that oxidizes organic matter, usually used as a salt or in crystalline form such as potassium permanganate.
	permeability	1) The property or capacity of a porous rock, sediment or soil to transmit a fluid per unit cross section without damage to the structure of the media. 2) A measure of the ease of fluid flow under unequal pressure. 3) A measure of how interconnected the pores of a material are.
	permissible dose	The dose of a chemical that may be received by an individual without the expectation of a significantly harmful result.
	permit	An authorization, license, or equivalent control

Acronym	Glossary	Definition
		document issued by EPA or an approved state agency to implement the requirements of an environmental regulation; e.g., a permit to operate a wastewater treatment plant or to operate a facility that may generate harmful emissions.
	persistence	Refers to the length of time a compound stays in the environment, once introduced. A compound may persist for less than a second or indefinitely.
	pesticide	Substances or mixtures intended for preventing, destroying, repelling, or mitigating any pest. Also, any substance or mixture intended for use as a plant regulator, defoliant, or desiccant.
	petrogenic	Term applied to chemicals (commonly PAH) formed from organic matter in ancient sediments/rocks by geologic conditions (temperature and pressure) over geologic time.
	petroleum	Including crude oil or any fraction thereof that is liquid at standard conditions of temperature and pressure (60° F and 14.7 lb/in ² absolute; 15.5C° and 10335.6 kg/m ²). The term includes petroleum-based substances comprised of a complex blend of hydrocarbons derived from crude oil through processes of separation, conversion, upgrading, and finishing, such as motor fuels, jet oils, lubricants, petroleum solvents, and used oils.
	petroleum derivatives	Chemicals formed when petroleum products break down in contact with groundwater.
	petroleum hydrocarbons	gasoline, diesel, motor oils, and similar materials
	PH	The negative value of the power to which 10 is raised in order to obtain the concentration of hydrogen ions (H ₃ O ⁺) in gram-equivalents per liter. pH is a measure of the acidity or basicity of a material: measured 0 through 14 with 7 being neutral, 0 being highly acidic and 14 being highly basic. Natural waters usually have a pH between 6.5 and 8.5.
	phase	A physically distinct and separable form of matter that may be a single compound. For example, water is stable in three phases: solid (ice), liquid, and vapor. Treatment systems often use phase differences to separate contaminants from water.
	Phenolphthalein Alkalinity	The alkalinity in a water sample measured by the amount of standard acid needed to lower the pH to a level of 8.3 as indicated by the change of color of the phenolphthalein from pink to clear.
	Phenols	Organic compounds that are byproducts of petroleum refining, tanning, and textile, dye, and resin manufacturing. Low concentrations cause taste and odor problems in water; higher concentrations can kill aquatic life and humans.
	Phosphates	Certain chemical compounds containing phosphorus.
	photosynthesis	The manufacture by plants of carbohydrates and oxygen from carbon dioxide mediated by chlorophyll in the presence of sunlight.

Acronym	Glossary	Definition
	physical and chemical treatment	Processes generally used in large-scale wastewater treatment facilities. Physical processes may include air-stripping or filtration. Chemical processes include coagulation, chlorination, or ozonation. The term can also refer to treatment of toxic materials in surface and groundwaters, oil spills, and some methods of dealing with hazardous materials on or in the ground.
	phytoplankton	That portion of the plankton community comprised of tiny plants, e.g., algae, diatoms.
	phytoremediation	A remediation technology using plants to degrade contaminants in soil, sediment and groundwater.
	phytotoxic	Harmful to plants.
	picoplankton	Plankton in the size range of 0.2 to 2.0 μ m.
	piezometer	A well with a screen length that is only 1-5% of an aquifer's saturated thickness. Generally used to measure the total potential or head at a point in an aquifer.
	piezometric surface	An imaginary surface that everywhere coincides with the static water level in a confined aquifer.
	pilot tests	Testing a cleanup technology under actual site conditions to identify potential problems prior to full-scale implementation. Innovative research in which a new treatment or remediation technology is extensively evaluated for a small contaminated site or a portion of a site before larger-scale, or full-scale, applications. Usually designed and performed to obtain performance data required for full scale implementation.
	pipe schedule	Standard method for designating the wall thickness of pipe.
	plankton	Tiny plants and animals that live in water.
	plasma-arc reactor	An incinerator that operates at extremely high temperatures and treats highly toxic wastes that do not burn easily.
	plastics	Non-metallic chemoreactive compounds molded into rigid or pliable construction materials, fabrics, etc.
	plugging	Act or process of stopping the flow of water, oil, or gas into or out of a formation through a borehole or well penetrating that formation.
	plume	1) A visible or measurable discharge of a contaminant from a given point of origin. Can be visible or thermal in water as it extends downstream from the pollution source, or visible in air as, for example, a plume of smoke. 2) The area of radiation leaking from a damaged reactor. 3) Area downwind within which a release could be dangerous for those exposed to leaking fumes.
	pneumatic	Operated by or involving the pressure of air or some other gas.
	POH	The negative value of the power to which 10 is raised in order to obtain the concentration of hydroxide ions (OH ⁻) in gram-equivalents per liter. Effectively, pOH is the opposite of pH: 7 is neutral, 0 is highly basic and 14 is highly acidic.

Acronym	Glossary	Definition
	point source	1) A stationary location or fixed facility from which pollutants are discharged. 2) Any single identifiable source of pollution, e.g., a pipe, ditch, ship, ore pit, factory smokestack, etc.
	point(s) of compliance	A location(s) selected between the source area(s) and the potential point(s) of exposure where concentrations of chemicals of concern must be at or below the determined target levels in media (for example, groundwater, soil, or air).
	point(s) of exposure	The point(s) at which an individual or population may come in contact with a chemical(s) of concern originating from a site.
	polar	Describing a substance or molecule in which the positive and negative electrical charges are permanently separated, as opposed to nonpolar molecules in which the charges coincide. Polar molecules ionize in solution and impart electrical conductivity. Water, alcohol, and sulfuric acid are polar. Most hydrocarbon liquids are nonpolar. Carboxyl and hydroxyl groups often exhibit an electric charge. The formation of emulsions and the action of detergents are dependent on this behavior.
	pollen	1) The fertilizing element of flowering plants. 2) Background air pollutant.
	pollutant	1) As defined by section 101(33) of CERCLA, shall include but not be limited to, any element, substance, compound or mixture, including disease-causing agents, which after release into the environment and upon exposure, ingestion, inhalation, or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will or may reasonably be anticipated to cause death, disease, behavioral abnormalities, cancer, genetic mutation, physiological malfunctions (including malfunctions in reproduction) or physical deformations, in such organisms or their offspring. Shall not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance and shall not include natural gas, liquified natural gas or synthetic gas of pipeline quality (or mixtures of natural gas and such synthetic gas). 2) For purposes of the NCP, the term pollutant or contaminant means any pollutant or contaminant that may present an imminent and substantial danger to public health or welfare. 3) Generally, any substance introduced into the environment that adversely affects the usefulness of a resource.
	pollution	Generally, the presence of matter or energy whose nature, location, or quantity produces undesired environmental effects. Under the Clean Water Act, for example, the term is defined as the manmade or man-induced alteration of the physical, biological, chemical, and radiological integrity of water.
	polychaete	A marine worm with paired, flattened, bristle-tipped organs of locomotion.

Acronym	Glossary	Definition
	polymer	Basic molecular ingredients in plastic.
	population	1) A group of interbreeding organisms occupying a particular space. 2) The number of humans or other living creatures in a designated area.
	population at risk	A population subgroup that is more likely to be exposed to a chemical, or is more sensitive to the chemical, than is the general population.
	pore space	The void space and minute passages in a solid material.
	post-closure	The time period following the shutdown of a waste management or manufacturing facility; for monitoring purposes, often considered to be 30 years.
	potable water	Water that is safe for drinking and cooking.
	potential receptor	Any living organism or environmental medium which is in the pathway of contamination from a discharge.
	potentiation	The effect of one chemical to increase the effect of another chemical.
	potentiometric surface	1) An imaginary surface that everywhere coincides with the static water level in a confined aquifer. 2) The level to which water will rise in cased wells or other cased excavations into confined aquifers.
	precipitate	A solid that separates from a solution.
	precipitation	1) The formation of solids out of constituents that were once dissolved. Precipitation is caused by a change in conditions, such as temperature, chemical concentration, or the presence of seed particles to begin the process. 2) Water droplets or ice particles, as rain or snow, condensed from atmospheric water vapor and massive enough to fall to the earth's surface. 3) Removal of hazardous solids from liquid waste to permit safe disposal. 4) Removal of particles from airborne emissions.
	precision	A measure of mutual agreement among individual measurements of the same property, usually under prescribed similar conditions. Precision is usually expressed in terms of standard deviation.
	pretreatment	Processes used to reduce, eliminate, or alter the nature of wastewater pollutants from non-domestic sources before they are discharged into publicly owned treatment works (POTWs).
	prevention	Measures taken to minimize the release of wastes to the environment.
	primary drinking water regulation	Applies to public water systems and specifies a contaminant level, which, in the judgment of the EPA Administrator, will not adversely affect human health.
	primary substrate	Substrate which provides the majority of the growth and energy requirements for cells.
	principal components analysis	A classic exploratory, multivariate data analysis tool that maximizes variability in the data; appropriate for comparing the chemical distributions in environmental samples.
	priority pollutant	A group of approximately 130 chemicals (about 110 are

Acronym	Glossary	Definition
		organics) that appear on a USEPA list because they are toxic and relatively common in industrial discharges.
	probability of detection	The likelihood, expressed as a percentage, that a test method will correctly identify a leaking tank.
	production well	A well of sufficient production so it can be used for public use, either as a water supply, or for industrial purposes.
	proposed plan	A plan for a site cleanup that is available to the public for comment.
	proteins	Complex nitrogenous organic compounds of high molecular weight made of amino acids; essential for growth and repair of animal tissue. Many, but not all, proteins are enzymes.
	protocol	A series of formal steps for conducting a test.
	protozoa	One-celled animals that are larger and more complex than bacteria. May cause disease.
	public	As defined by the NCP includes citizens directly affected by a site, other interested citizens or parties, organized groups, elected officials, and potentially responsible parties.
	public hearing	A formal meeting wherein officials hear the public's views and concerns about an action or proposal. The Navy is required to consider such comments when evaluating its actions. Public hearings must be held upon request during the public comment period.
	public notice	1) Notification by EPA informing the public of Agency actions such as the issuance of a draft permit or scheduling of a hearing. EPA is required to ensure proper public notice, including publication in newspapers and broadcast over radio stations. 2) In the safe drinking water program, water suppliers are required to publish and broadcast notices when pollution problems are discovered.
	public water supply	In Virginia, as defined by the Virginia Department of Health, a water system serving at least 25 individuals or more than 15 residential connections.
	Pug Mill	A hand-driven machine which further crushes and blends powder clay.
	pump and treat	Treatment method in which contaminated water is pumped out of the ground and then treated before being discharged.
	pumping level	Depth to water in a well when the well is being pumped.
	pumping test	Pumping of a well at a constant rate in order to obtain information about the performance of the well or to provide data from which the principal factors of aquifer performance can be calculated. A test for the latter purpose is also called an aquifer test.
	pyrogenic	Term applied to chemicals (commonly PAH) formed during combustion or pyrolysis of organic matter (wood, coal, petroleum, wastes).
	pyrolysis	Decomposition of a chemical by extreme heat.

ERB Acronym and Glossary – Q

Acronym	Glossary	Definition
Q	data qualifiers - organic analysis - Q	No analytical result.
Q	volumetric flow rate	Fluid flow rate expressed in terms of volume per unit time.
QA	Quality Assurance	The total integrated program put in place to assure the reliability of data generated in the laboratory.
QA/QC	Quality Assurance/Quality Control	A system of procedures, checks, audits, and corrective actions to ensure that all research design and performance, environmental monitoring and sampling, and other technical and reporting activities are of the highest achievable quality.
QAO	Quality Assurance Officer	Person responsible for ensuring all procedures and corrective actions taken at the cleanup site are in accordance with EPA requirement guidelines.
QAPP	Quality Assurance Project Plan	A written document associated with all remedial site sampling activities, which presents in specific terms the organization (where applicable), objectives, functional activities, and specific Quality Assurance (QA) and Quality Control (QC) activities designed to achieve the Data Quality Objectives (DQO) of a specific project(s) or continuing operation(s). The QAPP is prepared for each specific project or continuing operation (or group of similar projects or continuing operations). The QAPP will be prepared by the responsible program office, regional office, laboratory, contractor, recipient of an assistance agreement, or other organization. For an enforcement action, potentially responsible parties may prepare a QAPP subject to lead agency approval. There are 16 essential elements which EPA has mandated to be addressed in a project plan.
QC	Quality Control	The routine application of specific, well-defined procedures which ensure the generation of data which fulfill the objectives of the QA program.
QI	Qualified Individual	A term used by the U. S. Coast Guard for the designated individual who is trained in oil and hazardous substance facility response and acts as liaison with the Federal OSC in spill response activities.
QIF	Quality Improvement Forum	A Quality Improvement Forum is used to resolve and review environmental restoration projects (technical and cost effective issues) by Navy Environmental Teams, academia, industry and other agencies to stay current on new technologies.
QL	Quantitation Limit	The Quantitation Limit is generally determined by the analysis of samples with known concentrations of analyte and by establishing the minimum level at which the analyte can be quantified with acceptable accuracy and precision.

ERB Glossary – Q

Acronym	Glossary	Definition
	qualitative	Analysis without regard to quantity or specific numeric values.
	qualitative risk analysis	A nonnumeric evaluation of a site to determine potential exposure pathways and receptors based on known or readily available information.
	quality	The totality of features and characteristics of a product or service that bears on its ability to meet the stated or implied needs and expectations of the user.
	quantitative	Analysis with regard to quantities or specific numeric values.

ERB Acronym and Glossary – R

Acronym	Glossary	Definition
r	Correlation Coefficient	A number which indicates the degree of dependence between two variables (concentration - absorbance). The more dependent they are, the closer the value of r to one. Determined on the basis of the least squares line.
R	data qualifiers - organic analysis - R	Quality control indicates that sample results are rejected and data are not usable (compound may or may not be present). Resampling and reanalysis are necessary for verification.
R & D	Research and Development	Activities which directly contribute to achieving advances in science or technology through the resolution of scientific or technological uncertainty.
RA	Remedial Action	1) Involves the construction, operation, and implementation of the final cleanup remedy until confirmatory sampling and analysis indicate that cleanup levels have been reached. The final remedy can include removing waste from a site for off-site treatment or disposal, containing the waste on-site or treating the waste on-site. Long-term RAs require continued monitoring, operation, and maintenance for a number of years. 2) As defined by CERCLA those actions consistent with the permanent remedy taken instead of or in addition to removal actions in the event of a release or threatened release of a hazardous substance into the environment, to prevent or minimize the release of hazardous substances so that they do not migrate to cause substantial danger to present or future public health or welfare or the environment. The term includes, but is not limited to, such actions at the location of the release as storage, confinement, perimeter protection using dikes, trenches, or ditches, clay cover, neutralization, cleanup of released hazardous substances and associated contaminated materials, recycling or reuse, diversion, destruction, segregation of reactive wastes, dredging or excavations, repair or replacement of leaking containers, collection of leachate and runoff, on-site treatment or incineration, provision of alternative water supplies, and any monitoring reasonably required to assure that such actions protect the public health, welfare, and the environment. The term includes the cost of permanent relocation of residents, businesses, and community facilities where the President determines that, alone or in combination with other measures, such relocation is more cost effective than and environmentally preferable to the transportation, storage, treatment, destruction, or secure disposition off-site of hazardous substances, or may otherwise be necessary to protect the public health or welfare; the term includes off-site transport and off-site storage, treatment, destruction, or secure disposition of hazardous substances and associated contaminated materials. 3) For the NCP, the term also includes the enforcement activities related thereto.

Acronym	Glossary	Definition
RA	Risk Assessment	1) Qualitative and quantitative evaluation of the risk posed to human health and/or the environment by the actual or potential presence and/or use of specific pollutants. 2) The process used to determine the threats posed by hazardous substances. Elements include: identification of the hazardous substances present in the environmental media; assessment of exposure and exposure pathways; assessment of the toxicity of the site's hazardous substances; characterization of human health risks; and characterization of the impacts and/or risks to the environment.
RAB	Restoration Advisory Board	An advisory group for the restoration process with members from the public, the Navy, and the regulatory agencies. The purpose of the RAB is to gain effective input from stakeholders on cleanup activities and increase installation responsiveness to the community's environmental restoration concerns.
RABITT	Reductive Anaerobic In Situ Biological Treatment Technology	A treatment technology that attempts to stimulate the dechlorination of chloroethenes in groundwater by supplying electron-donating substrate to indigenous anaerobic microorganisms.
RAC	Remedial Action Contract	An open-ended, long term Navy contract for clean up of specific contaminants.
RACER	Remedial Action Cost Engineering and Requirements	Engineering-based environmental cost estimating system. Estimates costs for studies, remedial design, remedial action, and related site-work for environmental restoration projects.
RAC-IT	Remedial Action Contract - Innovative Technologies	Remedial Action Contract - Innovative Technologies; The purpose of the contract is to provide a mechanism to transfer innovative technologies and approaches into ongoing remedial activities at Navy and Marine Corps installations.
RACM	Reasonably Available Control Measure	A broadly defined term referring to technological and other measures for pollution control.
RACT	Reasonably Available Control Technology	Control technology that is reasonably available, and both technologically and economically feasible. Usually applied to existing sources in nonattainment areas; in most cases is less stringent than new source performance standards.
RAGS	Risk Assessment Guidance for Superfund	EPA guidance for conducting risk assessments.
RAO	Remedial Action Objective	The Remedial Action Objective (RAO) provides the basis for developing criteria for the implementation of the Remedial Action Plan.
RAO	Remedial Action Operation	Formerly Long Term Operation. Includes operation and maintenance support requirements from start of implementation of a RA; includes monitoring necessary to ensure ongoing RA is successful. RAO should not follow an interim RA for programming purposes
RAP	Remedial Action Plan	The Remedial Action Plan (RAP) is the EPA's Department of Toxic Substances Control's (DTSC's) remedy selection document for hazardous substance release sites.
RAW	Risk Assessment Workgroup	Advisory group to the Installation Restoration Managers

Acronym	Glossary	Definition
		and Remedial Project Managers to promote efficient application of human health and ecological risk assessment processes.
RAWP	Remedial Action Work Plan	A field sampling plan and O&M plan containing key implementation actions for the remedy.
RBC	Risk Based Concentration	Formulated by EPA Region III, RBCs are chemical concentrations corresponding to fixed levels of risk (i.e., a hazard quotient of 1 or lifetime cancer risk of 10 ⁻⁶) in water, air, fish tissue, and soil. RBCs are often used to screen sites not yet on the NPL, respond rapidly to citizen inquiries, and spot-check formal baseline risk assessments. However, RBCs have several limitations. Calculation of RBCs do not include consideration of: 1) transfers from soil to air and groundwater, and 2) cumulative risk from multiple contaminants or media. Therefore, for a single contaminant in a single medium, under standard default exposure assumptions, the RBC corresponds to the target risk or hazard quotient. Chemical concentrations corresponding to fixed levels of risk in water, air, fish tissue, and soil.
RBCA	Risk Based Corrective Action	A streamlined approach in which exposure and risk assessment practices are integrated with traditional components of the corrective action process.
RBSL	Risk Based Screening Level	Risk-based, site-specific corrective action target levels for chemicals of concern.
RC	Response Complete	The IRP actions are complete and the site is not a threat to the public health or the environment. It also can mean that the DoD is satisfied that the IRP activities at the site are complete and the proper authorities have been or are being notified, where necessary, of this decision.
RCRA	Resource Conservation and Recovery Act, 1978	RCRA, as amended by the Hazardous and Solid Waste Amendments of 1984 (HSWA), requires the establishment of a management system for hazardous waste (Subtitle C), non-hazardous solid waste (Subtitle D), and underground storage tanks (Subtitle I). RCRA also provides corrective action authority for cleanup of pre-RCRA hazardous waste management units and non-hazardous solid waste management units.
RD	Remedial Design	Involves the development of the actual design of the selected cleanup remedy including preparation of all technical drawings, plans and specifications needed to implement the cleanup action.
RD&D	Research, Development, and Demonstration	EPA approval procedure for research projects, limited in scale, duration and environmental impact.
RDDT&E	Research, Development, Demonstration, Test, and Evaluation	Used by the Department of Energy for their Research & Development programs.
RDT&E	Research, Development, Test, and Evaluation	The systematic use of scientific principles in adapting technology to a new application by establishing conditions from which data is collected, assembled, and analyzed to determine feasibility and practicality.
RDX	Research Dept (or Royal	An explosive material widely used by the military. Its

Acronym	Glossary	Definition
	Demolition) Explosive	manufacture can easily pollute soil and groundwater.
REACH IT	Remediation and Characterization Innovative Technologies	An EPA system that uses the power of the Internet to search, view, download and print information about innovative remediation and characterization technologies.
REAMS	Risk Exposure and Analysis Modeling System	Site remediation and cleanup guidance for the Virginia Department of Environmental Quality Water Division.
REC	Regional Environmental Coordinator	The Regional Environmental Coordinator (REC) serves as the Senior Navy Officer in a local region to coordinate environmental matters and public affairs. Designated by the Area Environmental Coordinator and maybe designated as NOSC for spill response.
REDOX	reduction/oxidation	Chemical reaction where one material is oxidized and another reduced.
RF	Radio Frequency	Radio Frequency (RF) is a generated electromagnetic field ranging from 9kHz to 300 GHz in bandwidth with applications in many wireless devices (cordless and cell phones, 2-way radios etc).
RF	Receptor Factor	An indication of the potential for human or ecological contact with site contaminants.
RFA	RCRA Facility Assessment	The initial process to determine whether corrective action at a site is warranted or to define what additional data must be gathered to make this determination. Equivalent to a CERCLA Preliminary Assessment (PA). RFAs are performed as part of the RCRA permitting process.
RfC	Reference Concentration	An EPA's Reference Concentrations ia an estimate of a continuous inhalation exposure concentration to people that is likely to be without risk off deleterious effects during a lifetime.
RfD	Reference Dose, Chronic	An estimate (with uncertainty spanning perhaps an order of magnitude or greater) of a daily exposure level for the human population, including sensitive subpopulations, that is likely to be without an appreciable risk of deleterious effects during a lifetime. Chronic RfDs are specifically developed to be protective for long-term exposure to a compound (as a Superfund program guideline, seven years to lifetime). Reference doses are calculated by dividing a quantitative indicator of toxicity (NOAEL or LOAEL) by an uncertainty factor.
RfDdt	Reference Dose, Developmental	An estimate (with uncertainty spanning perhaps an order of magnitude or greater) of an exposure level for the human population, including sensitive subpopulations, that is likely to be without an appreciable risk of developmental effects. Developmental RfDs are specifically developed to be protective for long-term exposure to a compound (as a Superfund program guideline, seven years to lifetime). Reference doses are calculated by dividing a quantitative indicator of toxicity (NOAEL or LOAEL) by an uncertainty factor.
RfDs	Subchronic Reference Dose	Daily exposure at or below the Subchronic Reference Dose is likely to be without appreciable risk of deleterious effects to the human population over the

Acronym	Glossary	Definition
		course of a lifetime.
RFI	RCRA Facility Investigation	The process of determining the extent of hazardous waste contamination. Equivalent to the CERCLA Remedial Investigation (RI).
RFP	Request for Proposal	Used in negotiated acquisitions to communicate Government requirements to prospective contractors and to solicit proposals.
RI	Remedial Investigation	A detailed study that includes media sampling to determine the nature and extent of contamination at a site. The RI emphasizes data collection and site characterization including sampling and monitoring as necessary to gather sufficient information to determine the necessity for remedial action and to support the evaluation of remedial alternatives. The RI includes a health assessment which estimates risks to human health and the environment as a result of the contamination. The RI also provides site-specific information for the FS.
RI/FS	Remedial Investigation/Feasibility Study	Remedial Investigation/Feasibility Study. This is a process that characterizes the extent of contamination at a site and explores options for remediation. The process is mandated by CERCLA, but its framework is used for many other sites, besides those on the NPL.
RIP	Remedy In Place	Indicates that a final remedial action has been constructed, implemented and is operating according to the Remedial Design (RD). An example of this would be a pump and treat system that is installed, operating as designed, and will continue to operate until cleanup levels have been attained. Since operation is on-going, the site cannot be considered as Response Complete (RC).
RITS	Remediation Innovative Technology Seminar	The Remediation Innovative Technology Seminar (RITS) provides training on new and innovative technologies, methodologies, and guidance under the Navy's Environmental Restoration program.
RL	Reporting Limit	A project, laboratory, or sample-specific numerical threshold value used for reporting analytical data. Chemicals detected below the RL and "J" qualified.
RMCL	Recommended Maximum Contaminant Level	The maximum level of a contaminant in drinking water at which no known or anticipated adverse affect on human health would occur, and that includes an adequate margin of safety. Recommended levels are nonenforceable health goals. See Maximum Contaminant Level.
RME	Reasonable Maximum Exposure	The maximum exposure reasonably expected to occur at a site. The RME is estimated for both the current and future land-use conditions. For Superfund exposure assessments, intake values for a given pathway should be selected so that the combination of all intake variables results in an estimate of the reasonable maximum exposure for that pathway.
RMIS	Remediation Management Information System	An on-line library of information on over 850 remediation technologies to select the best technology for site cleanup.

Acronym	Glossary	Definition
RMIS	Restoration Management Information System	A DoD database used to track information on the status and progress of activities at sites in the DERP. It is used to support the Annual Report to Congress.
Rn	Radon	A colorless, naturally occurring, radioactive, inert gas formed by radioactive decay of radium atoms in soil or rocks.
RO	Reverse Osmosis	A treatment process used in water systems by adding pressure to force water through a semi-permeable membrane, but containing contaminants. Reverse osmosis removes most drinking water contaminants. Also used in wastewater treatment. Large scale reverse osmosis plants are being developed.
ROD	Record of Decision	1) A public document that explains the remedy selection process and which cleanup alternative(s) will be used at National Priorities List sites where, under CERCLA, Trust Funds pay for the cleanup. 2) The official term used by CERCLA and the NCP for the documentation of a final remedial response action decision at an NPL site.
ROICC	Resident Officer in Charge of Construction	Manages implementation of IR contracts involving construction including removal and remedial actions. Ensures that the contractor meets all specifications and activities are completed in a manner that protects human health, welfare, and the environment.
RPD	Relative Percent Difference	To compare two values, the relative percent difference is based on the mean of the two values, and is reported as an absolute value, i.e., always expressed as a positive number or zero.
RPM	Remedial Project Manager	Primary point of contact involved in the cleanup of IR sites. RPMs are responsible for taking all response actions to address the release of contaminants. The RPM is the prime contact for remedial actions being taken at sites on the NPL, and for sites not on the NPL but under the jurisdiction of a Federal agency. The RPM coordinates, directs, and reviews the work of other agencies, responsible parties, and contractors to ensure compliance with appropriate regulatory requirements.
RQ	Reportable Quantity	1) Quantity of a hazardous substance that triggers reports under CERCLA. If a substance exceeds its RQ, the release must be reported to the National Response Center, the SERC, and community emergency coordinators for areas likely to be affected. 2) The specified amount of a hazardous substance that when released in excess of that amount to the environment, must be reported under EPCRA, Section 304.
RREL	Risk Reduction Engineering Laboratory	The Environmental Protection Agency's laboratory in Cincinnati, Ohio.
RRSEM	Relative Risk Site Evaluation Model	The grouping of sites or AOCs into High, Medium, or Low categories based on an evaluation of site information using the factors of contamination hazard, migration pathway, and receptors.
RSC	Rapid Sediment Characterization	Rapid Sediment Characterization are field screening tools that provide measurements of chemical, biological or physical parameters on a real-time basis.
RSD	Relative Standard Deviation	The Relative Standard Deviation (RSD) is expressed in

Acronym	Glossary	Definition
		percent and is obtained by multiplying the standard deviation (S) by 100 and dividing this product by the average ($RSD = 100 \times S / \bar{x}$ (sum/number of items)).
RSE	Remedial Systems Evaluation	A process by which an independent expert team works collaboratively with the RPM and site contractor to evaluate the performance of all major components of the remediation system.
RTET	Remediation Technology Evaluation Tool	The RTET is a list preferred technologies organized by media and containment, and contains description of each technology.
RTM	Remedial Technical Managers	Remedial Technical Managers (RTM) have ultimate responsibility for the site, the ecological risk assessment team and other group agencies related to site cleanup.

ERB Glossary – R

Acronym	Glossary	Definition
	radical	A molecular fragment having one or more unpaired electrons that are capable of initiating many kinds of chemical chain reactions, including oxidation. Free radicals are short-lived, highly reactive entities formed by the splitting of a molecular bond.
	radionuclides	An element characterized according to its atomic mass and atomic number that is radioactive.
	radius of influence	The maximum distance from the extraction or injection well where vacuum or pressure (soil gas or groundwater movement) occurs.
	radius of oxygen influence	The radius to which oxygen has to be supplied to sustain maximal biodegradation; a function of both air flowrates and oxygen utilization rates, and therefore depends on site geology, well design, and microbial activity.
	radius of vulnerability zone	The maximum distance from the point of release of a hazardous substance in which the airborne concentration could reach the level of concern under specified weather conditions.
	Raoult's Law	A physical-chemical law which states that the vapor pressure of a solution is equal to the mole fraction of the solvent multiplied by the vapor pressure of the pure solvent.
	raw sewage	Untreated wastewater and its contents.
	raw water	Intake water prior to any treatment or use.
	RCRA Part A Permit	Identifies treatment, storage and disposal units within a to-be-permitted facility.
	RCRA Part B Permit	Describes the wastes managed, the quantities, and the facilities. Allows the management of a treatment, storage, and disposal facility.
	reactivity	The ability of a material to undergo a chemical reaction with the release of energy. It could be initiated by mixing or reacting with other materials, application of heat, physical shock, etc.

Acronym	Glossary	Definition
	reagent blank	Usually an organic aqueous solution that is as free of analyte as possible and contains all the reagents in the same volume as used in the processing of samples. The reagent blank must be carried through the complete sample preparation procedure and contains the same reagent concentrations in the final solution as in the sample solution used for analysis. The reagent blank is used to correct for possible contamination resulting from the preparation or processing of the sample. One reagent blank should be prepared for every analytical batch or for every 20 samples, whichever is more frequent.
	reasonable potential exposure scenario	A situation with a credible chance of occurrence where a receptor may become directly or indirectly exposed to the chemical(s) of concern without considering extreme or essentially impossible circumstances.
	reasonably anticipated future use	Future use of a site or facility that can be predicted with a high degree of certainty given current use, local government planning, and zoning.
	rebound	An increase in contaminant levels that may occur once the operation of a remedial system has been stopped. To recover. In the context of remediation, rebound tests are used to see whether contamination reoccurs after removal or treatment.
	recarbonization	Process in which carbon dioxide is bubbled into water being treated to lower the pH.
	receiving waters	A river, lake, ocean, stream or other watercourse into which wastewater or treated effluent is discharged.
	receptor	Any living organism or environmental medium which is exposed to contamination from a discharge.
	recharge	The addition of water to an aquifer by natural infiltration or artificial means. Injection of water into an aquifer through wells is one form of artificial recharge.
	recharge area	A land area in which water reaches the zone of saturation from surface infiltration, e.g., where rainwater soaks through the earth to reach an aquifer.
	recharge rate	The quantity of water per unit of time that replenishes or refills an aquifer.
	reclamation	(In recycling) Restoration of materials found in the waste stream to a beneficial use which may be for purposes other than the original use.
	records	All books, papers, maps, aerial photographs, architectural or engineering drawings, photographs, machine readable materials, or other documentary materials regardless of physical form or characteristics made or received by an agency of the United States Government under Federal law or in conjunction with the transaction of public business and preserved or appropriate for preservation by that agency or its legitimate successor as evidence of the organization, functions, policies, decisions, procedures, operations, or other activities of the Government.
	recoverable	The capability and likelihood of being recovered from

Acronym	Glossary	Definition
		solid waste for commercial or industrial use.
	recovered material	Waste materials and byproducts which have been recovered or diverted from solid waste.
	recovered resources	Material or energy recovered from solid waste.
	recovery	The residual drawdown after pumping has stopped.
	recycle/reuse	Minimizing waste generation by recovering and reprocessing usable products that might otherwise become waste (i.e. recycling of aluminum cans, paper, and bottles, etc.).
	red tide	A proliferation of a marine plankton toxic and often fatal to fish, perhaps stimulated by the addition of nutrients. A tide can be red, green, or brown, depending on the coloration of the plankton.
	redox state	Describes the oxidation-reduction potential of a sample or area, whether the environment is reducing or oxidizing.
	reduction	The addition of hydrogen, removal of oxygen, or addition of electrons to an element or compound. Occurs when another compound is oxidized.
	reductive dechlorination	Removal of chlorine from a substance by chemically replacing it with hydrogen or hydroxide ions in order to detoxify the substance. The substance is reduced in the process.
	relative absorption factor	The ratio of the absorption from the exposure medium of concern to the absorption from the medium used in a toxicity study.
	release	1) As defined by section 101(22) of CERCLA, any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment including the abandonment or discarding of barrels, containers, and other closed receptacles containing any hazardous substance, pollutant or contaminant to include oil, but excludes: Any release which results in exposure to persons solely within a workplace, with respect to a claim which such persons may assert against the employer of such persons; emissions from the engine exhaust of a motor vehicle, rolling stock, aircraft, vessel, or pipeline pumping station engine; release of source, byproduct, or special nuclear material from a nuclear incident, as those terms are defined in the Atomic Energy Act of 1954, if such release is subject to requirements with respect to financial protection established by the Nuclear Regulatory Commission under section 170 of such Act, or, for the purposes of section 104 of CERCLA or any other response action, any release of source, byproduct, or special nuclear material from any processing site designated under section 102(a)(1) or 302(a) of the Uranium Mill Tailings Radiation Control Act of 1978; and the normal application of fertilizer. 2) For purposes of the NCP, release also means threat of release.
	remedial action process	Provides a careful progression through the four phases of identification, investigation, cleanup and closure.

Acronym	Glossary	Definition
	remedial response	Long-term action that stops or substantially reduces a release or threat of a release of hazardous substances that is serious but not an immediate threat to public health.
	remediation	Cleanup or other methods used to remove or contain a toxic spill or hazardous materials from a Superfund site.
	remote sensing	The collection and interpretation of information about an object without physical contact with the object; e.g., satellite imaging and aerial photography.
	removal action	1) An action to abate, minimize, stabilize, mitigate, or eliminate the release or threat of release of a hazardous substance; such actions may be taken during any phase of the remedial action process. 2) As defined by CERCLA, the cleanup or removal of released hazardous substances from the environment, such actions as may be necessary taken in the event of the threat of release of hazardous substances into the environment, such actions as may be necessary to monitor, assess, and evaluate the release or threat of release of hazardous substances, the disposal of removed material, or the taking of such other actions as may be necessary to prevent, minimize or mitigate damage to the public health, welfare or the environment, which may otherwise result from a release or threat of a release. The term includes, in addition, but not limited to, security fencing or other measures to limit access, provision of alternative water supplies, temporary evacuation and housing of threatened individuals not otherwise provided for, action taken under section 104(b) of CERCLA, post-removal site control where appropriate, and any emergency assistance which may be provided under the Disaster Relief and Emergency Assistance Act. 3) For the NCP, the term also includes the enforcement activities related thereto. 4) Short-term immediate actions taken to address releases of hazardous substances that require expedited response.
	replicate	Repeated operation occurring within an analytical procedure. Two or more analyses for the same constituent in an extract of a single sample constitutes replicate extract analyses.
	replicate sample	A sample prepared by dividing a sample into two or more aliquots. Duplicate samples are considered to be two replicates. In cases where aliquoting is impossible, as in the case of volatiles, duplicate samples must be taken for the replicate analysis.
	representative sample	A portion of material or water that is as nearly identical in content and consistency as possible to that in the larger body of material or water being sampled.
	representativeness	The degree to which data accurately and precisely represents a characteristic of a population, parameter variations at a sampling point, or an environmental condition. It is a qualitative parameter that is most concerned with the proper design of the sampling program.

Acronym	Glossary	Definition
	residence time	The period of time that a given volume of groundwater remains in a permeable reactive barrier.
	residual	Amount of a pollutant remaining in the environment after a natural or technological process has taken place, e.g., the sludge remaining after initial wastewater treatment, or particulates remaining in air after it passes through a scrubbing or other process.
	residual risk	The extent of health risk from air pollutants remaining after application of the Maximum Achievable Control Technology (MACT).
	residual saturation	In physical terms, residual saturation is defined as a saturation value in which a given phase is immobile. Also defined as the saturation of a phase at an arbitrarily high capillary pressure.
	residue	The dry solids remaining after the evaporation of a sample of water, sludge, or other material.
	resistance	For plants and animals, the ability to withstand poor environmental conditions or attacks by chemicals or disease. May be inborn or acquired.
	resolution	The separation between peaks on a chromatogram, calculated by dividing the depth of the valley between the peaks by the peak height of the smaller peak being resolved, multiplied by 100. Also termed separation or percent resolution.
	resource	A person, thing, or action needed for living or to improve the quality of life.
	resource conservation	Reductions of the amounts of solid waste that are generated, reduction of overall resource consumption, and utilization of recovered resources.
	resource recovery	1) The recovery of material or energy from solid waste. 2) The process of obtaining matter or energy from materials formerly discarded.
	resource recovery facility	Any facility at which solid waste is processed for the purpose of extracting, converting to energy or otherwise separating and preparing solid waste for reuse.
	resource recovery system	A solid waste management system which provides for collection, separation, recycling, and recovery of solid wastes, including disposal of nonrecoverable waste residues.
	respiration	Oxidation of compounds to provide energy for cells.
	respiration rate	Rate of reduction of oxygen concentration due to biological action.
	respiration test	Test used to provide rapid field measurement of biodegradation rates to determine the potential applicability of aerobic bioremediation at a contaminated site and to provide information for a full-scale treatment system design.
	response	Any investigation, evaluation, decision-making, or implementation step.
	response action	1) Generic term for actions taken in response to actual or potential health-threatening environmental events such as spills, sudden releases, and asbestos abatement/management problems. 2) A CERCLA-

Acronym	Glossary	Definition
		authorized action involving either a short-term removal action or a long-term removal response. This may include but is not limited to: removing hazardous materials from a site to an EPA-approved hazardous waste facility for treatment; containment or treatment of the waste on-site; identifying and removing the sources of ground-water contamination and halting further migration of contaminants.
	responsiveness summary	A summary of oral and/or written public comments received during a comment period on key documents, and the response to those comments.
	restoration	Measures taken to return a site to pre-violation conditions.
	retardation	Preferential retention of contaminants in the subsurface by one or more physical, chemical, or biological factors.
	retention time	Elapsed time between injection of a sample extract into a gas chromatograph and the elution of the target compound on the chromatogram.
	reversible effect	An effect which is not permanent; especially adverse effects which diminish when exposure to a toxic chemical is ceased.
	riparian habitat	Areas adjacent to rivers and streams with a high density, diversity, and productivity of plant and animal species relative to nearby uplands.
	rising head test	A type of Slug Test where a solid or known volume of water is quickly removed from an aquifer so that the rising head (water level in the well) can be monitored to determine the hydraulic conductivity. Values are often greater than those obtained from a falling head test for the same well.
	risk	A measure of the probability that damage to life, health, property, and/or the environment will occur as a result of a given hazard.
	risk characterization	The last step in the risk assessment process which characterizes the potential for adverse health effects and evaluates the uncertainty involved.
	risk communication	The exchange of information about health or environmental risks among risk assessors and managers, the general public, news media, interest groups, etc.
	risk estimate	A description of the probability that organisms exposed to a specific dose of a chemical or other pollutant will develop an adverse response (e.g., cancer)
	risk factor	Characteristic (e.g., race, sex, age, obesity) or variable (e.g., smoking, occupational exposure level) associated with increased probability of a toxic effect.
	risk management	The process of evaluating and selecting alternative regulatory and non-regulatory responses to risk. The selection process necessarily requires the consideration of site-specific scientific, legal, economic, social, political, and behavioral factors.
	risk management concept	Ensures that higher relative risk sites receive higher priority in the cleanup process; focuses on risk while also evaluating all relevant factors at a particular

Acronym	Glossary	Definition
		cleanup site.
	risk management priorities	Relative risk, legal agreements, military readiness, stakeholder's concerns, innovative technologies, and cost effective contracting procedures help determine the priority of sites for cleanup within funding limits.
	risk reduction	The lowering or elimination of the level of risk posed to human health or the environment through interim remedial action, remedial action, or institutional or engineering controls.
	risk specific dose	The dose associated with a specified risk level.
	risk value	a calculated numeral that describes the probability or potential for developing cancer from exposure to carcinogenic contaminants.
	risk-based analysis	An evaluation concerned with identifying the human health and environmental risks by identifying the fate and transport of contaminants and identifying exposures to assumed receptors (animals or humans).
	risk-based method	A process that combines environmental data obtained for a hazardous waste site, risk assessment calculations, and a series of risk management decisions.
	river basin	The land area drained by a river and its tributaries.
	rolling milestones provision	Calls for annual updates to agreement milestones based on yearly appropriations; milestones are displayed in a Site Management Plan.
	rotosonic drilling	a dual cased drilling system that employs the use of high frequency vibration to obtain continuous core samples.
	route of exposure	The avenue by which a chemical or physical agent comes into contact with an organism (e.g., inhalation, ingestion, dermal contact, injection.)
	Rule of Five	A novel weight of evidence approach to derive a site specific clean up goal. Designed to provide a more objective (less subjective) approach to the use of lines of evidence in the development of PRGs in ecological risk assessment.
	runoff	That part of precipitation that flows to surface streams. Direct or over-land runoff is that portion of rainfall which is not absorbed by soil, evaporated, or transpired by plants, but finds its way into streams as surface flow. That portion which is absorbed by soil and later discharged to surface streams is groundwater runoff.

ERB Acronym and Glossary – S

Acronym	Glossary	Definition
S	data qualifiers - metals analysis - S	The reported value was determined by the Method of Standard Additions.
S	data qualifiers - organic analysis - S	Estimated due to surrogate outliers.
S	Storage Coefficient	A measure of the volume of water contained in an aquifer, related to porosity and aquifer thickness. Expressed as an absolute value normally from 0.00001 to 0.002 for confined aquifers and from 0.02 to 0.35 for water table aquifers.
S	Sulfur	A pale-yellow, non-metallic chemical element used in vulcanizing rubber and in making matches, paper, gunpowder, insecticides, sulfuric acid, etc.
s	value of drawdown	The effect of removing water from a reservoir or aquifer.
S/S	Stabilization/Solidification	A process that chemically absorbs and physically immobilizes contaminant materials in soil.
SA	Surface Area of exposed skin, cm ² /event	National Institute for Occupational Safety and Health variable for modeling dermal exposure to contaminants in soil.
SAB	Science Advisory Board	A group of external scientists who advise EPA on science and policy.
SACM	Superfund Accelerated Cleanup Model	EPA model which streamlines the traditional Superfund response process through administrative changes.
SAP	Sampling Analysis Plan	Provides a process for obtaining sampling data of sufficient quantity and quality to satisfy data needs.
SAR	Small Arms Range	Designated land or water area set aside, managed, and used to conduct research on develop, test, and evaluate weapons systems discharging bullets of 50 caliber or less.
SARA	Superfund Amendments and Reauthorization Act of 1986	In addition to certain free-standing provisions of law, it includes amendments to CERCLA, the Solid Waste Disposal Act, and the Internal Revenue Code. Among the free-standing provisions of law is Title III of SARA, also known as the "Emergency Planning and Community Right-to-Know Act of 1986," and Title IV of SARA, also known as the "Radon Gas Indoor Air Quality Research Act of 1986." Title V of SARA amending the Internal Revenue Code is also known as the "Superfund Revenue Act of 1986."
SAVE tm	Spray Aeration Vacuum Extraction	Technology developed by Remediation Service International, used to treat groundwater contaminated with dissolved volatile organic compounds.
SB	Soil Boring	An auger is used to drill into ground and obtain soil samples at various depths below the land surface.
SC	Site Characterization	Used to determine if Remedial Investigation is need . Typically consists of two parts: a records search to identify potential areas of concern, and a field investigation to inspect and sample those areas.
SCADA	Supervisory Control and Data Acquisition	A system of instruments (e.g., flow meters, transducers, thermocouplers) that are operated and/or monitored by a computerized system for control of a remedial process.
SCAPS	Site Characterization and	A field screening method that uses fluorescence to

Acronym	Glossary	Definition
	Analysis Penetrometer System	detect petroleum hydrocarbon compounds through a probe pushed into the ground.
SCBA	Self-Contained Breathing Apparatus	A device worn to provide breathable air in a hostile environment.
scfm	standard cubic feet per minute	Unit of measurement used for gaseous volume flow rate, generally used for air.
SCO	Site Closeout	The final step for IR sites. SC is reached when no further response actions under the IRP are appropriate or anticipated and the regulatory agencies concur. For NPL sites, this step will include following the proper procedure for deletion from the NPL according to the NCP (40 CFR 300.425). Actual SC is the date that the deletion appears in the Federal Register. It is only under unusual circumstances that a site that has been closed out will be reopened.
SCS	Soil Conservation Service	Under the Department of Agriculture, SCS has a long-term working relationship with the agricultural community and has proven ability to provide interdisciplinary technical assistance.
SD	Standard Deviation	The square root of the variance of a set of values. A statistic used as a measure of dispersion, or separation, in a distribution of values. Small standard deviations represent closer values and smaller distribution of those values.
SDI	Subchronic Daily Intake	Exposure expressed as mass of a substance contacted per unit body weight per unit time, averaged over a lifetime.
SDL	Sample Detection Limit	A Sample Detection Limit (SDL) is defined as the Method Detection Limit (MDL) multiplied by the dilution factor required to analyze the sample, and corrected for moisture or sample size.
SDTS	Spatial Data Transfer Standards	A comprehensive transfer standard for Earth-referenced data which may be used to transfer all types of spatial data between dissimilar computer systems.
SDWA	Safe Drinking Water Act	Established to protect the quality of drinking water in the U.S. This law focuses on all waters actually or potentially designed for drinking use, whether from above ground or underground.
Se	Selenium	A gray, nonmetallic chemical element of the sulfur group, existing in many forms, used in photoelectric devices.
SEAM	Superfund Exposure Assessment Manual	Guidance for assessing contaminant release, environmental fate and transport, and human exposure to contaminants emanating from hazardous waste sites.
SEAR	Surfactant-Enhanced Aquifer Remediation	Partnership formed to conduct research, development, and field scale application of surfactant-based technologies which address subsurface contamination by non-aqueous phase liquids.
SECNAV	Secretary of the Navy	The individual who is responsible for, and has the authority to conduct, all the affairs of the Department of the Navy.
SEM	Scanning Electron Microscope	Microscopes that use a beam of highly energetic electrons to examine objects on a very fine scale. (10,000x plus magnification)

Acronym	Glossary	Definition
SEM:AVS	Simultaneously Extractable Metal:Acid Volatile Sulfide	Method of extracting metal and sulfide from the sediment at the same time. The ratio of metals to sulfides gives a good estimate of bioavailability.
SERDP	Strategic Environmental Research and Development Program	The DoD's corporate environmental research and development program, planned and executed in full partnership with other Federal and non-Federal organizations.
SET	Solvated Electron Treatment	A mixture of anhydrous ammonia and sodium metal creates solvated electrons. These free electrons produce a strong reducing agent that removes halogens and reduces other contaminants.
SET tm	Solvated Electron Technology	Patented non-thermal process for soil remediation that uses sodium or calcium generated solvated electrons as a reducing agent.
SF	Slope Factor	A plausible upper-bound estimate of the probability of a response per unit intake of a chemical over a lifetime. The slope factor is used to estimate an upper-bound probability of an individual developing cancer as a result of a lifetime of exposure to a particular level of a potential carcinogen.
sf/day	square feet/day	Unit of measurement used used to express area per unit time. For instance, this can be used to express how fast a surface is painted, coated, applied or how fast a field is irrigated.
SI	Site Inspection	An on-site investigation to determine whether there is a release or potential release and the nature of the associated threats. The SI consists of limited sampling and analysis designed to verify the findings of the Preliminary Assessment. The data collected must also support the decision to continue to the RI/FS phase or remove the site from further investigation.
SIMA	Shore Intermediate Maintenance Activity	U.S. Navy Command that provides intermediate level maintenance support and selective maintenance training to surface ships, submarines, and other shore activities.
SITE	Superfund Innovative Technology Evaluation	EPA program to promote development and use of innovative treatment technologies in Superfund site cleanups.
SMP	Site Management Plan	Used as a tool for planning, reviewing, and setting priorities within the Installation Restoration Program. It provides the chronological history, schedules of activities, and current status of each site.
SNARL	Suggested No Adverse Response Level	Expressed in milligrams of contaminant per liter, is the highest exposure level in drinking water where adverse (noncarcinogenic) health effects would not be expected.
SNDL	Standard Navy Distribution List	Standard Navy Distribution List
SO2	Sulfur Dioxide	A pungent, colorless, gaseous pollutant formed primarily by the combustion of fossil fuels.
SOFA	Status of Forces Agreement	An international agreement between a foreign nation and the U. S. defining responsibilities of each signee regarding environmental responsibilities at the host activity.
Soil Washing	Soil Washing	Soil washing is a treatment technology that uses liquids (usually water, sometimes combined with chemical additives) and a mechanical process to removes

Acronym	Glossary	Definition
		hazardous contaminants from soil.
SOP	Standard Operating Procedure	A detailed written description of how a laboratory executes a particular procedure or method. It is intended to standardize the performance of the procedure.
SOW	Scope of Work	Describes the elements and work that must be performed.
SPCC	Spill Prevention Control and Countermeasures Plan	A contingency plan covering the release of hazardous substances as defined in the Clean Water Act. The SPCC identifies emergency control measures, points of contact, the chain of command, and individual responsibilities within the plan.
SPCC	System Performance Check Compounds	Target compounds designated to monitor chromatographic performance, sensitivity, and compound instability or degradation on active sites.
SpG	Specific Gravity	The mass of a material as compared with the mass of an equal volume of reference material. Water is the reference material for liquids and solids, while air is the reference material for gases. Specific gravity is dimensionless. If the specific gravity is less than one, the material is lighter than water or gas and will float or rise. If the specific gravity is greater than one, the material is heavier than water or gas and will sink or fall.
SQL	Sample Quantitation Limit	The quantity of a substance that can be reasonably quantified given the limits of detection for the methods of analysis and sample characteristics that may affect quantitation.
SR	Specific Retention	The amount of water that will not drain from a unit amount of material by gravity and remains attached to the solids or the material.
sROD	Streamlined ROD	A new innovation in Record of Decision (ROD) documentation, a flexible streamlined Record of Decision (sROD) contains the critical elements needed to document that the selected remedy complies with CERCLA & NCP. The sROD consists of a ROD document and a Reference CD.
SS	Specific Storage Coefficient	The volume of water which a unit volume of an aquifer releases from storage or adds to it per unit decline or rise in the average head within the unit volume of the aquifer.
SSI	Screening Site Inspection	Conducted to support the Hazardous Ranking System and hazard ranking numbers assigned to the site.
SSL	Soil Screening Level	EPA methodology to calculate risk-based, site-specific levels for contaminants in soil that may be used to identify areas needing further investigation at National Priority List sites.
SSO	Site Safety Officer	The Site Safety officer (SSO) will coordinate with the Safety Officers of all responding HazMat teams and will ensure compatibility of all of the various site safety plans with the overall site safety plan.
SSP	Site Safety Plan	A crucial element in all response actions, it includes information on equipment being used, precautions to be taken, and steps to take in the event of an on-site emergency.
SSTL	Site Specific Target Level	Part of a Risk-Based Corrective Action approach

Acronym	Glossary	Definition
		designed to develop risk-based clean-up standards.
STEL	Short Term Exposure Limit	The concentration to which workers can be exposed continuously for a short period of time without suffering from: irritation, chronic or irreversible tissue damage, or narcosis.
STORET	USEPA's Computer System for the Storage and Retrieval of Water Quality Data	A repository for water quality, biological, and physical data.
STP	Site Treatment Plans	Plan for developing treatment technologies and capabilities required by the Federal Facilities Compliance Act.
SV	Sampling Visit	An optional step in the RCRA facility Assessment process, it is usually in the facilities best interest to conduct sampling to confirm if there has been a release.
SVE	Soil Vapor Extraction	An in situ soil aeration process designed and operated to maximize the volatilization of low-molecular-weight compounds, with some biodegradation occurring.
SVOC	Semi-Volatile Organic Compound	1) Compounds that do not readily volatilize at standard temperature and pressure. 2) Compounds amenable to analysis by extraction of the sample with an organic solvent. Used synonymously with base neutral acid or extractable compounds.
SW	Surface Water	All water naturally open to the atmosphere (rivers, lakes, reservoirs, ponds, streams, impoundments, seas, estuaries, etc.) and all springs, wells, or other collectors directly influenced by surface water.
SWDA	Solid Waste Disposal Act	Requires Federal facilities to comply with all Federal, State, interstate, and local requirements concerning the disposal and management of solid wastes.
SWMF	Solid Waste Management Facility	1) Any resource recovery system or component thereof. 2) Any system, program, or facility for resource conservation. 3) Any facility for the collection, source separation, storage, transportation, transfer, processing, treatment or disposal of solid wastes including hazardous wastes, whether such facility is associated with facilities generating such wastes or otherwise.
SWMU	Solid Waste Management Unit	Any discernible unit in which wastes have been placed at any time, regardless of whether the unit was designed to accept solid waste or hazardous waste and from which contaminants may migrate; units to include but not be limited to old landfills, wastewater treatment tanks, container storage areas, surface impoundments, waste piles, land treatment units, incinerators, injection wells, recycling operations, leaking process or waste collection sewers, and transfer stations. SWMUs include any area at a facility at which solid wastes have been routinely and systematically released. Only past releases from SWMUs that also meet the definition of a CERCLA release are eligible for remediation through the IR Program.
SY	Specific Yield	The amount of water that a unit volume of saturated permeable rock will yield when drained by gravity.
SZ	Saturated Zone	The zone of geological material that occurs below the water table, the pores of which are filled with water (soil

Acronym	Glossary	Definition
		moisture equals porosity), and the fluid pressure exceeds atmospheric.

ERB Glossary – S

Acronym	Glossary	Definition
	sacrificial anode	An easily corroded material deliberately installed in a pipe or tank to give it up (sacrifice) to corrosion while the rest of the water supply facility remains relatively corrosion free.
	safe	Condition of exposure under which there is a practical certainty that no harm will result to exposed individuals.
	safe water	Water that does not contain harmful bacteria, toxic materials, or chemicals and is considered safe for drinking even though it may have taste, odor, color and certain mineral problems.
	safe yield	The annual amount of water that can be taken from a source or supply over a period of years without depleting that source beyond its ability to be replenished naturally in "wet years".
	salinity	A measure of the amount of salt in water.
	salt water intrusion	The phenomenon occurring when a body of salt water, because of its greater density, invades a body of fresh water. This may be caused by a loss of pressure in a fresh water aquifer.
	salts	Minerals that water picks up as it passes through the air, over and under the ground, or from households and industry.
	salvage	The utilization of waste materials.
	sanctions	Actions taken by the federal government for failure to plan or implement a State Improvement Plan (SIP). Such action may include withholding of highway funds and a ban on construction of new sources of potential pollution.
	sand	Unconsolidated rock and mineral particles with diameters ranging from 1/16 to 2 mm
	sand filters	Devices that remove some suspended solids from sewage. Air and bacteria decompose additional wastes filtering through the sand so that cleaner water drains from the bed.
	sanitary landfill	See Landfills.
	sanitary sewers	Underground pipes that carry off only domestic or industrial waste, not storm water.
	sanitary survey	An on-site review of the water sources, facilities, equipment, operation and maintenance of a public water system to evaluate the adequacy of those elements for producing and distributing safe drinking water.
	sanitary waste	Wastes, such as garbage, that are generated by normal housekeeping activities and that are not hazardous or radioactive.

Acronym	Glossary	Definition
	sanitary water (gray water)	Water discharged from sinks, showers, kitchens, or other nonindustrial operations, but not from commodes.
	sanitation	Control of physical factors in the human environment that could harm development, health, or survival.
	saturation	The condition of a liquid (water) when it has taken into solution the maximum possible quantity of a given substance at a given temperature and pressure.
	scalar	A measure that only has magnitude, e.g., time and temperature.
	scientific notation	A method of writing numbers in terms of powers of ten; e.g., the number 0.000118 would be represented as 1.18×10^{-4} or 1.18E-04 where E stands for exponent, as in the exponent that 10 is raised by.
	scrap	Materials discarded from manufacturing operations that may be suitable for reprocessing.
	screening	Use of screens to remove coarse floating and suspended solids.
	secondary drinking water regulations	Non-enforceable regulations applying to public water systems and specifying the maximum contamination levels that, in the judgment of EPA, are required to protect the public welfare. These regulations apply to any contaminants that may adversely affect the odor or appearance of such water and consequently may cause people served by the system to discontinue its use.
	secondary materials	Materials that have been manufactured and used at least once and are to be used again.
	sediment	1) Material borne and deposited by water. 2) Soil, sand, and minerals washed from land into water, usually after rain. They pile up in reservoirs, rivers and harbors, destroying fish and wildlife habitat, and clouding the water so that sunlight cannot reach aquatic plants. Careless farming, mining, and building activities will expose sediment materials, allowing them to wash off the land after rainfall.
	sediment yield	The quantity of sediment arriving at a specific location.
	sedimentation	1) Letting solids settle out of wastewater by gravity during treatment. 2) Solids naturally settling out of slow water in rivers, streams and other water bodies.
	sedimentation tanks	Wastewater tanks in which floating wastes are skimmed off and settled solids are removed for disposal.
	seepage	Percolation of water through the soil from unlined canals, ditches, laterals, watercourses, or water storage facilities.
	selected ion monitoring	A data acquisition method for mass spectrometry in which only selected and diagnostic ions are measured, thereby increasing sensitivity and lowering detection limits.
	semi-confined aquifer	An aquifer partially confined by soil layers of low permeability through which recharge and discharge can still occur.
	semilog paper	Graph paper having one logarithmic and one arithmetic scale.

Acronym	Glossary	Definition
	sensitivity	The slope of the analytical curve, i.e., functional relationship between emission intensity and concentration.
	settleable solids	Material heavy enough to sink to the bottom of a wastewater treatment tank.
	settling tank	A holding area for wastewater, where heavier particles sink to the bottom for removal and disposal.
	sewage	The waste and wastewater produced by residential and commercial sources and discharged into sewers.
	sewage sludge	Sludge produced at a Publicly Owned Treatment Works, the disposal of which is regulated under the Clean Water Act.
	sewage treatment plant	Typically consists of a complex of tanks, piping and sludge management areas used to treat sanitary sewage. The unit may use chemical or biological treatment methods.
	sewer	A channel or conduit that carries wastewater and storm water runoff from the source to a treatment plant or receiving stream. "Sanitary" sewers carry household, industrial, and commercial waste. "Storm" sewers carry runoff from rain or snow. "Combined" sewers handle both.
	sheet pile wall	Impermeable barrier consisting of steel sheets driven into the ground.
	Shelby tube	A thin-walled, tubular device pressed into an open bore hole to obtain an undisturbed core sample of unconsolidated strata.
	short-circuiting	Undesirable condition in which air flows unevenly through a biopile due to the existence of low-resistance pathways.
	shredding	Mixing and grinding soil to improve homogeneity and increase permeability.
	shrinking plume	The situation in which a groundwater plume margin is receding toward the source area and concentrations within the plume are decreasing over time.
	sieve analysis	Determination of the particle size distribution of soil, sediment or rock by measuring the percentage of the particles that will pass through standard sieves of various sizes.
	significant deterioration	Pollution resulting from a new source in previously "clean" areas.
	significant violations	Violations by point source dischargers of sufficient magnitude or duration to be a regulatory priority.
	silt	Sedimentary materials composed of fine mineral particles with diameters ranging from 0.0002 to 0.05 mm.
	sink	1) Place in the environment where a compound or material collects. 2) A process in which chemicals are removed from the environment or are otherwise made no longer available. For example, the ocean is a sink for CO ₂ because crustaceans use a significant amount in building their shells of calcium carbonate (CaCO ₃). This is very important in modeling the importance of CO ₂ in

Acronym	Glossary	Definition
		the greenhouse effect.
	site	1) A single unit where hazardous substances have been deposited, stored, disposed of, or placed. An NPL site is also defined as consisting of all contaminated areas within the area used to define the site, and any other location to or from which contamination from that area has come to be located. The NPL site would include all releases evaluated as part of the HRS analysis. 2) As defined by the Relative Risk Site Evaluation Primer, a site is a discrete area where suspected contamination has been verified, requiring further response action. A site by definition has been, or will be, entered into the Navy Restoration Management Information System (RMIS).
	site assessment program	A means of evaluating hazardous waste sites through preliminary assessments and site inspections to develop a Hazard Ranking System score.
	siting	The process of choosing a location for a facility.
	six-phase heating	A remediation process that involves the in situ application of six-phase electrical current that heats soil to moderate temperatures in order to remove, vaporize, and/or collect volatile and semi volatile contaminants. (Also referred to as electrical conductive heating.)
	skimming	Using a machine to remove oil, other hydrocarbon products, or scum from the surface of water.
	skin absorption	The introduction of a chemical or toxic product into the body by way of the skin. Skin absorption can occur with no sensation to the skin itself.
	sludge	Any solid, semisolid or liquid waste generated from municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility or any other such waste having similar characteristics and effects. It can be a hazardous waste.
	slug test	A single well test conducted to determine the in situ hydraulic conductivity of low to moderate hydraulic conductivity formations by the instantaneous addition, or removal, of a known volume of water or solid object, to or from a well. The subsequent well recovery is measured.
	slurry	A watery mixture of insoluble matter resulting from some pollution control techniques.
	slurry wall	An underground wall design to stop groundwater flow; constructed by digging a trench and backfilling it with a slurry rich bentonite clay or equivalent.
	smear zone	Refers to NAPL that is adhered to a geological formation over a zone that is at times above the water table and at other times below the water table as a result of water table fluctuations.
	soil	A mixture of organic and inorganic solids, air, water, and biota which exists on the earth surface above bedrock, including materials of anthropogenic sources, such as slag, sludge, etc.
	soil gas	Gaseous elements and compounds in the small spaces

Acronym	Glossary	Definition
		between particles of the earth and soil. Such gases can be moved or driven out under pressure.
	soil gas permeability	A soil's capacity to allow gas flow. The soil gas permeability varies according to grain size, soil uniformity, porosity, and moisture content.
	soil matrix	Soil as the environmental media containing contaminants.
	soil type	System of classification of soils based on physical properties.
	sole-source aquifer	1) As defined by the Safe Drinking Water Act, an aquifer that is the only source or potential source of drinking water in an area. 2) An aquifer that supplies 50-percent or more of the drinking water of an area.
	solid waste disposal	The final placement of refuse that is not salvaged or recycled.
	solid waste management	The systematic administration of activities which provide for the collection, source separation, storage, transportation, transfer, processing, treatment, and disposal of solid waste.
	solid waste management units	Any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges which are point sources subject to permits under section 402 of the Federal Water Pollution Control Act, or source, special nuclear or byproduct material as defined by the Atomic Energy Act of 1954.
	solidification	1) A treatment process that reduces the mobility of a contaminant by physically restricting its contact with a mobile phase. Solidification is usually accompanied by some form of stabilization. 2) The use of binders for waste bulking to facilitate the handling of liquid wastes.
	solidification and stabilization	Removal of wastewater from a waste or changing it chemically to make it less permeable and susceptible to transport by water.
	solubility	An upper limit on a chemical's dissolved concentration in water at a specified temperature. Aqueous concentrations in excess of solubility may indicate sorption onto sediments, the presence of solubilizing chemicals such as solvents, or the presence of a non-aqueous phase liquid (such as free floating fuel).
	solubilization	Increasing solubility of a substance so that it can dissolve more.
	solute	A substance dissolved in another substance, usually, the component of a solution present in the lesser amount.
	solvent	A substance, usually liquid, that is capable of dissolving another substance to form a solution.

Acronym	Glossary	Definition
	solvolysis	A reaction in which the solvent serves as the nucleophile.
	sorb	To take up or hold by means of adsorption or absorption
	sorbed phase	The thin layer of material held near the surface of soil particles by physical and chemical interactions.
	sorption	The action of soaking up or attracting substances; process used in many pollution control systems. Also the general term for physical and chemical absorption and adsorption.
	source	An area where hazardous substances or petroleum products have been deposited, stored, released, disposed of , or placed.
	source (nonpoint)	A contribution of contaminants to the environment that is not derived from a specific location, property, or incident.
	source (point)	A location, property, or incident that has introduced contaminants to the environments; Navy source versus non-Navy source.
	source removal	Extraction of contamination from its place or origin or accumulation in the subsurface.
	source zone	The zone of an aquifer where contaminants originated; in reference to DNAPL, the zone where contamination exists in an undissolved (i.e., no-aqueous) phase.
	sparging	A process in which gases (usually clean air) are injected directly into an aquifer for remediation of contaminated groundwater through a combination of volatilization and enhanced biodegradation of contaminants. The induced air transport through the groundwater removes the more volatile and less soluble contaminants by physical stripping, and the increased oxygen availability in the groundwater stimulates increased biological activity (including degradation of contaminants). Air sparging can be divided into two distinct processes - in-well aeration and air injection.
	special waste	Items such as household hazardous waste, bulky wastes (refrigerators, pieces of furniture, etc.), tires, and used oil.
	species	A reproductively isolated aggregate of interbreeding organisms.
	specific conductance	Rapid method of estimating the dissolved solid content of a water supply by testing the capacity of the water to carry an electrical current.
	spike	Known amounts of specific chemical constituents added by the laboratory to selected samples to test the appropriateness and recover efficiencies of specific analytical methods within the actual sample matrices.
	split spoon sampler	A hollow, tubular sampling device driven by a 140 pound weight below the depth of drilling to retrieve representative samples of the formation.
	spoil	Dirt or rock removed from its original location, destroying the composition of the soil in the process, as in strip-mining, dredging, or construction.
	spring	Groundwater seeping out of the earth where the water

Acronym	Glossary	Definition
		table intersects the ground surface.
	stabilization	1) A treatment process whereby chemical molecules become chemically bound by a stabilizing agent (e.g., clay, humic materials), reducing the mobility of the contaminant in groundwater, soil, or sediment. 2) Conversion of the active organic matter in sludge into inert, harmless material.
	stabilization ponds	See Lagoon.
	stable plume	The situation in which a groundwater plume margin is stationary and concentrations at points within the plume do not change over time.
	staged electronic data deliverable	An open source (nonproprietary) uniform format developed by EPA in collaboration with DoD for transmitting environmental data electronically from a laboratory.
	standards	1) The combined application of numeric criteria and narrative policy in order to protect human health and the environment. 2) Norms that impose limits on the amount of pollutants or emissions produced. EPA establishes minimum standards, but states are allowed to be stricter.
	static water level	1) Elevation or level of the water table in a well when the pump is not operating. 2) The level or elevation to which water would rise in a tube connected to an artesian aquifer, or basin, in a conduit under pressure.
	steady state	A stable condition that does not change over time or in which change in one direction is continually balanced by change in another.
	step test	A small to large scale aquifer pumping test where the withdrawal rates are varied over time to assess aquifer characteristics.
	sterilization	The removal or destruction of all microorganisms, including pathogenic and other bacteria, vegetative forms and spores.
	storage	1) Temporary holding of waste pending treatment or disposal, as in containers, tanks, waste piles, and surface impoundments. 2) When used in connection with hazardous waste, the containment of hazardous waste, either on a temporary basis or for a period of years, in such a manner as not to constitute disposal of such hazardous waste.
	storativity	The volume of water an aquifer releases from or takes into storage per unit surface area of the aquifer, per unit change in head. It is equal to the product of specific storage and aquifer thickness. In an unconfined aquifer, the storativity is equal to the specific yield. Synonym - Storage Coefficient.
	storm sewer	A system of pipes (separate from sanitary sewers) that carries only water runoff from buildings and land surfaces.
	stratification	Separating into layers.
	stratigraphy	The relationship of formation composition, sequence and correlation in layered rocks or sediments.

Acronym	Glossary	Definition
	stratosphere	The portion of the atmosphere 10 to 25 miles above the earth's surface.
	subchronic	Of intermediate duration, usually used to describe studies or levels of exposure between 5 and 90 days.
	submerged aquatic vegetation	Vegetation such as sea grasses that cannot withstand excessive drying and therefore live with their leaves at or below the water surface; an important habitat for young fish and other aquatic organisms.
	substitution	A reaction in which one substituent on a molecule is replaced by another.
	substrate	1) The base on which an organism lives. 2) A reactant in a microbial respiration reaction (electron donor).
	sulfate reducer	A microorganism that exists in anaerobic environments and reduces sulfate to hydrogen sulfide.
	Summa canister	A Summa canister is a stainless steel vessel which has had the internal surfaces specially passivated using a "Summa" process. This process combines an electropolishing step with chemical deactivation to produce a surface that is chemically inert. A Summa surface has the appearance of a mirror, bright and shiny. They are used to collect ambient air samples over time.
	sump	A pit or tank that catches liquid runoff for drainage or disposal.
	supercritical water	A type of thermal treatment using moderate temperatures and high pressures to enhance the ability of water to break down large organic molecules into smaller, less toxic compounds. Oxygen injected during this process combines with simple organic compounds to form carbon dioxide and water.
	Superfund	A trust fund set up under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) to help pay for cleanup of hazardous waste sites and for legal action to force those responsible for the sites to clean them up.
	Superfund Program	The program operated under the legislative authority of CERCLA and SARA that funds and carries out EPA solid waste emergency and long-term removal and remedial activities. These activities include establishing the National Priorities List, investigating sites for inclusion on the list, determining their priority, and conducting and/or supervising the cleanup and other remedial actions.
	support zone	A safe area at an incident or cleanup for those agencies directly involved in the operation, including the Incident Commander, Emergency Medical Service providers, etc.
	surface impoundment	Treatment, storage, or disposal of liquid hazardous wastes in ponds.
	surface runoff	Precipitation, snow melt, or irrigation in excess of what can infiltrate the soil surface and be stored in small surface depressions; a major transporter of nonpoint source pollutants.

Acronym	Glossary	Definition
	surface tension	A property of liquids arising from unbalanced molecular cohesive forces at or near the surface, as a result of which the surface tends to contract and has properties resembling those of a stretched elastic membrane.
	surface to volume ratio	The surface area of an object relative to its volume.
	surfactant	A detergent compound that promotes lathering. Often used as a spill control measure and in remediation systems.
	surrogate	Generally organic compounds which are not target analytes, but are similar to target analytes in chemical composition, extraction, and chromatography, but which are not normally found in environmental samples. These compounds are added to samples to assess analytical performance of a method. They are spiked into all blanks, samples, and spiked samples prior to analysis. Percent recoveries are calculated for each surrogate.
	surrogate sampling device	A secondary or substitute sampling device.
	surveillance system	A series of monitoring devices designed to check on environmental conditions.
	suspended load	Sediment particles maintained in the water column by turbulence and carried with the flow of water.
	suspended solids	Small particles of solid pollutants that float on the surface of, or are suspended in, sewage or other liquids. They resist removal by conventional means.
	sustainable ranges	Ranges that are managed and operated to support their long-term viability and utility to meet the National defense mission.
	swamp	A type of wetland dominated by woody vegetation but without appreciable peat deposits. Swamps may be fresh or salt water and tidal or non-tidal. See Wetlands.
	synergism	An interaction of two or more chemicals which results in an effect that is greater than the sum of their effects taken independently.
	synthetic	Describing that which is made by synthesis, especially not of natural origin.

ERB Acronym and Glossary – T

Acronym	Glossary	Definition
T	data qualifiers - method (analytical) qualifier - T	Titrimetric.
T	data qualifiers - organic analysis - T	Compound present in the TCLP blank.
T	Transmissivity	1) The ability of an aquifer to transmit water. 2) The rate at which water of the prevailing kinematic velocity is transmitted through a unit width of the aquifer under a unit of hydraulic gradient. Normally ranges from 1,000 to 1,000,000 gal/day/ft.
T2	Technology Transfer	Transfer of technology originally developed by the Navy to other government organizations, laboratories, contractors, or commercial enterprises.
TABQUIK	TABQUIK	Commercial Off the Shelf (COTS) software for color coded tabs used in document and records management filing systems.
TAG	Technical Assistance Grant	Specific allotments (up to \$50,000 for a single grant recipient) are made available by the Office of the President to any group of individuals which may be affected by a release or threatened release at any installation which is listed on the NPL under the NCP. Such grants may be used to obtain technical assistance in interpreting information with regard to the nature of the hazard, RI/FS, ROD, RD, selection and construction of the RA, operation and maintenance, or removal action at such facility.
TAL	Target Analyte List	In the Superfund program, a standard list of metals to analyze in samples of various media.
TAPP	Technical Assistance for Public Participation	Program to assist Restoration Advisory Board and Technical Review Committee members in obtaining independent assistance in interpreting data related to restoration activities.
TAT	Technical Applications Team	Assist project managers with technical issues associated with the Ecological Risk Assessment process.
TBC ARAR	To Be Considered Applicable or Relevant and Appropriate Requirement	Requirements, including cleanup standards, standards of control and other substantive environmental protection requirements and criteria, for hazardous substances.
TBC Requirements	To Be Considered Requirements	Non-promulgated advisories (such as reference doses or potency factors), criteria, and guidance issued by Federal and state governments and not having the same status as ARARs; supplement ARARs where they do not exist or are insufficient to protect human health and the environment.
TBD	Technical Background Document	Are intended as guidance to Environmental Protection Agency personnel; they are not final EPA actions and do not constitute rulemaking.
TBT	Tributyltin	A tin-based chemical sprayed on ship hulls to control barnacles and other sea life that attach to hulls. It is extremely toxic to sea life. Also Tributyl Tin
TC	Toxicity Characteristic	The Environmental Protection Agency issued a final toxicity characteristic rule under the authority of and of

Acronym	Glossary	Definition
		the Hazardous and Solid Waste Amendments.
TCA	Trichloroethane	An organic liquid with a chloroform-like order. It is largely used as a solvent removing grease from machined metal products, in textile processing and dyeing and in aerosols.
TCE	Trichloroethene	A stable, volatile, colorless liquid with an ethereal, sweet odor. Uses include solvent extraction in industries, solvent for fats, coaxes, resins, oils, and paints; degreasing; dry cleaning; and manufacturing of organic chemicals and pharmaceuticals. It is a strong skin and eye irritant. Acute exposure by inhalation can cause death by cardiac failure. Liver and other organ damage has been implicated through chronic exposure. Synonym - Trichloroethylene.
TCE	Trichloroethylene	A stable, volatile, colorless liquid with an ethereal, sweet odor. Uses include solvent extraction in industries, solvent for fats, coaxes, resins, oils, and paints; degreasing; dry cleaning; and manufacturing of organic chemicals and pharmaceuticals. It is a strong skin and eye irritant. Acute exposure by inhalation can cause death by cardiac failure. Liver and other organ damage has been implicated through chronic exposure. Synonym - Trichloroethylene.
TCL	Target Compound List	In the Superfund program, a standard list of compounds to analyze in samples of various media. The compounds include Volatile Organics, Semi-Volatile Organics, Pesticides, and Polychlorinated Biphenyls.
TCLP	Toxicity Characteristic Leaching Procedure	An analytical method ζ
TCP	Trichlorophenol	White to pinkish yellow fluffy solid. Used in fungicide, herbicide, insecticide, antiseptic, defoliant, and glue preservative.
TDS	Total Dissolved Solids	All material that passes the standard glass river filter; now called total filterable residue. The term is used to reflect salinity.
TEAM	Total Exposure Assessment Model	Environmental Protection Agency studies used statistically sampled populations to unravel the relationships between exposure to toxic substances and absorption by body tissue.
TeCP	Tetrachlorophenol	A type of chlorophenol, classified in Group VA. Chlorophenols are widely used in pesticides.
TEF	Toxicity Equivalence Factor	Permits conversion of polychlorinated dibenzo-p-dioxins and/or polychlorinated dibenzofurans concentrations into a toxicologically equivalent concentration.
TENEP	The Electronic Network of Environmental Professionals	An on-line network providing environmental professionals with a forum for discussion on various environmental topics.
TEO	Total Extractable Organics	Commonly referred to as "lipids", are any group of organic compounds consisting of fats and other substances of similar properties.
TEX	Toluene, Ethylbenzene and Xylene	Chemical compounds including toluene, ethylbenzene, and xylene.
THC	Total Hydrocarbons	Most hydrocarbon emissions data from mobile sources is measured as total hydrocarbon. It is the measured

Acronym	Glossary	Definition
		hydrocarbon emissions using a Flame Ionization Detector calibrated with propane.
THM	Trihalomethane	One of a family of organic compounds named as derivative of methane. THMs are generally by-products of chlorination of drinking water that contains organic material.
THOMAS	THOMAS Legislative Information on the Internet	An Internet site provided by the U.S. Congress providing Federal legislative information.
TI	Technical Impracticability	Documentation of information needed to determine whether restoration of a particular site is technically impracticable.
TIC	Tentatively Identified Compound	Compounds detected in samples that are not target compounds, internal standards or surrogate standards. Up to 30 peaks are subjected to mass spectral library searches for tentative identification. The assigned identity may be inaccurate, as well as any quantitation.
TIE	Toxicity Identification Evaluation	Studies that aid in characterizing and managing toxic freshwater and marine sediments. When properly executed, they help identify classes of stressors that cause toxicity to aquatic life.
TIO	Technology Innovation Office, EPA	Now known as TIP - Technology Innovation Program
TIP	Technology Innovation Program, EPA	Formerly known as TIO - Technology Innovation Office
TKN	Total Kjeldahl Nitrogen	The sum of ammonia-nitrogen and organic nitrogen.
TI	Thallium	A rare, poisonous, bluish-gray, soft, metallic chemical element, used in making photoelectric cells.
TL	Trigger Level	A concentration of a contaminant which, if exceeded, will trigger further evaluation of the site. Navy policy requires the establishment of trigger levels when entering long-term monitoring.
TLV	Threshold Limit Value	Threshold Limit Values are established by the American Conference of Governmental Industrial Hygienists (ACGIH). TLVs refer to airborne concentrations of a substance and represent conditions under which is believed that nearly all workers may be exposed day after day without adverse effect. TLVs may be expressed in three ways:
TLV-C	Threshold Limit Value - Ceiling Exposure Limit	Ceiling Exposure Limit or maximum exposure concentration not to be exceeded under any circumstances (TWA must still be met).
TLV-STEL	Threshold Limit Value - Short-term exposure limit	Short-term exposure limit or maximum concentration for a brief specified period of time, depending on a specific chemical (TWA must still be met); and
TLV-TWA	Threshold Limit Value -Time-weighted average	Time-weighted average, based on an allowable exposure averaged over a normal 8-hour workday or 40-hour workweek;
TMV	Toxicity, Mobility, Volume	Degree to which an alternative reduces (1) the harmful nature of the contaminants, (2) their ability to move through the environment, and (3) the amount of contamination at the site.
TNT	Trinitrotoluene	Pale yellow granular solid manufactured compound used as an explosive.

Acronym	Glossary	Definition
TO14, TO15, TO17	TO14, TO15, TO17	EPA toxic organic analytical methods for volatile organic compounds in air samples. TO14 and TO15 are for samples collected in canisters. TO17 analyzes samples concentrated on an adsorbent.
TO15 SIM	TO15 SIM	A variation of TO15 that allows ultra-low detection levels on a short list of compounds
TOA	Trace Organic Analysis	An analyses for organic compounds present at or below the part-per-thousand level in a sample.
TOC	Total Organic Carbon	An analytical method ζ
TOX	Total Organic Halogens	A measure of the total concentration of organic compounds that have one or more halogen atoms.
TPAH	Total Polycyclic Aromatic Hydrocarbons	A group of chemicals that are formed during the incomplete burning of coal, oil, gas, wood, garbage, or other organic substances, such as tobacco and charbroiled meat. PAHs generally occur as complex mixtures (for example, as part of combustion products such as soot), not as single compounds. PAHs usually occur naturally, but they can be manufactured as individual compounds for research purposes; however, not as the mixtures found in combustion products. As pure chemicals, PAHs generally exist as colorless, white, or pale yellow-green solids.
tpd	tons per day	unit of measurement used to express the amount of material in tons moved per day
TPH	Total Petroleum Hydrocarbons	A measure of the concentration or mass of petroleum hydrocarbon constituents present in a given amount of air, soil, or water. The term total is a misnomer, in that few, if any, of the procedures for quantifying hydrocarbons are capable of measuring all fractions of petroleum hydrocarbons present in the sample.
TPQ	Threshold Planning Quantity	A quantity designated for each chemical on the list of extremely hazardous substances that triggers notification by facilities to the State Emergency Response Commission that such facilities are subject to emergency planning requirements under SARA Title III.
TQL	Total Quality Leadership	A strategy used by DoD to continuously improve performance at every level and in all areas of responsibility.
TQM	Total Quality Management	Combines fundamental management techniques, existing improvement efforts, and specialized technical tools under a disciplined structure focused on continuously improving all processes, products and services.
TQM/TQL	Total Quality Management/Total Quality Leadership	A strategy used by DoD to continuously improve performance at every level and in all areas of responsibility. Combines fundamental management techniques, existing improvement efforts, and specialized technical tools under a disciplined structure focused on continuously improving all processes, including products and services.
trans 1,2-DCE	trans 1,2-Dichloroethene	A chemical breakdown product of the more halogenated forms of ethene, Tetrachloroethene and Trichloroethene. Also used as an industrial solvent and is volatile.

Acronym	Glossary	Definition
TRC	Technical Review Committee	A group of technically cognizant individuals responsible for reviewing technical reports and data for a site. This assemblage should be established after a release or threat of a release has been confirmed at an installation, normally at the end of a Preliminary Assessment or Site Investigation. A TRC shall be established at all installations, whether NPL or non-NPL for the purpose of reviewing and commenting on actions and proposed actions concerning releases or threatened releases at the installation. The TRC shall consist of (but not be limited to) at least one representative from the installation and cognizant Engineering Field Division (EFD), EPA, appropriate state and local authorities, and a public representative of the community involved. It should be noted that the TRC is not an advisory group nor a decision-making body. DON policy is to convert all TRCs to Restoration Advisory Boards (RABs).
TRI	Toxic Release Inventory	Database of toxic releases in the United States compiled from SARA Title III section 313 reports.
TRPH	Total Recoverable Petroleum Hydrocarbons	An EPA method (418.1) for measuring total petroleum hydrocarbons in samples of soil or water. Hydrocarbons are extracted from the sample using a chlorofluorocarbon solvent (typically Freon-113) and quantified by infrared spectrophotometry. The method specifies that the extract be passed through silica gel to remove the non-petroleum fraction of the hydrocarbons.
TSCA	Toxic Substance Control Act	Enacted by Congress to give EPA the ability to track the 75,000 industrial chemicals currently produced or imported into the U.S.
TSD	Treatment, Storage, and Disposal	Hazardous waste operations including treatment, storage, and disposal, are regulated by the Environmental Protection Agency under the Resource Conservation and Recovery Act.
TSDF	Treatment, Storage, and Disposal Facility	Site where a hazardous substance is treated, stored, or disposed. TSD facilities are regulated by EPA and states under RCRA.
TSP	Total Suspended Particles	A method of monitoring particulate matter by total weight.
TSP	Total Suspended Particulates	A method of monitoring particulate matter by total weight.
TSR	Technical Support Representatives	Representatives at the Naval Facilities Engineering Service Center who provide quality, professional services to support Installation Restoration programs.
TSS	Total Suspended (non-filterable) Solids	A measure of the suspended solids in wastewater, effluent, or water bodies, determined by tests for "total suspended nonfilterable solids."
TSS	Total Suspended Solids	A measure of the suspended solids in wastewater, effluent, or water bodies, determined by tests for "total suspended nonfilterable solids." See Suspended Solids.
TTAWG	Technology Thrust Area Working Group	SERDP review committee.
TTZ	target treatment zone	The area(s) identified for remedial action, which are typically based on risk reduction and/or source reduction.

Acronym	Glossary	Definition
TVPH	Total Volatile Petroleum Hydrocarbons	An EPA method (8015M) for measuring total petroleum hydrocarbons (in gasoline) in soil or water samples.
TWA	Time-Weighted Average	In air sampling, the average air concentration of contaminants during a given period.

ERB Glossary – T

Acronym	Glossary	Definition
	tar	A chemically complex organic material produced as a by-product of the MGP process; includes coat tar, carbureted water gas tar, and oil gas tar.
	target levels	Numeric values or other performance criteria that are protective of human health, safety, and the environment.
	target zone	a volume or area of a site at which a particular remedial action is determined to best apply.
	taxon	(Taxa pl.) A group of organisms sharing common characteristics in varying degrees of distinction that constitute one of the categories in taxonomic classification, such as species, genus, subspecies, phylum, etc.
	technology based limitations	Industry specific effluent limitations applied to a discharge when it will not cause a violation of water quality standards at low stream flows. Usually applied to discharges into large rivers.
	technology based standards	Effluent limitations applicable to direct and indirect sources which are developed on a category-by-category basis using statutory factors, not including water quality effects.
	technology demonstration	A field-scale demonstration of a technology used to generate performance and cost data.
	tensor	A vector whose magnitude depends on direction, e.g., the wind can gust at 10 knots from the north and 20 knots from the west.
	teratogen	A substance or agent that causes development of abnormal structures in an embryo or fetus.
	teratogenesis	The introduction of nonhereditary birth defects in a developing fetus by exogenous factors such as physical or chemical agents acting in the womb to interfere with normal embryonic development.
	terrace deposits	Deposits of alluvium (sand, gravel, cobble or clay) which occurs along the margin and above the level of a body of water, marking a former water level.
	terracing	Dikes built along the contour of sloping farm land that hold runoff and sediment to reduce erosion.
	therapeutic index	The ratio of the dose required to produce toxic or lethal effects to dose required to produce nonadverse or therapeutic response.
	thermal desorption	An innovative treatment technology that heats soil to release contaminants.
	thermal pollution	Discharge of heated water from industrial processes

Acronym	Glossary	Definition
		that can kill or injure aquatic organisms.
	thermal treatment	Use of elevated temperatures to treat hazardous wastes. See Incineration, Pyrolysis.
	threshold	The lowest dose of a chemical at which a specified measurable effect is observed and below which it is not observed.
	threshold level	Time-Weighted Average (TWA) pollutant concentration values, exposure beyond which is likely to adversely affect human health. See Environmental Exposure.
	tidal marsh	Low, flat marshlands traversed by channels and tidal hollows, subject to tidal inundation; normally, the only vegetation present is salt tolerant bushes and grasses. See Wetlands.
	tillage	Plowing, seedbed preparation, and cultivation practices.
	tolerances	Permissible residue levels for pesticides in raw agricultural produce and processed foods. Whenever a pesticide is registered for use on a food or a feed crop, a tolerance (or exemption from the tolerance requirement) must be established. EPA establishes the tolerance levels, which are enforced by the Food and Drug Administration and the Department of Agriculture.
	tonnage	The amount of waste that a landfill accepts, usually expressed in tons per month. The rate at which a landfill accepts waste is limited by the landfill's permit.
	topography	The physical features of a surface area including relative elevations and the position of natural and man-made features.
	total excess cancer risk	The upper bound on the estimated excess cancer risk associated with exposure to multiple hazardous substances and multiple exposure pathways.
	Total Metals	An analytical method to determine analyte elements which have been digested prior to analysis.
	total site non-cancer risk	A calculation of the possibility of non-cancer health effects associated with exposure to all hazardous materials at or from a disposal site at all exposure points for a given receptor. The Hazard Index is a measure of total site non-cancer risk.
	toxic chemical	Any chemical listed in EPA rules as "Toxic Chemicals Subject to Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986."
	toxic chemical release form	Information form required of facilities that manufacture, process, or use (in quantities above a specific amount) chemicals listed under SARA Title III.
	toxic chemical use substitution	Replacing toxic chemicals with less harmful chemicals in industrial processes.
	toxic cloud	Airborne plume of gases, vapors, fumes, or aerosols containing toxic materials.
	toxic pollutants	Materials that cause death, disease, or birth defects in organisms that ingest or absorb them. The quantities and exposures necessary to cause these effects can vary widely.
	toxic substance	A chemical or mixture that may present an unreasonable risk of injury to health or the environment.

Acronym	Glossary	Definition
	toxic waste	A waste that can produce injury if inhaled, swallowed, or absorbed through the skin.
	toxicant	A harmful substance or agent that may injure an exposed organism.
	toxicity	A quantification of the degree of danger posed by a substance to animal or plant life. Toxicity is one of the four characteristics that makes a substance hazardous, as defined by RCRA.
	toxicity assessment	Characterization of the toxicological properties and effects of a chemical, with special emphasis on establishment of dose response characteristics.
	toxicity testing	Biological testing (usually with an invertebrate, fish, or small mammal) to determine the adverse effects of a compound or effluent.
	toxicological profile	An examination, summary, and interpretation of a hazardous substance to determine levels of exposure and associated health effects.
	toxicology	The science and study of poisons control.
	tracer test	Tracking the path of groundwater or groundwater contaminant by introducing a material that can be easily traced from point to point.
	trans	In a chiral (directional) organic compound, the prefix trans indicates that the substituted atoms are on opposite sides of the compound. For example, in trans 1,2-Dichloroethene, the chlorine atoms are on opposite sides of the carbon to carbon double bond. The presence or absence of cis or trans compounds can indicate whether biological activity or abiotic, chemical reactions have taken place in the environment. See cis.
	transboundary pollutants	Air pollution that travels from one jurisdiction to another, often crossing state or international boundaries.
	transient water system	A non-community water system that does not serve 25 of the same nonresidents per day for more than six months per year.
	transition coordinators	Serves as the single Federal point of contact for the community to interact with other Federal agencies, gather information, assemble documentation, provide technical assistance, and expedite actions.
	transpiration	The process by which water vapor is lost to the atmosphere from living plants. The term can also be applied to the quantity of water thus dissipated.
	transportation	The movement of hazardous substances by any mode, including a hazardous liquid pipeline facility, as defined in Pipeline Safety Act. In the case of a hazardous substance which has been accepted for transportation by a common or contract carrier, any stoppage in transit which is temporary, incidental to the transportation movement, and at the ordinary operating convenience of a common or contract carrier, shall be considered as a continuity of movement and not as the storage of a hazardous substance.
	transportation control measures	Steps taken by a locality to improve air quality by reducing or changing the flow of traffic, e.g., public

Acronym	Glossary	Definition
		transit, carpools, HOV lanes, etc.
	trash	Material considered worthless or offensive that is thrown away. Generally defined as dry waste material, but in common usage it is a synonym for garbage, rubbish, or refuse.
	trash-to-energy plan	Burning trash to produce energy.
	treatability study	A short-term investigation of how a particular technology will remediate wastes. Often, treatability studies are full-scale tests run for several weeks or months.
	treated wastewater	Wastewater that has been subjected to one or more physical, chemical, and biological processes to reduce its pollution of health hazards.
	treatment	1) Any method, technique, or process designed to remove solids and/or pollutants from solid waste, waste streams, effluents, and air emissions. 2) Methods used to change the biological character or composition of any regulated medical waste so as to substantially reduce or eliminate its potential for causing disease. 3) When used in connection with hazardous waste, any method, technique, or process, including neutralization, designed to change the physical, chemical, or biological character or composition of any hazardous waste so as to neutralize such waste or so as to render such waste nonhazardous, safer for transport, amenable for recovery, amenable for storage, or reduced in volume.
	treatment technology	Any unit operation or series of unit operations that alter the composition of a hazardous substance, pollutant or contaminant through chemical, biological, or physical means so as to reduce toxicity, mobility, or volume of the contaminated materials being treated. Treatment technologies are an alternative to land disposal of hazardous waste without treatment.
	treatment train	The implementation of multiple remedial technologies either sequentially over time, concurrently at various locations, or concurrently as multiple unit processes with a single remediation system. The entire set of technologies or unit processes applied in series to achieve reduction of target contaminants.
	trend	A direction of movement, course.
	Triad	EPA's approach to integrate systematic planning, dynamic work plans, and on-site analytical tools to meet project and program goals. Triad takes advantage of real-time results and data assessment to guide additional sampling and to minimize mobilization to reach decision points. Triad focuses site activities on project goals, rather than on analytical methods, thereby saving time and money and fostering better decisions. Triad has been demonstrated to complete projects faster, cheaper, and with greater regulatory satisfaction than the traditional phased approach to data collection. An organized framework of work strategies that exploit new data collection and interpretation tools and advances in telecommunications to support real-time, field-based decision-making. The Triad approach

Acronym	Glossary	Definition
		has been shown to decrease lifecycle costs for site investigation, cleanup, and monitoring, while increasing confidence in the protectiveness of project decisions..
	trip blank	Contaminant free water, or appropriate matrix, which accompanies bottles and samples during shipment to assess the potential for sample contamination during shipment. Trip blanks are not opened in the field and are required for Volatile Organic Analysis only.
	trophic level	A group of organisms in a food chain of an ecosystem that occupy a similar functional position in the ecosystem.
	troposphere	The layer of the atmosphere closest to the earth's surface.
	tuning	A technique used in GC/MS procedures to verify that the instrument is properly calibrated to produce reliable mass spectral information.
	turbidimeter	A device that measures the density of suspended solids in a liquid.
	turbidity	1) Haziness in air caused by the presence of particles and pollutants. 2) A cloudy condition in water due to suspended silt or organic matter.
	Tyvek	Proprietary, nonwoven fabric used for limited-use (disposable) clothing. Excellent protection against particulate contaminants.

ERB Acronym and Glossary – U

Acronym	Term	Definition
U	data qualifiers - organic analysis - U	Indicates compound was analyzed for but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture.
UBST	Underground Bulk Storage Tank	Underground tanks whose total capacity is 20,000 gallons or greater.
UCL	Upper Confidence Level	A tool for acknowledging uncertainties and variability within an environmental data set without presenting an unacceptable risk to human health or the environment.
UEL	Upper Explosive Limit	The highest concentration (expressed in percent of vapor in the air by volume) of a substance that will burn or explode when an ignition source is present.
UF	Uncertainty Factor	In toxicity assessments, a number that reflects the degree of uncertainty that must be considered when the available data are extrapolated to humans.
UFL	Upper Flammability Limit	The highest concentration (expressed in percent of vapor in the air by volume) of a substance that will burn or explode when an ignition source is present.
UIC	Underground Injection Control	The program under the Safe Drinking Water Act that regulates the use of wells to pump fluids into the ground.
UIC	Unit Identification Code	A six-character, alphanumeric code that uniquely identifies each Active, Reserve, and National Guard unit of the Armed Forces.
ULEV	Ultra-Low Emission Vehicle	The Environmental Protection Agency and California Air Resources Board have developed vehicle emission standards for reducing hydrocarbons, carbon monoxide, and oxides of nitrogen.
UMTRCA	Uranium Tailings Radiation Control Act	A program of assessment and remedial action at inactive mill tailings sites and regulates mill tailings during uranium or thorium ore processing at active mill operations.
USC	United States Code	The codification by subject matter of the general and permanent laws of the United States. It is divided by broad subjects into 50 titles.
USCG	US Coast Guard	A military, multimission, maritime service. Its mission is to protect the public, the environment, and U.S. economic interests in any maritime region as required to support national security.
USCS	Unified Soil Classification System	Classification system based on identifying soils according to their textural and plasticity qualities and on their grouping with respect to behavior.
USDA	US Department of Agriculture	Provides leadership on food, agriculture, natural resources, and related issues based on sound public policy, the best available science, and efficient management.
USEPA	US Environmental Protection Agency	Established in 1970 by Executive Order, bringing together parts of various government agencies involved with control of pollution.
USFS	US Forest Service (of USDA)	An agency of the Department of Agriculture established to manage public lands in national forests and grasslands.
USFWS	US Fish and Wildlife Service (of DOI)	One of the Bureaus of the Department of Interior, its mission is to conserve, protect and enhance fish,

Acronym	Term	Definition
		wildlife, and plants and their habitats for the continuing benefit of America.
USGS	United States Geological Survey	Created by an act of Congress in 1879, is the sole science agency for the Department of the Interior. Provides information to resolve natural resource problems.
USNPS	US National Park Service	One of the Bureaus of the Department of Interior, it is responsible for protecting its national parks and monuments.
UST	Underground Storage Tank	All tanks and attached piping containing regulated substances in which 10% or more of the tank volume (including piping) is beneath the surface of the ground.
UV	Ultraviolet	Pertaining to a band of electromagnetic radiation having wavelengths shorter than violet light.
UV Rays	Ultraviolet Rays	Radiation from the sun that can be useful or potentially harmful. UV rays from one part of the spectrum (UV-A) enhance plant life and are useful in some medical and dental procedures; UV rays from other parts of the spectrum (UV-B) can cause skin cancer or other tissue damage. The ozone layer in the atmosphere partly shields us from ultraviolet rays reaching the earth's surface.
UXO	unexploded ordnance	Unexploded Ordnance or UXO is where a weapon with any type of explosive contained within it or it's shell has not been detonated and is left behind is considered a UXO. These may range from hand gun ammunition to unexploded artillery shells.
UZ	Unsaturated Zone	The portion of the subsurface above the ground water table. It contains, at least some of the time, air as well as water in the pores.

ERB Glossary – U

Acronym	Term	Definition
	ultraviolet chemical oxidation	A water treatment approach in which contaminants are destroyed by combining chemical oxidation with irradiation using ultraviolet rays.
	unconfined aquifer	An aquifer containing water that is not under pressure; the water level in a well is the same as the water table outside the well.
	unconsolidated	Sediment that is loosely arranged or unstratified, or whose particles are not cemented together.
	uncontaminated property	Real property on which no hazardous substances and no petroleum products or their derivatives, including aviation fuel and motor oil, were stored for one year or more, known to have been released, or disposed of.
	Underground Sources of Drinking Water	Aquifers currently being used as a source of drinking water or those capable of supplying a public water system. They have a total dissolved solids content of 10,000 mg/l or less, and are not "Exempted Aquifers." See Exempted Aquifer.

Acronym	Term	Definition
	unresolved complex mixture	The portion of a gas chromatogram that consists of a significant "hump" containing hundreds of compounds that cannot be individually resolved by conventional gas chromatography; typical of weathered petroleum.
	unsaturated (vadose) zone	The zone of geologic material that occurs above the water table and capillary fringe, in which the pores are only partially filled with water (soil moisture is less than porosity), and the fluid pressure is less than atmospheric.
	urban runoff	A mixture of debris in water - dust, dirt, particulate matter, soot, solid wastes - that is transported to rivers or coastal waters and sediments via nonpoint (surface runoff) and point (end-of-pipe) sources.

ERB Acronym and Glossary – V

Acronym	Term	Definition
V	Vanadium	A white, soft, ductile metal. It is used in x-rays, manufacture of alloy metals, and as a catalyst for sulfuric acid and synthetic rubber production. It can be mobile in aquatic conditions depending on the state it is in, which depends on the physical and chemical characteristics of the local environment. Industrial exposure can lead to gastrointestinal distress, cardiac and nervous depression, and kidney damage. The liver, adrenals and bone marrow may also be adversely affected.
v	velocity	A measure of the direction and rate of movement.
VADEQ	Virginia Department of Environmental Quality	Protects and enhances Virginia's environment, and promotes the health and well being of the citizens of the Commonwealth.
VC	Vinyl Chloride	A volatile chemical compound, used in producing some plastics, that is believed to cause cancer. VC is a breakdown product of chlorinated ethenes like tetrachloroethene, trichloroethene, and dichloroethene.
VDWM	Virginia Department of Waste Management	Solid wastes and hazardous wastes in Virginia are regulated by the Department of Environmental Quality, the Virginia Waste Management Board, and the EPA.
VF	Volatilization Factor	A measure of the tendency of a chemical to volatilize from soil to vapor.
VFD	variable frequency drive	Device that allows the speed of a motor to be changed by adjusting the frequency of the alternating current supplied to the motor.
VHWMR	Virginia Hazardous Waste Management Regulations	Regulations that closely follows federal standards established under the Resource Conservation and Recovery Act, but are specific to Virginia.
VI	Vapor Intrusion	The migration of volatile chemicals from the subsurface into overlying buildings.
VOA	Volatile Organic Analytes/Analysis	Often used when speaking about analysis of volatile organics. Viles refer to the 40 ml containers used for aqueous sampling of volatile compounds.
VOC	Volatile Organic Compound	1) Carbon-containing substances released by both natural processes and human activities that readily evaporate; their reaction with nitrogen oxides in the presence of sunlight produces photochemical smog. 2) Compounds amenable to analysis by the purge and trap techniques. Used synonymously with purgable compounds. 3) Any organic compound that participates in atmospheric photochemical reactions except those designated by EPA as having negligible photochemical reactivity.
VP	Vapor Pressure	The pressure exerted by a chemical vapor in equilibrium with its solid or liquid form at a given temperature. It is used to calculate the rate of volatilization of a pure substance from a surface or in estimating a Henry's Law constant for chemicals with low water solubility. The higher the vapor pressure, the more likely a chemical is to volatilize and exist in a gaseous state.
VR	Virginia Regulation	State Regulations for Virginia.

Acronym	Term	Definition
VS	Flow Velocity	A measure of the direction and speed of flow.
VSI	Visual Site Inspection	A part of the RCRA Facility Assessment. A site assessment of all areas of potential contamination on contiguous facility.
VSS	Volatile Suspended Solids	Solids lost on ignition (heating to 500 degrees C). It gives an approximation of the amount of organic material present in the solid fraction of wastewater and industrial wastes.
VSWCB	Virginia State Water Control Board	One of three regulatory boards, composed of Virginia citizens appointed by the Governor, are responsible for adopting Virginia's environmental regulations.
VSWMR	Virginia Solid Waste Management Regulations	Solid wastes and hazardous wastes in Virginia are regulated by the Department of Environmental Quality, the Virginia Waste Management Board, and the EPA.

ERB Glossary – V

Acronym	Term	Definition
	vacuum extraction	A remediation process that involves using advective flow induced by an applied negative pressure to extract contaminated groundwater for subsequent on- or off-site treatment and/or disposal.
	vacuum pump	A unit of mechanical equipment used to increase the pressure in a gas stream and providing a nearly complete vacuum at the suction flange.
	vacuum-enhanced pumping	Use of a vacuum pump to lift groundwater, or other liquids or gases, from a well while producing a reduced pressure in the well.
	vadose zone	The zone of geologic material that occurs above the water table and capillary fringe, in which the pores are only partially filled with water (soil moisture is less than porosity), and the fluid pressure is less than atmospheric. Also unsaturated zone.
	valence	Number of excess or deficient electrons an atom or molecule may have in a certain state. Indicates the charge of an atom.
	validation	See Data Validation.
	vapor	The gaseous phase of substances.
	vapor density	The weight of a pure vapor or gas compared with the weight of an equal volume of dry air at the same temperature and pressure. If the vapor density is less than one, the material is lighter than air and may rise. If the vapor density is greater than one, the material is heavier than air and will stay low to the ground.
	vaporization	Transfer of a chemical substance from the liquid or solid state to the gaseous state.
	variability	Refers to observed difference attributable to heterogeneity or diversity in a population. Sources of variability are the results of natural random processes and stem from environmental differences among the elements of the population. Variability is not usually

Acronym	Term	Definition
		reducible by further measurement but can be better estimated by increased sampling.
	variance	1) Government permission for a delay or exception in the application of a given law, ordinance, or regulation. 2) The sum of the squares of the difference between the individual values of a set of numbers and the arithmetic mean of the set, divided by one less than the number of values.
	vector	A measure that has magnitude and direction, e.g., acceleration of a moving car.
	vegetative controls	Nonpoint source pollution control practices that involve vegetative cover to reduce erosion and minimize loss of pollutants.
	vent well	A well designed to facilitate injection or extraction of air to/from a contaminated soil area.
	ventilation/suction	The act of admitting fresh air into a space in order to replace stale or contaminated air; achieved by blowing air into the space. Similarly, suction represents the admission of fresh air into an interior space by lowering the pressure outside of the space, thereby drawing the contaminated air outward.
	vitrification	The process of immobilizing waste by converting it into a high strength glass or glass-like substance. The process can treat excavated waste or soil in situ. Commonly used to treat radioactive material, and soil contaminated with volatile organics and metals.
	volatile	1) Any substance that evaporates readily. 2) Evaporating readily at normal temperature and pressures.
	volatile liquids	Liquids which easily vaporize or evaporate at room temperature.
	volatile solids	Those solids in water or other liquids that are lost on ignition of the dry solids at 550° C.
	volatility	The measure of a substance's tendency to vaporize at standard temperature and pressure
	volatilization	To evaporate or cause to evaporate. The mass transfer of a solute from a liquid solvent to a gas; in the case of contaminated sediment or water, the mass transfer of contaminants from sediments of water into the atmosphere above the sediments or water body.
	volumetric tank test	One of several tests to determine the physical integrity of a storage tank; the volume of fluid in the tank is measured directly or calculated from product-level changes. A marked drop in volume indicates a leak.

ERB Acronym and Glossary – W

Acronym	Term	Definition
W	data qualifiers - metals analysis - W	Postdigestion spike for Furnace Atomic Absorption analysis is out of control limits (85-115%), while sample absorbance is less than 50% of spike absorbance. * - Duplicate analysis not within control limits. + - Correlation coefficients for the Method of Standard Addition is less than 0.995.
WCSD	Watershed Contaminated Source Document	The Watershed Contaminated Source Document (WCSD) is a 2-10 page summary report that documents the existence of both navy and non-Navy sources whose activities may have or could continue to have an impact on sediments in a water body adjacent to Navy property. The WCSD contains a graphical representation of the water body and identified potential contaminant sources, releases, and transport mechanisms.
WOE	Weight of Evidence	An approach to regulate chemicals that may include hazard and risk assessment, filed studies, and field sample collection.
WQCB	Water Quality Control Board	Along with the State Water Resources Control Board, they are responsible for protecting States's water resources.
WQS	Water Quality Standard	State-adopted and EPA-approved ambient standards for water bodies. The standards prescribe the use of the water body and establish the water quality criteria that must be met to protect designated uses.
WSRA	Wild and Scenic Rivers Act	Selected rivers of the Nation shall be preserved in free-flowing condition, and that they and their immediate environments shall be protected for the benefit of future generations.

ERB Glossary – W

Acronym	Term	Definition
	washrack	Typically consists of a building or concrete pad designed to wash vehicles such as tanks or aircraft, or other equipment.
	waste	1) Unwanted materials left over from a manufacturing process. 2) Refuse from places of human or animal habitation.
	waste characterization	Identification of chemical and microbiological constituents of a waste material.
	waste exchange	Arrangement in which companies exchange their wastes for the benefit of both parties.
	waste minimization	Measures or techniques that reduce the amount of wastes generated during industrial production processes; term is also applied to recycling and other efforts to reduce the amount of waste going into the waste stream.
	waste reduction	Using source reduction, recycling, or composting to prevent or reduce waste generation.

Acronym	Term	Definition
	waste stream	The total flow of solid waste from homes, businesses, institutions, and manufacturing plants that are recycled, burned, or disposed of in landfills, or segments thereof such as the "residential waste stream" or the "recyclable waste stream."
	wastewater	The spent or used water from a home, community, farm, or industry that contains dissolved or suspended matter.
	water pollution	The presence in water of enough harmful or objectionable material to damage the water's quality.
	water quality criteria	Levels of water quality expected to render a body of water suitable for its designated use. Criteria are based on specific levels of pollutants that would make the water harmful if used for drinking, swimming, farming, fish production, or industrial processes.
	water solubility	The maximum possible concentration of a chemical compound dissolved in water. If a substance is water soluble it can very readily disperse through the environment.
	water storage pond	An impound for liquid wastes designed to accomplish some degree of biochemical treatment.
	water table	The surface on which the fluid pressure in the pores of a porous medium is exactly atmospheric. Generally the boundary between the saturated and unsaturated zones, not including the capillary fringe.
	water table aquifer	An aquifer which is not confined above, and in which the water level in a well indicates the water table.
	water treatment lagoon	An impound for liquid wastes designed to accomplish some degree of biochemical treatment.
	water well	An excavation where the intended use is for location, acquisition, development, or artificial recharge of groundwater (excluding sandpoint wells).
	Waterloo Profiler®	Direct push tool that collects depth-discrete groundwater samples at multiple vertical locations within a single hole with one probe entry.
	watershed	The land area that drains into a stream; the watershed for a major river may encompass a number of smaller watersheds that ultimately combine at a common delivery point.
	weathering	A process by which the physical or chemical properties of a material are altered upon its release into the environment due to physical, chemical, or biological forces.
	weir	1) A wall or plate placed in an open channel to measure or regulate the flow of water. 2) A wall or obstruction used to control flow from settling tanks and clarifiers to assure a uniform flow rate and avoid short-circuiting.
	well	A bored, drilled, or driven shaft, or a dug hole whose depth is greater than the largest surface dimension and whose purpose is to reach underground water supplies or oil, or to store or bury fluids below ground.
	well field	Area containing one or more wells that produce usable amounts of water (or oil).
	well injection	The subsurface emplacement of fluids into a well.

Acronym	Term	Definition
	well interference	The situation when the pumping of one well causes drawdown in another well so that the second well has difficulty in pumping water for some time period.
	well monitoring	Measurement, by on-site instruments or laboratory methods, of the quality of water in a well.
	well plug	A watertight and gastight seal installed in a bore hole or well to prevent movement of fluids.
	wellhead protection area	A protected surface and subsurface zone surrounding a well or wellfield supplying a public water system to keep contaminants from reaching the well water.
	wetland	Lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water, and having vegetation typically adapted for life in saturated soil conditions. For the purposes of this classification, wetlands must have one or more of the following attributes at least periodically: 1) the land supports predominantly hydrophytes; 2) the substrate is predominantly undrained hydric soil; 3) or the substrate is nonsoil and saturated with water or covered by shallow water at some time during the growing season each year. Examples are swamps, bogs, fens, marshes, and estuaries.
	wettability	The ability of a given fluid to preferentially adhere to subsurface minerals.
	wildlife refuge	An area designated for the protection of wild animals, within which hunting and fishing are either prohibited or strictly controlled.
	wood treatment facility	An industrial facility that treats lumber and other wood products for outdoor use. The process employs chromated copper arsenate, pentachlorophenol, and/or creosote, all of which are regulated as a hazardous material.

ERB Acronym and Glossary – X

Acronym	Term	Definition
X	data qualifiers - organic analysis - X	Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached. If more than one is required, Y and Z are used as needed. If more than five qualifiers are required for a sample result, the X flag can combine several flags. For instance, the X flag may combine the A, B, and D flags for some samples.

ERB Glossary – X

Acronym	Term	Definition
	xenobiote	1) Any biotum displaced from its normal habitat. 2) A chemical foreign to a biological system.

ERB Acronym and Glossary – Y

Acronym	Term	Definition
	yard waste	The part of solid waste composed of grass clippings, leaves, twigs, branches, and garden refuse.
	yield	The quantity of water (expressed as a rate of flows or total quantity per year) that can be collected for a given use from surface or groundwater sources.

ERB Acronym and Glossary – Z

Acronym	Term	Definition
Zn	Zinc	A metal that is found naturally in air, soil, water and foods. It is used in brass alloys, bronze, die-casting alloys, galvanizing iron, fungicides, smoke bombs, pharmaceuticals, pennies, and as a protective coating for other metals. Zinc in water can be dissolved or undissolved, depending on the chemical and physical properties of the local environment. The dominant fate of zinc is adsorption to sediments. Zinc in soil is most likely to be strongly absorbed, depending on conditions. Transfer to groundwater from soil is not a dominant process. The soluble forms of zinc are the most toxic forms to aquatic biota. Zinc is an essential nutrient for humans, however, excessive amounts can be harmful. Zinc can reduce "good cholesterol", as well as lead to various gastrointestinal disorders.
ZVI	zero-valent iron	Metallic iron, independent of particle size, containing its full complement of electrons. Used to degrade chlorinated solvents, polychlorinated biphenyls and other groundwater through reductive dehalogenation.

ERB Glossary – Z

Acronym	Term	Definition
	zero order reaction	A chemical reaction in which an increase (or decrease) in reactant concentration results in no change in the rate of reaction (as long as some reactant is present).
	zone of aeration (unsaturated)	The zone in which the open spaces in soil or in a rock formation contain air and water. The comparatively dry soil or rock located between the ground surface and the top of the water table.
	zone of saturation	The area below the water table where all open spaces are filled with water.
	zooplankton	Tiny aquatic animals eaten by fish.