



South Stream Offshore Pipeline – Russian Sector

**Environmental and Social Impact
Assessment (ESIA)**

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This report has been prepared by URS Infrastructure & Environment UK Limited on behalf of South Stream Transport B.V.

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Glossary

Aarhus Convention

An international legal agreement that promotes access to information, public participation in decision making and access to justice in environmental matters.

Abyssal Plain

The deep, flat sea floor that lies between continental margins i.e. the continental shelves and slopes (and other significant features such as mid-ocean ridges and deep ocean trenches).

Acceptance or Approval

The instruments of "acceptance" or "approval" of a treaty have the same legal effect as ratification and consequently express the consent of a state to be bound by a treaty.¹

Accession

"Accession" is the act whereby a state accepts the offer or the opportunity to become a party to a treaty already negotiated and signed by other states. It has the same legal effect as ratification. Accession usually occurs after the treaty has entered into force.

Acoustic Reflectivity

Sound energy (via sonar) reflected from a surface. The relative reflectivity of a specific material, that is, the tendency to deflect sound energy in a specific medium rather than absorb it.

Acoustic Target

Potential man-made features and localised obstructions present on the sea floor, identified from analysis of acoustic data

¹ http://treaties.un.org/Pages/Overview.aspx?path=overview/glossary/page1_en.xml

files, defined according to their spatial extent, configuration, location and environmental context.

Affected Party/Parties

A country involved in a transnational linear project whose territory may be significantly adversely affected by the activity in a Party of Origin. See Party of Origin below.

Aleurite

Silt

Algae

Algae are photosynthetic organisms that occur in the sea, in freshwater and moist habitats on land. They vary from small, single-celled forms (e.g. phytoplankton) to complex multicellular forms (seaweeds).

Alien Species / Invasive Species

A species not native to the environment it inhabits.

Alluvial

Soils carried by water and deposited according to size and specific gravity as the flow rate decreases.

Ambient Air Quality Limits

Ambient air quality limits are concentrations or air quality indicators recorded over a given time period, which are considered to be acceptable in terms of what is scientifically known about their effects on health and on the environment. They can be used as a benchmark to indicate whether air quality is being degraded.

Ambient Levels

Sharing the same physical and/or chemical properties as the immediate surroundings.

Anadromous

Fish that migrate up rivers from the sea to breed in fresh water.

Anaerobic

Relating to the absence of free oxygen.

Anionic Surfactant

Chemicals that act as a surface agent to reduce the surface tension of liquids. Commonly used in synthetic detergents but also used in industrial processes such as plastic and paint manufacture.

Annulus

The area between a pair of concentric circles. For the purposes of this document, annulus refers to the space between the microtunnel lining and the pipeline.

Anoxic

Absence of oxygen.

Anthropogenic

Relating to, or resulting from, the influence of human activity on the environment.

Archaeology

The scientific study of the physical evidence of past human societies recovered through collection, artefact analysis, and excavation. Archaeologists not only attempt to discover and describe past cultures but also to formulate explanations for the development of cultures. Conclusions drawn from study and analyses provide answers and predictions about human behaviour that add, complement, and sometimes correct the written accounts of history and prehistory.

Archaeological Context

The physical setting, location, and cultural association of artefacts and features within an archaeological site.

Archaeological Excavation

A programme of controlled, intrusive fieldwork with defined research objectives which examines and records archaeological deposits, features and structures and, as appropriate, retrieves artefacts, environmental evidence and other remains within a specified area or site (on land or underwater). The records made and objects gathered during fieldwork are studied and the results of that study published in detail appropriate to the project design and the significance of the results.

Archaeological Sites

Locations with physical evidence for where people once lived, hunted, farmed, camped, held ceremonies or were buried.

Artefact

An object or part of an object that has been used or created by a human and provides physical clues to the activity carried out by humans in the area of discovery. These include worked stone tools and tool-making waste, bone, pottery and metalwork.

Artisanal Fishery

A fishery involving fishing households (as opposed to commercial companies), using relatively small amount of capital and energy, relatively small fishing vessels (if any), making short fishing trips, close to shore, with the catch being sold, bartered to traded mainly for local consumption (including that of the fishing households).

ART Municipal District

The entire municipal district area known as Anapa Resort Town (ART) including the

town of Anapa (urban district) and 11 other rural districts including Supsekh Rural District and Gai Kodzor Rural District.

Assemblage

A group of artefacts related to each other based upon their recovery from a common archaeological context.

Associated Facility

Defined by IFC PS 1 as: "facilities that are not funded as part of the project and that would not have been constructed or expanded if the project did not exist and without which the project would not be viable".

Atmospheric Dispersion Model

A computer model used to assess air quality impacts. The model uses local meteorological data to enable a realistic assessment of dispersion from the emission sources for weather conditions that are applicable to the site.

Autonomous Underwater Vehicle (AUV)

A robot which travels underwater without requiring input from an operator. AUVs constitute part of a larger group of undersea systems known as unmanned underwater vehicles.

Authigenic Mineral

A mineral that was generated where it was found or observed – i.e formed in situ.

Automatic monitoring station

A type of monitoring equipment that continuously measures air quality parameters. Air is pumped into a series of analysers and the air quality parameter concentrations are recorded. The data are stored by a data logger and accessed remotely by a computer and modem.

Average Permissible Concentration

The annual average quantity/unit of volume of an air quality indicator that is not considered an undue risk to human health and the environment, in accordance with national legislation in the Russian Federation.

Backfill

Material used to refill an excavated area.

Bacterioplankton

The bacterial component of the plankton.

Bar

Metric unit of atmospheric pressure.

Base Case Design

The base case design is the default Project design, and is reached following the consideration of alternative designs in relation to technical, environmental and socio-economic factors.

Baseflow

Contribution of groundwater flow to surface water flow.

Baseline

Term used to describe existing conditions of the physical, biological, socio-economic, and cultural heritage environmental aspects. The ESIA processes assesses likely impacts on baseline conditions.

Baseline Data

Data gathered during the Environmental and Social Impact Assessment and used to describe the relevant existing conditions (see 'Baseline').

Benthic

Of or relating to the bottom of a sea, lake, or other body of water.

Benthic Sediments

Sediment found at the bottom of a water column.

Benthopelagic

Living and feeding near the bottom as well as in mid-water or near the surface. Feeding on benthic as well as free swimming organisms.

Benthos

Flora and fauna organisms that live on/in sediment at the bottom of a water column.

Bentonite

A natural, inert, non-toxic clay used as a filler, sealing or suspending agent.

Benzene

Benzene is an organic chemical compound with the molecular formula C_6H_6 . It is a colourless, flammable, sweet-smelling liquid which is a natural constituent of crude oil (diesel and petrol).

Biodiversity

A term used to describe aspects of biological diversity, especially including species richness, ecosystem complexity and genetic variation.

Biological Communities

An ecological unit composed of various populations of different organisms found living together in a particular environment.

Biomass

The total mass of living matter present in an ecosystem or at a particular trophic level in a food chain and usually expressed as dry weight or more accurately, as the carbon, nitrogen, or calorific content per unit area.

Biota

The plant and animal life occupying a place together.

Biotope

An area that is uniform in environmental conditions and in its distribution of animal and plant life.

Bivalve

A marine or freshwater mollusc having a laterally compressed body and a shell consisting of two hinged valves.

Block Valve

A valve installed at various strategic locations along a pipeline to enable a segment of the pipeline to be isolated for maintenance work or in case of a rupture or leak.

Blue Stream Pipeline

A pipeline crossing the Black Sea and carrying natural gas from Russia to Turkey. The pipeline runs from the Beregovaya Compressor Station at Arkhipo-Osipovka on the Black Sea Coast of Russia to the Durusu Terminal near Samsun in Turkey.

Bronze Age

The prehistoric period following the Stone Age and preceding the iron Age characterized by the use of weapons and implements made of bronze and by intense trading activity. It is generally dated from around 3000 BC.

Byzantine

Of or relating to the Byzantine Empire that ended in 1453, the empire in southeastern Europe and Asia Minor formed from the eastern part of the Roman Empire.

Calcareous Argillites

Calcareous Argillites are a fine grained sedimentary rock that is composed of predominantly clay sized particles (and variable amounts of silt sized particles) containing a high proportion of calcium carbonate typically deposited in shallow water near land as muds and oozes, and then lithified (compacted and cemented) to form a well-formed and relatively hard type of mudstone.

Calcareous Marls

Calcareous Marls are a fine grained sedimentary rock that is composed of variable amounts of clay and silt particles and contains a high proportion of calcium carbonate or lime-rich mud. The marl is softer and contains a higher proportion of carbonate material than a Calcareous Argillite.

Cancun Agreement

The agreements, reached on December 11 in Cancun, Mexico, at the 2010 United Nations Climate Change Conference represent key steps forward in capturing plans to reduce greenhouse gas emissions and to help developing nations protect themselves from climate impacts and build their own sustainable futures.

Carbon monoxide (CO)

Carbon monoxide is a colourless, odourless, and tasteless gas that is slightly lighter than air. It is toxic to humans and animals when encountered in higher concentrations.

Carcinogenic

An agent directly involved in causing cancer.

Cathodic Protection System

A method of neutralising the corrosive static electric charges in a submerged steel structure.

Cetacea

Whales, dolphins and porpoises.

Chance Find

An archaeological site or object that was unknown prior to discovery during construction (despite best efforts to identify all sites prior to construction through cultural heritage surveys).

Chance Find Procedure

Chance find procedure is a project-specific procedure that outlines what will happen if previously unknown physical resources are encountered during project construction or operation. The procedure includes record keeping and expert verification procedures, chain of custody instructions for movable finds, and clear criteria for potential temporary work stoppages that could be required for rapid disposition of issues related to the finds.

Chora

Agricultural hinterland of a Greek city (Greek: χώρα).

Coccolithophore

Planktonic flagellate algae with a layer of minute calcareous plates that can form algal blooms colouring the seawater white.

Colluvial

Soils deposited at the base of hill slopes or cliffs through the action of gravity.

Commissioning

Process by which equipment is tested to verify if it functions according to its design objectives or specifications.

Comment Form

A paper form through which stakeholders can submit written comments, views and opinions. Comment forms are distributed

at public consultation meetings and made available in locations where ESIA documentation is disclosed and made available for comments.

Compression

The raising of pressure within a substance.

Compressor Station

To ensure that the natural gas flowing through a pipeline remains pressurised, its compression is required periodically along the pipeline. This is accomplished by compressor stations. Compressor stations increase or raise the pressure of the natural gas using gas compression facilities and equipment.

Conservation

The measures taken to extend the life of cultural heritage in ways that will best sustain its significance and heritage values (ICCROM 1998).

Consultation

The process of formally consulting or discussing a subject. For the purposes of this document, consultation involves two-way communication between the project developers and affected or interested stakeholders.

Contamination

The introduction by man, directly or indirectly, of chemicals to the environment resulting in adverse impacts.

Contiguous Zone

A band of water extending from the outer edge of the territorial waters (which are usually 12 NM from the coast) up to 24 NM from the coast, within which a state can exert limited control for the purpose of preventing or punishing infringements of its customs, fiscal, immigration or sanitary laws and regulations.

Construction and Pre-commissioning Phases

2013 to end of 2018 – this phase will involve construction activities including an operational ramp-up period from late 2015 to late 2018.

Construction Corridor

During construction phase, corridor which encompasses all four pipelines.

Continental Shelf

A shallow submarine plain of varying width forming a border to a continent and typically ending in a comparatively steep slope to the deep ocean floor.

Continental Slope

The comparatively steep slope from a continental shelf to the ocean floor.

Copepod

Any of a large subclass (Copepoda) of usually minute freshwater and marine crustaceans.

Corrosion

The eating away of metal by chemical or electrochemical action.

Corrosion inhibitors

Chemicals that reduce the rate of corrosion on metal.

Cnidarian

Radially symmetrical animals having sac-like bodies with only one opening and tentacles with stinging structures. They occur in polyp and medusa forms and include anemones, corals, hydroids and jellyfish.

Critical Cultural Heritage

Critical cultural heritage consists of one or both of the following types of cultural

heritage: (i) the internationally recognised heritage of communities who use, or have used within living memory the cultural heritage for long-standing cultural purposes; or (ii) legally protected cultural heritage areas, including those proposed by host governments for such designation (IFC 2012 Performance Standard 8, para 13). To be considered critical, the cultural heritage must be internationally recognised prior to the proposal of the project (IFC 2012, Guidance Note 8, paragraph GN24).

Ctenophore

Any of a phylum (Ctenophora) of marine animals superficially resembling jellyfishes but having biradial symmetry and swimming by means of eight bands of transverse ciliated plates —called also comb jelly.

Cultural Heritage

The heritage that includes artefacts, monuments, groups of buildings and sites that have a diversity of values including symbolic, historic, artistic, aesthetic, ethnological or anthropological, religious, scientific and social significance (UNESCO 1972).

IFC Performance Standard 8: Cultural Heritage defines Cultural Heritage as '(i) tangible forms of cultural heritage, such as tangible moveable or immovable objects, property, sites, structures, or groups of structures, having archaeological (prehistoric), paleontological, historical, cultural, artistic, and religious values; (ii) unique natural features or tangible objects that embody cultural values, such as sacred groves, rocks, lakes, and waterfalls; and (iii) certain instances of intangible forms of culture that are proposed to be used for commercial purposes, such as cultural knowledge, innovations, and practices of communities embodying traditional

lifestyles' (IFC 2012, Performance Standard 8, paragraph 3).

Cultural Landscape

Landscapes which represent combined works of nature and by humans, and they express a long and intimate relationship between people and their natural environment (UNESCO 2007).

Cultural Resources

Movable or immovable cultural heritage objects, sites, structures, groups of structures, and natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, spiritual, aesthetic, or other cultural significance. Physical cultural resources may be located in urban or rural settings, and may be above or below ground, or under water. Their cultural interest may be at the local, provincial or national level, or within the international community.

Culturally Appropriate

An engagement process that identifies a practical and appropriate approach for sharing information and comments / views / opinions that is compatible with local cultural norms and behaviour.

Cumulative Impact

The combination of multiple impacts from existing projects, the proposed project, and/or anticipated future projects that may result in significant adverse and/or beneficial impacts that would not be expected in case of a stand-alone project.

Cuttings

Fragments of rock and other material displaced during the drilling or boring process.

Decommissioning Phase

Planned shut-down of a building, equipment, plant, etc., from operation or usage. Commencing 2065.

Demersal

Demersal fish live and feed on or near the seabed. They can be contrasted with pelagic fish.

Demography

The statistical study of the characteristics of human populations.

Design Control

The prevention or minimisation of adverse impacts through the use of good practice design controls. Design controls are often defined prior to the detailed consideration of potential impacts and mitigation measures within the ESIA process.

Dewatering

The process of dewatering is to remove the test water from the pipeline, after hydrotesting. This is usually carried out using dewatering PIGs.

Dewatering and Pre-commissioning Spread

The space and equipment needed for the dewatering and pre-commissioning activities.

Diatoms

Planktonic algae possessing a siliceous cell called a frustule. Globally, diatoms are the most abundant group within the phytoplankton.

Diffusion Tube Monitoring

A type of air quality monitoring equipment that passively absorbs air quality indicators over a given time (i.e., does not pump air

over the sample medium). It provides an average concentration for the period of measurement.

Dinoflagellates

A group of single celled organisms possessing a flagellum (whip like locomotory structure). Many are photosynthetic organisms and form a major component of marine phytoplankton.

Direct Impacts

Direct impacts result from a direct interaction between a project activity and the receiving environment (e.g. between a project activity that results in permanent or temporary land take or use and the owner and users of that land).

Disadvantaged and/or Vulnerable Individuals and Groups

Individuals or groups within the project area of influence who could experience adverse impacts from the proposed project more severely than others based on their vulnerable or disadvantaged status. This status may stem from an individual's or group's race, colour, sex, language, religion, political, or other opinion, national or social origin, property, birth or other status. In addition other factors should be considered such as gender, ethnicity, culture, sickness, physical or mental disability, poverty or economic disadvantage, and dependence on unique natural resources. [2]

Disclosure

Release of information into the public domain. For the purposes of this document, disclosure refers to the release of the project and EIA/ESIA information to affected and interested stakeholders.

² Definition as per the IFC Policy & Performance Standards and Guidance Notes. Glossary of Terms. Available from www.IFC.org

Diurnal Vertical Migration

Pattern of vertical migration occurring on a daily basis, such as in some copepods and fish.

Draft nets

Single wall of netting attached to a floating head rope and a weighted ground rope, designed so that a bag is formed into which the catch is drafted or hauled. Normally used in rivers or river estuaries.

Dredging

Process of excavating materials (seabed sediments or rock) underwater.

Dry Natural Gas

Natural gas is called 'dry' when it has had most hydrocarbons removed and is therefore almost pure methane. It is also known as 'consumer grade' natural gas.

Dust

'Dust' is generally regarded as particulate matter less than 75 µm.

Ecosystem

A biological community of interacting organisms and their physical environment.

Ecosystem Service

The benefits people obtain from ecosystems. Following the lead of the Millennium Ecosystem Assessment, ecosystem services are typically classified along functional lines into four broad categories:

- i. Provisioning services: the products people obtain from ecosystems such as food and fibre, fuel in the form of peat, wood or non-woody biomass, or water from rivers, lakes and aquifers. Goods may be provided by heavily managed

ecosystems, such as agricultural and aquacultural systems and plantation forests, or by natural or semi-natural ones, for example in the form of capture fisheries or the harvest of other wild foods;

- ii. Regulating services: the benefits people obtain from the regulation of ecosystem processes including, for example, the regulation of climate, hazards, noise, water, soil and air quality, and pollination;
- iii. Cultural services: the cultural, spiritual, and educational benefits people obtain from ecosystems through, for example, recreation and tourism, spiritual or religious upliftment, or cultural heritage; and

Supporting services: the natural processes that maintain the other services such as soil formation, nutrient and water cycling, or primary production.

Ecotones

A transitional area of vegetation between two different plant communities, such as forest and grassland. It has some of the characteristics of each bordering plant community.

Electromagnetism

Refers to the interactions between electrically charged particles and magnetic force fields. Weak electromagnetic fields are present naturally. The operation of electrical equipment generates locally stronger electromagnetic fields.

Eluvial

Soils formed by in-situ weathering processes (i.e. wind).

Emergency Preparedness and Response Plan

The Emergency Preparedness and Response Plan defines how South Stream Transport plans, prepares and manages incidents and emergencies.

Emergency Response Plan

Emergency Response Plans are required for each high risk emergency incident/ scenario as identified by the Emergency Risk Analysis. Contractors who will be doing the work will be responsible for preparing Emergency Response Plans for their work activities, and specifically those events identified by the Emergency Threat Analysis.

Emergency Shut Down Valve

A valve designed to stop the flow of gas in the pipeline upon the detection of a dangerous event. This provides protection against possible harm to people, equipment or the environment.

Emergency Threat Analysis

Emergency Threat Analysis determines the risks posed by potential emergencies and the need for specific Emergency Response Plans and related procedures as a contingency for emergency events.

Engagement

A process that involves consultation and/or disclosure.

Environmental/Social Aspect

An element of an organisation or project's activities, products or services that can interact with the environment or a social receptor that affects or can affect the environment.

Environmental/Social Impact

Any change to the environment or social status, whether adverse or beneficial, wholly or partially resulting from an

organisation's activities, products or services.

Environmental and Social

For the purposes of this ESIA, the term "Environmental and Social" refer to all environmental, socio-economic and cultural heritage factors of the Project.

Environmental and Social Impact Assessment (ESIA) / Environmental Impact Assessment (EIA)

Systematic review of the environmental or socio-economic changes a proposed project may have on its surrounding environment.

Environmental and Social Management System

A system established to plan, manage, document and monitor an organisation's activities and processes and resultant environmental and social impacts in accordance with requirements of ISO 14001:2004 and IFC Performance Standard 1.

Equator Principles

The Equator Principles (EPs) are a credit risk management framework for determining, assessing and managing environmental and social risk in project finance transactions. The EPs are designed to help financial institutions overcome the challenges of incorporating risks associated with biodiversity and ecosystem services into their lending decisions. [3]

Epiphytes

A plant that grows on another plant but is not parasitic, such as diatoms growing on seaweed.

3 Definition as per the EP website available from www.equator-principles.com

Espoo Convention

The Espoo (EIA) Convention sets out the obligations of Parties to assess the environmental impact of certain activities at an early stage of planning. It also lays down the general obligation of States to notify and consult each other on all major projects under consideration that are likely to have a significant adverse environmental impact across boundaries. The Convention was adopted in 1991 and entered into force on 10 September 1997. [4]

Eurostat

Detailed statistical website on the EU.

Eutrophication

Excessive nutrient enrichment of a body of water, often leading to detrimental ecological changes.

Exclusive Economic Zone

An exclusive economic zone (EEZ) is a seazone for which a state has special rights over the exploration and use of marine resources, including production of energy from water and wind. It stretches from the seaward edge of the state's territorial sea out to 200 nautical miles from its coast (or to a neighbouring EEZ).

Fault

A planar fracture or discontinuity in a volume of rock, across which there has been significant displacement of one side with respect to the other. Rapid movement of faults causes earthquakes.

Fauna

The animals of a particular region, habitat, or geological period.

Feasibility Study

4 Definition as per the UNECE website available from <http://www.unece.org/env/eia/eia.html>

An analysis and evaluation of a proposed project to determine if it is technically feasible, is feasible within the estimated cost, and will be profitable.

Fixed Gillnets

Either stretched between two or more stakes driven into the bottom within the tidal area along the coast to target coastal species or be weighted to the seabed with weights attached to the ground line (footrope) supported by floats on the upper line (headrope). Can be used to catch demersal or pelagic fish.

Flora

The plants of a particular region, habitat, or geological period.

Fluvial

Soils formed by rivers and streams.

Flysch

Sedimentary rocks formed in deep water marine conditions.

Footprint

The spatial impact/ impression on the seabed or land from a project.

Foreign Direct Investment

Foreign Direct Investment (FDI) is the direct investment into production or business in a country by a company located or based in another country.

Fossil Fuels

Hydrocarbon fuels found naturally within the top layer of the Earth's crust following decomposition of buried dead organisms such as plants and animals over a period of millions of years.

Front End Engineering Design (FEED)

Engineering that is conducted after completion of Feasibility Study (also known as Conceptual Design).

Frame-first Construction

A term used to describe the procedure in which hulls were constructed by first erecting frames and then attaching the outer skin of planking to them.

Frequency

A measure of the cycles per second in sound pressure fluctuations or vibration in Hertz (Hz). Humans can typically hear sound in the range of approximately 20 Hz to 20 kHz.

Fugitive Source Emissions

Fugitive emissions are non-combustion related emissions, such as gas leaks from pressurised equipment.

Gamma Radiation

Electromagnetic radiation of short wavelength. Gamma radiation is present naturally due to solar and geological processes. Anthropogenic activities may cause increased gamma radiation.

Gastropod

A class of molluscs comprising slugs and snails, typically having a flattened muscular foot with a head bearing stalked eyes.

Gauging

Gauging is undertaken to detect geometric anomalies in pipelines such as obstructions, dents and ovalities (out-of-roundness) that may have occurred during construction activities. This requires passage of a gauging tool (typically an aluminium gauge plate) which is attached to a PIG and passed through the pipeline.

G-20

The G20 is a forum for international cooperation on the most important issues of the global economic and financial agenda. It brings together finance ministers and central bank governors from 19 countries: Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, the Republic of Korea, Mexico, Russia, Saudi Arabia, South Africa, Turkey, the United Kingdom, the United States of America plus the European Union, which is represented by the President of the European Council and by Head of the European Central Bank.

Geohazard

Geological or geomorphological situation that represents, or has the potential to develop further into, a situation leading to damage or uncontrolled risk. It includes landslides, seismic faults and volcanic activities, among other situations.

Geomorphology

Refers to the study of the evolution and configuration of landforms and the processes which shape them.

Global Warming

Global warming is an average increase in the temperature of the atmosphere near the Earth's surface and in the troposphere, which can contribute to changes in global climate patterns.

Good International Industry Practice (GIIP)

Good International Industry Practice is the exercise of professional skill, diligence, prudence and foresight that would reasonably be expected from skilled and experienced professionals engaged in the

same type of undertaking under the same or similar circumstances globally.[5]

Greenhouse Gases (GHG)

Atmospheric gases considered to contribute to the greenhouse effect by absorbing and emitting radiation, They include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (NO₂), and water vapour.

Grievance

Formal complaint by individuals, groups or organisations who feel they have been adversely affected by project-related activities.

Grievance Mechanism (or Grievance Procedure)

Process of recording and addressing grievances so that they can be tracked through to a resolution.

Gross Domestic Product

The monetary value of all the finished goods and services produced within a country's borders over a certain period of time, usually calculated on an annual basis.

Gross Value Added

The value of goods and services produced by an area, sector or producer minus the cost of the raw materials and other inputs used to produce them. Unlike GDP, GVA does not include taxes or subsidies on the goods and services. GVA is useful for comparing performance across different areas as it is often difficult to allocate taxes and subsidies sub-nationally.

Groundwater

Water within rock pore space below the water table.

Grout

A material that is used for filling voids and sealing joints.

Habitat

The natural home or environment of an animal, plant, or other organism.

Halocline

A vertical gradient in ocean salinity.

Harmful Substances

Harmful substances are natural or man made substances that adversely effect the functioning capability of organisms. In relation to the Convention on the Protection of the Black Sea against pollution, harmful substances are those substances that are identified as marine pollutants in the International Maritime Dangerous Goods (IMDG) Code.

Hazard

The potential to cause harm, including ill health or injury; damage to property, plant, products or the environment; production losses or increased liabilities.

Hazardous Substance

Natural or man-made chemicals that adversely affect human health or ecological functions.

Hellenistic

Relating to postclassical Greek history and culture.

Herpetofauna

Term referring to both reptiles and amphibians.

Holoplankton

Holoplankton are organisms that are planktonic for their entire life cycle.

⁵ Definition as per the IFC Policy & Performance Standards and Guidance Notes. Glossary of Terms. Available from www.IFC.org

Examples of holoplankton include diatoms, radiolarians, dinoflagellates, foraminifera, amphipods, krill, copepods, and salps.

Hominin

The group consisting of modern humans, extinct human species and all our immediate ancestors (including members of the genera *Homo* (e.g. *Homo neanderthalensis*, *Homo erectus*, *Homo habilis*), and various species of *Australopithecus*, *Paranthropus* and *Ardipithecus*).

Hydrocarbon

Organic chemical compounds of hydrogen and carbon atoms that form the basis of all petroleum products. They may exist as gases, liquids or solids, examples being methane, hexane and paraffin.

Hydrogen carbonate (HCO₃⁻)

This is the bicarbonate ion, also referred to as the hydrogen carbonate ion.

Hydraulic Conductivity

A coefficient that relates the discharge through an aquifer to the hydraulic head gradient.

Hydrotesting

Process of checking the integrity of a pipeline by filling it with water under pressure and testing for any loss of pressure (e.g. from leaks).

Hydroid/ Hydrozoa

Class of the phylum Cnidaria, usually with small and plant-like colonies of polyps and small jellyfish generative stages. Colonies are attached to solid forms such as rocks, shells or plants. There are also some planktonic forms such as the floating colony of polyps known as the Portuguese men-of-war.

Ichthyoplankton

Term used to describe the fish egg and fish larvae component of the plankton.

Impressed Current System

Impressed current cathodic protection (ICCP) systems are installed to prevent corrosion of underground metal pipeline systems. Corrosion of underground metal pipelines is a normal, natural process that is the result of an electrochemical reaction in which current flows from areas where corrosion is occurring (anodic areas) to areas where it is not (cathodic areas). A cathodic protection system reverses the process. With an impressed current system, current is discharged from special anodes placed in the same electrolyte (soil) in which the pipelines to be protected are buried.

Indirect Impacts

Indirect impacts result from other activities that happen as a consequence of the project (e.g. project implementation promotes service industries in the region).

Intangible Cultural Heritage

The Convention for the Safeguarding of the Intangible Cultural Heritage defines the intangible cultural heritage as the practices, representations, expressions, as well as the knowledge and skills (including instruments, objects, artefacts, cultural spaces), that communities, groups and, in some cases, individuals recognise as part of their cultural heritage. It is sometimes called living cultural heritage, and is manifested inter alia in the following domains:

- Oral traditions and expressions, including language as a vehicle of the intangible cultural heritage;
- Performing arts;

- Social practices, rituals and festive events;
- Knowledge and practices concerning nature and the universe; and
- Traditional craftsmanship.

Interfluve

The region of higher land between two rivers that are in the same drainage system.

International Finance Corporation (IFC)

Organisation that is a member of the World Bank, and promotes sustainable private sector investment in developing countries. [6]

International Finance Corporation Performance Standards

The Performance Standards provide guidance on how to identify environmental and social risks and impacts, and are designed to help avoid, mitigate, and manage risks and impacts as a way of doing business in a sustainable way. There are eight Performance Standards that clients must meet throughout the life of an investment by IFC. [6]

International Union for Conservation of Nature (IUCN) Red List

The IUCN Red List of Threatened Species provides taxonomic, conservation status and distribution information on plants and animals that have been globally evaluated using the IUCN Red List Categories and Criteria. This system is designed to determine the relative risk of extinction, and the main purpose of the IUCN Red List is to catalogue and highlight those plants and animals that are facing a higher risk of global extinction (those listed as Critically

Endangered, Endangered and Vulnerable). The Red List website is <http://www.iucnredlist.org>

Invertebrates

Any animal lacking a backbone, including all species not classified as vertebrates, such as an arthropod, mollusc, annelid, coelenterate, etc.

Juniper woodland/scrub

A relatively heterogeneous woodland community, dominated in the tree layer by juniper species, as well as pubescent oak and oriental hornbeam.

Kavkaz Winery

ZAO Agrifirm Caucasus.

Keystone species

A species that exerts a large, stabilizing influence throughout an ecological community, despite its relatively small numerical abundance.

Known Development

The Russkaya CS, the Clearing in the Woods "Lesnaya Polyana" development, the Residence of Utrish development and the Zapovedny (Reserved) development.

Krai

An administrative area or region within the Russian Federation.

Kurgan

Mound of earth and stones raised over a grave or graves in Eastern Europe and Central Asia (Russian: Кургan).

Landfall

The point at which the pipeline comes ashore from the sea.

⁶ Definition as per the IFC website. Taken from www.IFC.org

Landfall Facility

The point at which an offshore pipeline reaches the mainland.

Landfall Section

Approximately 3.9 km of onshore pipelines, 2.5 km of which will be buried and 1.4 km of which will be housed in microtunnels. The exit point of the microtunnels will be approximately 400 m from the shoreline at a depth of 23 m. The permanent onshore landfall facilities (approximately 142 m wide) are also included within the landfall section.

Landscape

An area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors (Council of Europe, 2000).

Landscape Impact

Impact on the landscape as a resource in its own right.

Larva

Juvenile form of an animal, differing in shape and appearance from the adult. Larvae undergo metamorphosis before reaching the adult form. Larvae can form an important component of the plankton in marine systems.

Laydown Area

Areas used for storing construction materials and equipment.

Leachable

To remove soluble or other constituents from soil or waste by the action of a percolating liquid.

Likelihood

The probability that an activity or effect will occur.

Line sources

An emission source that has a linear (one-dimensional) geometry. The most prominent linear sources are road traffic and aircraft air emissions.

Littoral

Zone between the low and high water marks.

Local Community/ies

Communities that have the potential to be affected by the Project. For the purposes of this socio-economic assessment, certain communities (Gai Kodzor, Rassvet, Varvarovka, Sukko and Supsekh) are referred to as 'Local Communities'. These communities were identified as potentially Project-Affected Communities (PACs) in the Scoping Report, together with the town of Anapa but which is not identified as a Local Community in this chapter.

Macroalgae

Large algae including seaweeds.

Macrophyte

A plant large enough to be seen by the naked eye. Includes both seaweeds and marine angiosperms such as sea grass.

Magnetometer

A survey instrument that measures fluctuations in the earth's magnetic fields for the purpose of detecting ferrous material.

Magnitude of Impact

The degree and extent to which a project changes the environment.

Mammal

A class of warm-blooded vertebrates, Mammalia, having mammary glands in the female.

Marginalised Groups

Groups characterised by shared traits such as ethnicity, income levels, or disability that are not present or represented in the mainstream of social, economic or political life of a country. Thus, they may be disproportionately adversely affected by project impacts.

Marshalling Yard

Onshore support facilities. An area where materials and equipment are temporarily stored and location of managerial support for South Stream Transport and its contractors. Located at the Russian ports Temyruk and Novorossiysk. For the purposes of this document, marshalling yards are areas within ports.

Maximum Permissible Concentration

An amount, usually a combination of time and concentration, beyond which any exposure of humans to a chemical or physical agent in their immediate environment is unsafe. For the purpose of this report, these are average limits set by the authorities of the Russian Federation.

Maximum Permissible Level

The concentration of a harmful substance within soil or water below which there are no direct or indirect adverse impacts upon human health (where exposure is continuous over a lifetime).

Meroplankton

Meroplankton are organisms that are planktonic for only a part of their life cycles, usually the larval stage. Examples of meroplankton include the larvae of

echinoderms (such as sea urchins and sea stars), crustaceans, marine worms, some marine gastropods and most fish.

Mesophilic meadow

These are grassland and herb communities which are located on a river floodplain. They comprise vegetation communities typical of moist and more nutrient rich environments.

Mesophilic woodland

These woodlands occur in the riverine floodplains and valleys and are dominated by woody species and a diverse woodland ground-flora.

Metocean

Abbreviation of the words 'meteorology' and 'oceanography'.

Meteorological Conditions

The prevailing environmental conditions that include wind, precipitation and sunlight.

Meteorology

Refers to the study of weather

Microtunneling

Microtunneling is a trenchless construction method used to excavate underground tunnels. Microtunneling is defined as a remotely-controlled, guided, ground-boring and pipe-jacking operation that provides continuous support to the excavation face by applying mechanical or fluid pressure to balance groundwater and earth pressures.

Migration

Any regular animal journeys along well-defined routes, particularly those involving a return to breeding grounds.

Millennium Ecosystem Assessment

The Millennium Ecosystem Assessment (MA), a collaboration of over 1,360 experts, was published in 2005 and provided the first state-of-the-art scientific appraisal of the condition and trends in the world's ecosystems and the services they provide and the options to restore, conserve or enhance their sustainable use.

Million tonnes of oil equivalent (mtoe)

A unit of energy representative of the amount of energy released by combustion of one million tonnes of crude oil. Conversion of mtoe to bcm were calculated using a factor of 1 bcm=0.89 mtoe

Mitigation Measures

Management measures put forward to prevent, reduce and where possible, offset any adverse environmental or socio-economic impacts. For the purposes of this document, these measures also include enhancement strategies aimed at increasing beneficial impacts.

Mobile Source Emissions

Exhaust from motor vehicles, airplanes, locomotives, and other engines and equipment that can be moved from one location to another.

Monument

Architectural works, works of monumental sculpture and painting, including cave dwellings and inscriptions, and elements, groups of elements or structures of special value from the point of view of archaeology, history, art or science (UNESCO 1972).

Multi-beam Echo Sounder

A survey instrument that emits multiple acoustic beams of sound waves to determine sea floor depths over a wide area for the purpose of creating bathymetric maps.

Mutagenic

A physical or chemical agent that changes the genetic material, usually DNA, of an organism.

Nauplii

The first larval stage of many crustaceans, having an unsegmented body and three pairs of appendages.

Nearshore Section

Four buried pipelines extending from the exit point of the microtunnels, located approximately 400 m from the coast at a water depth of approximately 23 m, and extends approximately 425 m out to a water depth of 30 m.

Neolithic

The Neolithic culture (c. 7000-2000 BC) developed animal husbandry and agricultural cultivation, alongside hunting wild animals, fishing and gathering wild foods.

Nitrogen dioxide (NO₂)

Nitrogen dioxide is one of several nitrogen oxides and is emitted by (and forms from emissions of) cars, trucks and buses, power plants, and off-road equipment. In addition to contributing to the formation of ground-level ozone, and fine particle pollution, NO₂ is linked with a number of adverse effects on the respiratory system.

Nitric oxide (NO)

A colourless, poisonous gas, produced as an intermediate during the manufacture of nitric acid from ammonia or atmospheric nitrogen.

Nitrogen oxides (NO_x)

Also known as oxides of nitrogen. A group of gases emitted from fossil fuel

combustion that predominantly comprises nitric oxide, nitrogen dioxide, nitrous acid and nitric acid.

Noise

Unwanted sound.

Non-destructive Testing (NDT)

Methods of inspecting and testing the quality or integrity of infrastructure or equipment which do not involve the removal or testing to destruction of representative sections.

Non-methane Volatile Organic Compounds (NMVOC)

See Volatile Organic Compounds. NMVOC excludes methane from this group of chemicals.

Octave Band Centre Frequency

Used within acoustics to define the centre frequency of each octave where successive higher frequencies are represented by a doubling of the frequency.

OECD Common Approaches

The mission of the Organisation for Economic Co-operation and Development (OECD) is to promote policies that will improve the economic and social well-being of people around the world. The OECD provides a forum in which governments can work together to share experiences and seek solutions to common problems. The OECD Common Approaches are Recommendations of the Council on Common Approaches for Officially Supported Export Credits and Environmental and Social Due Diligence adopted by the OECD Council on 28 June 2012. [7]

7 Definition as per the OECD website. Taken from www.oecd.org

Offshore Section

Four pipelines each approximately 225 km in length laid directly on the sea bed from the maximum water depth where dredging works will take place (30 m) to the boundary between the Russian and Turkish EEZs.

Oil Spill Prevention and Response Plan

All contractors and operators of vessels working on behalf of South Stream Transport will be required to developing and implementing an Oil Spill Prevention and Response Plan which will define actions to be taken to minimise the risks of marine oil spillages, as well as the actions to be undertaken following a spillage.

Oligochaete

Any of various annelid worms of the class Oligochaeta, including the earthworms and a few small freshwater forms.

Operational Phase

Phase commencing at the end of construction and pre-commissioning phase (end of 2018) and ending 2065. The Project will have an operational design life of 50 years.

Orogeny

Period of mountain building due to the movement of tectonic plates in the Earth's crust.

Oxides of nitrogen (NO_x)

See nitrogen oxides.

Ozone (O₃)

An unstable, poisonous allotrope of oxygen that is formed naturally in the ozone layer from atmospheric oxygen and also emitted at ground level during combustion of fossil fuels. It is a highly reactive oxidizing agent

used to deodorize air, purify water, and treat industrial wastes.

Particulates or Particulate Matter

Matter in the form of minute separate solid or liquid particles.

Particulate matter (PM_{2.5})

Particulate matter less than 2.5 micrometres in diameter (PM_{2.5}) are called 'fine' particles. These particles can only be detected with an electron microscope. Sources of fine particles include all types of combustion, including motor vehicles, power plants, residential wood burning and some industrial processes.

Particulate matter (PM₁₀)

Particulate matter less than 10 micrometres (or 'microns') in diameter. They are small enough to penetrate deep into the lungs, potentially causing serious health problems. This is mainly due to the combustion of fossil fuels (construction dust for example is generally more coarse).

Party/Parties of Origin

A country involved in a transnational linear project where an activity is planned to be undertaken, which may affect an Affected Party. See Affected Party above.

Pelagic

Freely swimming in the upper water column.

Pelite

Clay

Permanent Halocline Layer

Layer of maximal salinity gradient in the water column.

Permanent Right of Way

During Operational Phase, approximately 95 m wide and 2.5 km long along the landfall section pipelines.

Permanganate oxygen demand

Permanganate is a strong oxidising agent. Permanganate oxygen demand gives an indirect indication of the amount of organic matter or reduced species (typically those containing Fe or Mn) present in groundwater; the higher this value the higher the demand for permanganate and therefore the higher the content of organic/reduced species.

Picoplankton

The smallest component of the plankton, ranging from to 0.2 to 2 µm in size, predominantly comprising bacteria but with some other organisms.

Pipelaying Vessel

A vessel designed for welding together pipelines and laying them on the seabed.

Photic zone

The depth zone of the water column in the sea or other water body that is exposed to sufficient sunlight for photosynthesis to occur. Also known as the 'euphotic' zone the depth of which depends on the clarity of the water and consequent light penetration.

Phytoflagellates

All photosynthetic flagellates, including dinoflagellates, some planktonic green algae and others.

Phytoplankton

The plant component of the plankton comprising a variety of organisms. The most common components of marine

phytoplankton are the diatoms and dinoflagellates.

Pipeline Construction

The construction phase of the pipeline development.

Pipeline Inspection Gauge (PIG)

A bullet shaped, cylindrical or spherical capsule which is inserted into a pipeline and travels along with the fluid in the pipeline. PIGs have a variety of purposes during precommissioning, commissioning and operations, including scraping the pipeline clean from rust, wax or other deposits. More sophisticated PIGs, called intelligent PIGs, carry instrumentation used in pipeline inspection.

Pigging

Pigging is passing a solid plug (PIG) through a pipeline. See above.

Pig Trap Facility

Pig traps are used for inserting PIGs into a pipeline then launching, receiving, and finally removing them without flow interruption.

Pipe Jacking

Pipe jacking is a technique for installing underground pipelines, ducts and culverts. Powerful hydraulic jacks are used to push specially designed concrete pipes through the ground behind a shield or tunnel boring machine at the same time as excavation is taking place. The method provides a flexible, structural, watertight, finished conduit as the tunnel is excavated.

Piscivorous

Habitually feeding on fish; fish-eating

Planktivore

An animal that feeds primarily on plankton

Plankton

Minute plants (phytoplankton) and animals (zooplankton) that drift in the surface waters of seas and lakes.

Polis

Ancient Greek city-state (Greek: πόλις).

Pollution

The introduction by man, directly or indirectly, of substances or energy to the environment resulting in deleterious effects such as harm to living resources.

Polychaete

An important group of segmented marine worms that can be either free-living or tube-dwelling. A major component of the benthos in many areas, polychaete tubes may also form biogenic reefs.

Polypropylene

A thermoplastic polymer used in a wide variety of applications.

Pound nets

Net walls, anchored or fixed on stakes, reaching from the bottom to the surface. Nets are opened at the surface and include various types of fish herding and retaining devices. Normally used to target migrating, pelagic species.

Pottery sherds

The individual pieces of broken ceramic vessels.

Pre-commissioning

Pre-commissioning is the process of proving the ability of a pipeline and piping systems to meet operational requirements prior to putting the pipeline into service.

Prehistoric

The time before recorded history and writing. Includes the Palaeolithic, Epipalaeolithic, Neolithic, Copper Age/Chalcolithic/Eneolithic, Bronze Age and Iron Age periods.

Preservation in place / *in situ*

The preferred sectoral good practice method of treating cultural heritage remains. Where feasible and appropriate, this involves preserving sites in place (*in situ*). Sites will often be given additional protection and safeguard measures such as flagging, fencing, covering, and signage.

Primary Producer

Organism that is able to synthesize organic material (usually sugar) from less complex compounds such as carbon dioxide. Photosynthesis is the fundamental process of in primary production so most primary producers are plants. Primary production also occurs by a process called chemosynthesis, using chemicals instead of light.

Priority ecosystem services

IFC Performance Standard 6 (para. 24) defines priority ecosystem services as:

- i. Those services on which project operations are most likely to have an impact and, therefore, which result in adverse impacts to Affected Communities; and/or
- ii. Those services on which the project is directly dependent for its operations (e.g., water).

The Performance Standards also state that *"when Affected Communities are likely to be impacted, they should participate in the determination of priority ecosystem services in accordance with the stakeholder engagement process as defined in Performance Standard 1"*.

In order to identify priority services in a transparent and systematic manner which supports participation of Affected Communities, priority services are identified in this assessment as those services for which the impacts are assessed to be of moderate or high significance.

The Project

South Stream Offshore Pipeline – Russian Sector.

Project Affected Community

Communities that are affected by the activities of a project. For the purposes of this document, PACs are defined as communities that lie (at least in part) within 2 km of the landfall section of the Project, and within a 300 m zone either side of potential (existing) access roads.

Project Area

Refers to the Landfall, Nearshore and Offshore Sections (not the access roads or marshalling yards which are considered the 'Project').

Project Area of Influence

Where the project involves specifically identified physical elements, aspects, and facilities that are likely to generate impacts, environmental and social risks and impacts will be identified in the context of the project's area of influence

Project Leaflet

Brief publication containing information about a project which is made available to stakeholders.

Project Proponent

The developer, or sponsor, of a project. For the Project, this is South Stream Transport.

Project Zone of Influence

The geographical area within which views of the construction and operational phases of the Project and the marshalling yards could potentially be possible, including views of vehicles and vessels on the land and sea delivery routes.

Proyekt

The Proyekt is the Russian project design documentation submitted to the Russian Authorities for review. The Final EIA Report is incorporated under Chapter 7 of the Proyekt and submitted to the relevant Russian Federation authorities for review and approval.

Proposed Development

Development detailed in the GDP.

Pycnocline

The layer in which the density gradient is greatest within a body of water.

Public Disclosure

Disclosure of project or ESIA-related information to stakeholders for review and as an input to consultations.

Public Hearing

Often, but not always, refers to a public meeting that must be announced, organised and reported upon according to national regulatory requirements. See 'Public meeting'.

Public Meeting

Open meeting which may be attended by any member of the public. Need not be a meeting required under specific legislation.

Purse seine

A long net, which falls as a curtain from a floating head rope, used to surround shoals

of fish. After encirclement, the bottom rope is pulled tight to trap the fish in the 'purse'.

Radionuclide

An atom with an unstable nucleus that decays with the release of radiation. Radionuclides occur naturally or can be produced artificially. Also known as radioisotopes.

Ramp-up

For the purposes of this document, ramp up refers to an increase in the amount of gas being transported through the pipeline(s).

The period after completion of construction of a project during which production begins to increase towards operational / design capacity. In terms of this Project, ramp-up refers to the gradual increase in gas transport rates until operational capacity is met.

Ratified

When a state makes a final approval and formal expression of its consent; for example, to be bound by a treaty or convention. This usually occurs after signature.

Receptor

The aspect of the environment (air, water, ecosystem, human, fauna, etc.) that is affected by/interacts with an environmental or socio-economic impact.

Recycling/Recovery

The conversion of wastes into usable materials and/or extraction of energy or materials from wastes.

Red List / Red Book

For the purposes of this document, this refers the IUCN Red list (see definition below), the National Russian Red Data Book, the regional Krasnodar Red Data

Book or the Black Sea Red Data Book. These books contain animal and plant species that are considered of 'critical' importance under categories such as extinct, endangered and vulnerable. They also list species that are of lower importance under headings such as rare or lower risk. Species are also categorised under data deficient or not evaluated.

Reinstatement Work

The process of returning the landscape affected by the construction of a development back to its previous state.

Remotely Operated Vehicle/ Remotely Operated Towed Vehicle

Remotely Operated Vehicle (ROV) and Remotely Operated Towed Vehicle (ROTV), both of which are used for underwater surveys, are submarine survey robots controlled and powered from the surface by an operator/pilot via an umbilical link.

Reprotoxic

Having a toxic effect on the process of reproduction

Residual Impacts

Residual impacts are impacts that remain after mitigation measures, including those incorporated into the project's Base Case design and those developed in addition to the Base Case design, have been applied.

Reuse

To use a material or product again after it has been used. Reuse may be for the same function or a new function.

Risk

The probability that a specified event will occur and the severity of the consequences of the event.

Routine Activity

An activity that occurs during routine operations when plant, / vessels or equipment is operating as specified within the design base case.

Sacrificial Anode

A metal (usually zinc, aluminium or magnesium) that is placed on offshore steel pipelines to corrode and prevent corrosion of the pipeline by providing cathodic protection (exchange of electrons) of its steel surface.

Salinity

Total amount of salt dissolved in aqueous solution. Salinity is measured in parts per thousand.

Sanitary Protection Zones

A buffer zone between a construction or operating site and nearby residential areas. It is established for industrial facilities that emit pollutants into the atmosphere or have other environmental impacts.

Sapropel

Marine sediment rich in organic matter.

Scoping

Early stage in the ESIA process that appraises the likely key issues requiring detailed assessment. A scoping process (in relation to IFC PS1) is the establishment and maintenance of a process for identifying the initial environmental and social risks and impacts of a project. The aspects of the project (i.e., type, scale and location) along with available baseline data is used to guide the scope and level of effort devoted to the risk and impacts identification in the ESIA. The scoping process is to be consistent with Good International Industry Practice (GIIP) and will determine the appropriate / relevant

methods and assessment procedures. The process also involves a mechanism for the collection of comments made by different stakeholders. [8]

Screening

The process by which a decision is taken on whether or not EIA is required for a particular Project.

Seagrass

The only angiosperms that are adapted to living submerged in the sea. They superficially resemble terrestrial grasses and may form extensive submarine "meadows".

Seascape

Landscapes with views of the coast or seas, and coasts and the adjacent marine environment.

Seaweed

Often called macroalgae, large algae often growing attached to rocks or other solid objects, living below the high-water mark.

Secondary Data

Data collected by someone other than the user.

Sediment

Sediment is any particular matter that is broken down by processes of weathering and erosion, and is subsequently transported by the action of wind, water, or ice, and/or by the force of gravity acting on the particle itself.

Sensitive Receptor

Locations where people that could potentially be impacted by the Project, e.g.,

hospitals, nursing homes, schools, residential housing.

Sensitivity

The recovery rate of the receptor from significant disturbance or degradation.

Sensitivity (of ecological resource)

The recovery rate of flora or fauna from significant disturbance or degradation. Greater levels of sensitivity result in an ecological resource that can more easily be affected or harmed.

Seismicity

The frequency, intensity and distribution of earthquakes in a specific area

Setting (cultural heritage)

The setting of a heritage structure, site or area is defined as the immediate and extended environment that is part of, or contributes to, its significance and distinctive character. Beyond the physical and visual aspects, the setting includes interaction with the natural environment; past or present social or spiritual practices, customs, traditional knowledge, use or activities and other forms of intangible cultural heritage aspects that created and form the space as well as the current and dynamic cultural, social and economic context (ICOMOS 2005 X'ian Declaration on the Conservation of the Setting of heritage structures, sites and areas).

Shell-first Construction

A term used to describe the process by which all or part of the outer hull planking was erected before frames were attached to it.

8 Definition as per the IFC website. Taken from www.IFC.org

Shiblyak

These woodlands are diverse in structure, floristically rich and are dominated by woody species including pubescent oak, oriental hornbeam, and juniper.

Sideboom

A track-type or wheel-type tractor having a boom mounted on the side of the tractor, used for lifting, lowering, or transporting.

Side-scan Sonar

A survey instrument which emits acoustic beams (sound waves) laterally to capture an image of the sea floor for the purpose of locating objects and obstructions.

Signed

When a State expresses its consent to be bound by a treaty.

Site Preparation

The preparation of a site prior to construction of a development, for example levelling of a site to enable access or parking.

Slurry

A suspension of small size solid particles and water. For the purpose of this report this refers to a mix of rock / soil, bentonite and water produced during the excavation of tunnels using a Tunnel Boring Machine.

Soil

A material comprised of a mixture of mineral and organic materials that usually has the ability to support rooted plants in a natural environment.

Source Protection Zone

Equivalent to sanitary zones as defined by the Ministry of Health, Moscow 2002. SanPiN 2.1.4.1110-02.

South Stream Bulgaria AD (SSB)

South Stream Bulgaria AD is a Joint Project Company (JPC) of two major energy companies responsible for the development. The two JPCs are Russian company OAO Gazprom (50% stake) and Bulgarian company Bulgarian Energy Holding EAD (50% stake).

South Stream Offshore Pipeline

The overall South Stream Offshore Pipeline covering all three countries (Russia, Turkey and Bulgaria).

South Stream Transport

Previously, the Project was developed by Gazprom during 2009-2011, and then by South Stream Transport AG during 2011-2012. South Stream Transport then moved head office from Switzerland to the Netherlands and established South Stream Transport B.V., in November 2012.

Spill Prevention and Response Plan

Plan which will be developed and maintained by each Project contractor defining the measures to be taken to minimise the risk of onshore oil spillages and the responses to be taken in the event of a spillage.

Stakeholder

Any individual, group or organisation potentially affected by a project, or which has an interest in, or influence over, a project.

Stakeholder Database

Mechanism for recording stakeholders' comments and concerns, and managing the stakeholder engagement process.

Stakeholder Engagement

As stated by IFC in PS 01 "Stakeholder engagement is the basis for building strong, constructive, and responsive relationships that are essential for the successful management of a project's environmental and social impacts." Thus, it is an activity covering different types of interactions with stakeholders over the life of a project. Can include, but is not limited to disclosure and consultation during preparation of an ESIA Report.

Stakeholder Engagement Plan

A Stakeholder Engagement Plan (SEP) forms part of the ESIA documentation and is intended to provide a plan and implementation strategy to guide stakeholder engagement throughout the project lifecycle.

Stakeholder Identification

A process of identifying individuals or groups likely to be affected by the project both directly and indirectly, and/or who may have an interest in the project or influence over the project.

Stakeholder Mapping

Process of identifying and evaluating stakeholders based on their characteristics and connections to a project, and prioritising them to identify the appropriate type of engagement.

Steppe

A large, flat plain with dominated by grasses and with very few trees.

Stepped Secondary Meadow

These are meadow areas dominated by grasses and herbaceous species that were previously agricultural land (former vineyards, orchards, fields), which are now derelict.

Stinger

A long heavy horizontal structural piece of framework used as a support for the pipeline during offshore pipelaying.

Stratification

A layered configuration of materials. Often used in the context of sediment stratification that describes the vertical changes in sediment characteristics in an active sedimentary basin, like the Black Sea, or in a rock formation.

Stray Finds

Isolated finds of single archaeological artefacts, often portable objects, which do not form part of a wider archaeological site.

Study Area

The mapped geographical area in which potential impacts are predicted (as determined through scoping) and therefore warrants investigation during the ESIA process. This is different for each biophysical and social environmental aspect.

Sub-bottom Profiler

A survey instrument which emits low frequency pulsed acoustic energy (sound waves) used to image sediments and objects buried beneath the sea floor.

Sulphur Dioxide (SO₂)

A toxic gas that can be released by fossil fuel combustion such as industrial processes and road traffic and which is proportional to the sulphur content in the fuel.

Supralittoral

Also known as the splash zone. The area above the spring high tide line that is regularly wetted but not submerged by water.

Surface Water

Ponded water on the surface of the land predominantly in the form of rivers, streams and lakes.

Swale

A man-made swale is a low tract of land or drain that is designed to manage water runoff, filter pollutants, and increase rainwater infiltration. Swales, by slowing and capturing water runoff and by spreading it horizontally across the landscape, facilitate runoff infiltration into the soil.

Taxon

Plural-Taxa. A group of organisms of any taxonomic rank.

Territorial Waters

A belt of coastal waters extending at most 12 nautical miles from the baseline (low water mark) of a coastal state.

Thermocline

Generally a gradient of temperature change, but applied more particularly to the zone of rapid temperature change between the warm surface waters and cooler deep waters in a thermally stratified water column.

Tommilyar

This habitat type is comprised of herbaceous plant communities with a prevalence of species associated with dry, hot environments.

Total Particulate Matter

All particulate matter is the term for solid or liquid particles found in the air.

Town of Anapa

The urbanised area of the town of Anapa, one of many communities within the Anapa Resort Town municipal district.

Toxicity

Inherent potential or capacity of a substance to cause adverse effects on living organisms.

Trailing Suction Hopper Dredger

A ship that removes sediment from the seabed. A trailing suction hopper dredger (TSHD) trails its suction pipe when working, and loads the dredged material into one or more compartments (hoppers) in the vessel.

Transboundary

Crossing a provincial, territorial or national boundary or border.

Transboundary Impact

An impact which crosses any boundaries between two geopolitical boundaries (i.e. a border).

Transnational Linear Projects

Linear projects that span multiple countries.

Trenching

Process by which excavation or dredging equipment is used to excavate a trench.

Trip Generation

An estimate of how much traffic a project will create, known as trip generation analysis.

Trophic

Of or involving the feeding habits or food relationship of different organisms in a food chain.

Turbid

Water containing suspended particles or sediment.

Turbidite

Sediments which are transported and deposited by density flows known as turbidity currents, which are similar to underwater avalanches.

Turbidity (of water)

Water that is cloudy or hazy as a result of a density difference created by dispersed sediment within the body of the water. It is used as a test of water quality.

Tunnel Boring Machine

Tunnel boring machine (TBM) is the tool used to bore through the ground to create a tunnel – it is a remotely operated steel cylinder with a rotating cutting head.

Vibration Acceleration

A measurement of the ground borne acceleration caused by vibration, usually weighted to consider the frequency dependant human response to vibration of different frequencies.

Vibration Velocity

A measurement of the ground borne velocity of the ground caused by vibration, usually weighted to consider the frequency dependant human response to vibration of different frequencies.

Viniculture

The cultivation of grapevines for winemaking.

Visual Amenity

The overall pleasantness of the views enjoyed by people of their surroundings.

Visual Impact

Impact on specific views and on the general visual amenity experienced by people.

Volatile Organic Compounds

A group of chemicals (methane is excluded) that contain the element carbon in their molecular structure (i.e., are 'organic'). They easily vaporise at room temperature and most of them have no colour or smell.

Vulnerable (or disadvantaged)

Term used to describe individuals and groups who may be directly and differentially or disproportionately affected by a project because of their disadvantaged or vulnerable status. This status may stem from an individual's or group's race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth, or other status. Other factors that may contribute to such a status are gender, age, ethnicity, culture, literacy, sickness, physical or mental disability, poverty or economic disadvantage, and dependence on unique natural resources.

Water Table

The water level in an unconfined aquifer at which the pressure head is equal to atmospheric pressure.

Wastewater

Water contaminated with sanitary, commercial, industrial, agricultural or surface runoff wastes.

Waste management facility

An installation which receives waste and either: transfers waste to another destination for processing; prepares the waste for reuse or recycling; carries out a recycling or recovery process; or permanently disposes of the waste.

Wellbeing

The IFC Performance Standards do not provide a definition of well-being although they do make reference to the MA in the context of well-being which defines the term as follows:

"Human well-being is assumed to have multiple constituents, including the basic material for a good life, such as secure and adequate livelihoods, enough food at all times, shelter, clothing, and access to goods; health, including feeling well and having a healthy physical environment, such as clean air and access to clean water; good social relations, including social cohesion, mutual respect, and the ability to help others and provide for children; security, including secure access to natural and other resources, personal safety, and security from natural and human-made disasters; and freedom of choice and action, including the opportunity to achieve what an individual values doing and being. Freedom of choice and action is influenced by other constituents of well-being (as well as by other factors, notably education) and is also a precondition for achieving other components of well-being, particularly with respect to equity and fairness."

Zone of Theoretical Visibility (ZTV)

The zone of theoretical visibility. The geographical area within which the landscape and/or seascape where the Project is theoretically visible.

Zoëa

A stage in the larval development of certain decapod crustaceans, particularly crabs.

Zone of Influence

The geographical area and the ecological features within it which have the potential to be impacted by the Project.

Zoophytes

A plant-like animal, esp. a coral, sea anemone, sponge, or sea lily.

Zooplankton

The animal component of the plankton, including holoplankton (animals that are permanently planktonic) and meroplankton (larval and juvenile stages of non-planktonic animals).

Abbreviations and Acronyms

Abbreviation/Term	Description
3LPP	Three-layer-polypropylene
A	Amp
AADT	Annual Average Daily Traffic
A_{atm}	Sound absorption provided by the atmosphere.
A_{bar}	Sound absorption provided by barriers and topography.
AC	Alternating Current
ACCOBAMS	Agreement on the Conservation of Cetaceans in the Black Sea, Mediterranean Sea and contiguous Atlantic area
AD	Anno Domini
ADPS	Automatic Diesel Power Station
A_{geo}	Sound absorption provided by the geographical spreading of sound.
A_{gr}	Sound absorption provided by the ground.
ALARP	As Low As Reasonably Practicable
A_{misc}	Sound absorption provided by miscellaneous factors, i.e. trees, dense buildings, etc.
AMSS	Adopted Marine Sediment Standard
Anapa GDP	Anapa Growth Development Plan
AP	Action Plan
APC	Approximate Permissible Concentration
APEC	Asia-Pacific Economic Cooperation
API	American Petroleum Institute
ART	Anapa Resort Town
ASNT	American Society for Non-destructive Testing
ASTM	American Society for Testing Materials

Abbreviation/Term	Description
AUT	Automated Ultrasonic Testing
AUV	Autonomous Underwater Vehicle
BAP	Biodiversity Action Plan
BC	Before Christ
bcm	Billion Standard Cubic Metres
BCT	Bat Conservation Trust
BDV	Blow Down Valve
Bq/kg	Becquerels per kilogram
BMP	Biodiversity Management Plan
BOD	Biological Oxygen Demand
BOD ₅	Biochemical consumption of oxygen
BP	Before Present
BS	British Standard
BS-FOCS	Black Sea Fibre Optic Cable
BSI	British Standard Institution
BUCR	Back Up Control Room
c.	Circa
ca.	Approximately
CATS	Corrective Action Tracking System
CBD	Convention on Biological Diversity
cm	Centimetre
cm ₃ /kg	Cubic centrimetres per kilogram
cm/s	Centimetres per second
CCGT	Combined Cycle Gas Turbine

Abbreviation/Term	Description
CCR	Central Control Room
CCTV	Closed-Circuit Television
CEIP	Centre on Emission Inventories and Projections
CEO	Chief Executive Officer
CFP	Chance Find Procedure
CH ₄	Methane
CHO	Cultural Heritage Object
CHP	Combined Heat and Power
CIA	Cumulative Impact Assessment
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CMP	Construction Management Plans
CO	Carbon Monoxide
CO ₂	Carbon Dioxide
CO ₂ -eq	Carbon Dioxide Equivalent
COD	Chemical Oxygen Demand
CoE	Council of Europe
COP-17	United Nations Framework Convention on Climate Change (UNFCCC) 17th Conference of the Parties
CPUE	Catch Per Unit Effort
CR	Critically Endangered (IUCN Red List of Threatened Species)
¹³⁷ Cs	Caesium-137
CS	Compressor Station
CSD	Cutter Suction Dredger
CSR	Corporate Social Responsibility

Abbreviation/Term	Description
CTMP	Construction Traffic Management Plan
°C	Degrees Celsius
D	Directivity Factor
dB	Decibel. The logarithmic ratio of the sound pressure to a reference of 2×10^{-5} Pascals.
dB(A)	A weighted decibel. The logarithmic ratio of the sound pressure to a reference of 2×10^{-5} Pascals, which is then corrected with a frequency dependant weighting to reflect the human ear's response to sound of different frequencies.
DC	Direct Current
DD	Data Defficient (IUCN Red List of Threatened Species)
DDD	Dichlorodiphenyldichloroethane
DDE	Dichlorodiphenyldichloroethylene
DDT	Dichlorodiphenyltrichloroethane
DEFRA	Department for Environment Food and Rural Area
DMRB	Design Manual for Roads and Bridges
DNV	Det Norske Veritas
DP	Dynamic Positioning
DSL	Digital Subscriber Line
EC	European Commission
ECA	Export Credit Agency
ECoW	Ecological Clerk of Works
EEA	European Environment Agency
EEZ	Exclusive Economic Zone
EIA	Environmental Impact Assessment
EIS	Environmental Impact Study

Abbreviation/Term	Description
EHS	Environmental Health and Safety
EN	European Standards
EN	Endangered (IUCN Red List of Threatened Species)
ENVIID	Environmental Impact Identification
EMEP	European Monitoring and Evaluation Programme
EMF	Electromagnetic Field
EMSA	European Maritime Safety Agency
EP	Equator Principles
EPC	Engineering, Procurement and Construction
EPFI	Equator Principles Financial Institutions
EPRS	Emergency Pipeline Repair Strategy
ERP	Emergency Response Plan
ESD	Emergency Shutdown
ESIA	Environmental and Social Impact Assessment
ESIVI	Ecosystem Services Identification, Valuation, and Integration
ESMP	Environmental and Social Management Plan
ESMS	Environmental and Social Management System
ESS	Ecosystem Services
ESVs	Emergency Shutdown Valves
EU	European Union
EU-27	The term used to group the 27 countries that are official member states of the EU: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovak Republic, Slovenia, Spain, Sweden, United Kingdom.
EWG	Expert Working Group on the Assessment of Black Sea Stocks

Abbreviation/Term	Description
EXW	Extinct in the Wild (IUCN Red List of Threatened Species)
E&I	Electrical and Instrumentation
FCV	Flow Control Valve
FEED	Front End Engineering and Design
FFA	Federal Fisheries Agency
FOC	Fibre Optic Cable
FVR	Fishing Vessel Register
FWCC	Federal Waste Classification Catalogue
F&G	Fire and Gas
g	Grams
g/s/m ²	Grams per second per square metre
GDP	Gross Domestic Product
GDP	Growth Development Plan (Anapa District)
GFCM	General Fisheries Commission for the Mediterranean
GFMU	Gas Flow Rate Metering Unit
GFRP	Glass-Fibre Reinforced Plastic
GHG	Green House Gas
GIIP	Good International Industry Practice
GIS	Geographic Information System
GPa	Gigapascal
GPU	Gas Pumping Unit
GR	Group Risk
GRP	Gross Regional Product
GRT	Gross Registered Tonnage

Abbreviation/Term	Description
GSM	Global System for Mobile Communications
GT	Gross Tonnage
GVW	Gross Vehicle Weight
ha	Hectare
HAZCON	Hazard Construction
HAZID	Hazard Identification
HAZOP	Hazard and Operability Study
HCB	Hexachlorobenzene
HCH	Hexachlorocyclohexane
HDD	Horizontal Directional Drilling
HEMP	Hazards and Effects Management Process
HFO	Heavy Fuel Oil
HGV	Heavy Goods Vehicle
HP	Horse Power
HRA	Health Risk Assessment
HSS	Heat Shrink Sleeve
HSSE	Health, Safety, Security and Environmental
HSSE-IMS	Health Safety Security and Environmental Integrated Management System
HVAC	Heating Ventilation Air Conditioning
HVL	High Voltage Lines
Hz	Hertz
H ₂ S	Hydrogen Sulphide
IA-MAS	Institute of Archaeology - Moscow Academy of Sciences
IAQM	Institute of Air Quality Management

Abbreviation/Term	Description
IBA	Important Bird Area
ICCP	Impressed Current Cathodic Protection
ICNIRP	International Commission on Non-Ionizing Radiation Protection
ICOMOS	International Council on Monuments and Sites
ICPC	International Cable Protection Committee
ID	Inside Diameter
IEA	International Energy Agency
Ifa	UK Institute for Archaeologists
IFC	International Finance Corporation
IFC PS	International Finance Corporation Performance Standards
IFI	International Financial Institutions
IFO	Intermediate Fuel Oil
ILO	International Labour Organisation
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organisation
IR	Individual Risk
ISO	International Organization for Standardization
ITUR	Italy-Turkey-Ukraine-Russia
IUCN	International Union for the Conservation of Nature
JBIC	Japan Bank for International Cooperation
JSA	Job Safety Analysis
JSC	Joint Stock Company
kg	Kilogram
kg/m ³	Kilograms per Cubic Metre

Abbreviation/Term	Description
Kg/s	Kilograms per Second
kJ	Kilojoule
km	Kilometre
kV	Kilovolt
kVa	Kilovolt Amp
kV/m	Kilovolts per metre
kW	Kilowatt
⁴⁰ K	Potassium-40
KK	Krasnodar Krai
KP	Kilometre Post
KPIs	Key Performance Indicators
KSHAM	Krasnodar State Historic-Archaeological Museum named Felitsin
KSU	Kuban State University
l	Litre
L _{Aeq}	A-weighted, Equivalent Sound Level
L _{eq}	The energy equivalent noise. The constant noise levels that will convey the same acoustic energy as a varying noise level over a specified time period. The L _{Aeq} is the same but has been A weighted to represent the human perception to sound of different frequencies.
L _{AFmax}	The maximum noise level measured during a specified time period, usually measured with a fast time weighting, A-weighted to represent human hearing response and is representative of impulsive noise events.
L _{max}	The maximum noise level measured during a specified time period, usually measured with a fast time weighting, and is representative of impulsive noise events.
LC	Least Concern (IUCN Red List of Threatened Species)
LCA	Landscape Character Area
LDV	Light Duty Vehicle

Abbreviation/Term	Description
LLC	Limited Liability Company
LNG	Liquefied Natural Gas
LOA	Length Over All
LVIA	Landscape and Visual Impact Assessment
L_w	The Sound Power Level of a noise source.
m	Metre
m^2	Square Metre
m^3	Cubic Metre
mbsl	Metres below sea level
m+BS	Metres above Black Sea
mg	milligram (0.001 g)
mg/kg	Milligram per kilogram
mg/l (or mg/L)	Milligram per litre
$\mu\text{g}/m^3$	Micrograms per cubic metre of air
mg/m^3	Milligrams per metre cubed
mm	Millimetre
μM	Micromolar
μm	Micrometre (0.000001 m)
MPa	Megapascal
m/d	Metres per day
m/s	Metres per second
mSv/h	Millisieverts per hour
μT	MicroTesla
mV	Millivolt

Abbreviation/Term	Description
MW	Megawatt
Ma	Million years ago
MA	Millennium Ecosystem Assessment
MAC	Maximum Allowable Concentrations
MAH	Major Accidents Hazard
MBSC	Main Black Sea Current
MDO	Marine Diesel Oil
MDS	Multi-dimensional Scaling
MED	Materials and Equipment Depot
MEG	Mono Ethylene Glycol
MFE	Mass Flow Excavation
MGO	Marine Gas Oil
MMCM	Million Cubic Metres
MMO	Marine Mammal Observers
MMSCM	Million Standard Cubic Metres
MoC	Ministry of Culture of the Russian Federation
MNRE	Ministry of Natural Resources and Environment
MPC	Maximum Permissible Concentrations
MPE	Maximum Permissible Emissions
MPL	Maximum Permissible Levels
MSDS	Material Safety Data Sheet
MSL	Mean Sea Level
MSV	Multi Service Vehicle
mtoe	Million tonnes of oil equivalent.

Abbreviation/Term	Description
MW (Physical Environment)	Moment Magnitude
ng	Nanogram (0.000 000 001 g)
N ₂	Nitrogen
Na ₂ CO ₃	Sodium Carbonate (also known as Soda Ash)
NACE	National Association of Corrosion Engineers
NAFA	National Agency of Fisheries and Aquaculture (Bulgaria)
NDE	Non-Destructive Examination
NDJB	Negative Distribution Junction Box
NGO	Non-Governmental Organisation
NO ₂	Nitrogen dioxide
NO	Nitric oxide
NO _x	Nitrogen Oxide
NM	Nautical Mile
NMVOC	Non-methane Volatile Organic Compounds
NR	Near Threatened (IUCN Red List of Threatened Species)
NTS	Non-Technical Summary
n/a	'not available' or 'not appraised'
O ₃	Ozone
OCP	Organochlorine Pesticides
OD	Outside Diameter
OECD	The Organisation for Economic Co-operation and Development
OGP	International Association of Oil & Gas Producers
OH&S	Occupational Health and Safety

Abbreviation/Term	Description
OMP	Operations Management Plans
OSCAR	Oil Spill Contingency and Response
OSPAR	Oslo Paris Commission
OWS	Oily Water Separator
PABX	Private Automatic Branch Exchange
PAC	Project-affected Community
PAH	Polycyclic Aromatic Hydrocarbons
PCB	Polychlorinated biphenyl
PIG	Pipeline Inspection Gauge
PIMS	Pipeline Integrity Management System
PLONOR	Pose Little or No Risk to the Environment
PM	Total particulates
PM ₁₀	Particulate matter with a diameter of 10 microns or less
PM _{2.5}	Particulate matter with a diameter of 2.5 microns or less
POP	Persistent Organic Pollutants
ppb	Parts per billion
ppm	Parts per million
PS	Performance Standards (of the International Finance Corporation)
PSD	Process Shut Down
PSDC	Project Specific Design Code
PSTN	Public Switched Telephone Network
PSU	Practical Salinity Units
PSV	Pipe Supply Vessel
pW	pico Watt

Abbreviation/Term	Description
QRA	Quantified Risk Assessment
²²⁶ Ra	Radium-226
RAS	Russian Academy of Sciences
RDB	Red Data Book
RDB KK	Red Data Book of the Krasnodar Krai region
RDB RF	Red Data Book Russian Federation
RDL	Red Data List
RF	Russian Federation
Rosstat	Russian Federal State Statistical Service
ROTV	Remotely Operated Towed Vehicle
ROV	Remotely Operated Vehicle
RoW	Right of Way
RSFSR	Russian Soviet Federative Socialist Republic
RTU	Remote Terminal Unit
RUB	Russian Roubles
Russkaya CS	Russkaya Compressor Station
RV	Research Vessel
s	Second
SAR	Search and Rescue
SCA	Seascape Character Area
SCADA	Supervisory Control and Data Acquisition
SCD	Stakeholder and Consultation Database
SEER	State Environmental Expert Review
SEMS	Stakeholder Engagement Management System

Abbreviation/Term	Description
SEP	Stakeholder Engagement Plan
SER	State Expert Review
SIMOPS	Simultaneous Operations
Sm ³	Standard Cubic Metre
SMPEP	Shipboard Marine Pollution Emergency Plan
SNiP	Russian National Standards - Construction Norms and Rules
SOLAS	Safety of Life at Sea
SOPEP	Shipboard Oil Pollution Emergency Plan
SO ₂	Sulphur dioxide
Sp	Species
SPA	Sanitary Protection Area
SPNA	Special Protected Natural Area
SPZ	Sanitary Protection Zones
⁹⁰ Sr	Strontium-90
SSB	South Stream Bulgaria AD
SSS	Side-scan Sonar
SSSD	Side-scan Sonar Device
SSTAG	South Stream Transport A.G.
SSTBV	South Stream Transport and Trading B.V.
STECF	Scientific, Technical and Economic Committee for Fisheries
TAC	Total Allowable Catch
TBM	Tunnel Boring Machine
TCS	Telecommunication System
TCV	Temperature Control Valve

Abbreviation/Term	Description
TEEB	The Economics of Ecosystems and Biodiversity
²³² Th	Thorium-232
Ti-MMO	Titanium-Mixed Metal Oxide
ToR	Terms of Reference
TPC	Tentative Permissible Concentrations
TPE	Temryuk Port Expansion
TPH	Total Petroleum Hydrocarbons
TR	Transformer Rectifier
TRTF	Transmitting Radio-technical Facilities
TSHD	Trailing Suction Hopper Dredger
WMP	Waste Management Plan
WRI	World Resources Institute
UGS	United Gas Supply system
UHF	Ultra High Frequency
UK	United Kingdom
UNECE	United Nations Economic Commission for Europe
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
URS	URS Infrastructure and Environment UK Limited
USB	Ultra-Short Baseline
USEPA	United States Environmental Protection Agency
USSR	Union of Soviet Socialist Republics
UV	Ultraviolet
UXO	Unexploded Ordnance

Abbreviation/Term	Description
V	Volt
VEC	Valued Environmental and Social Component
VIV	Vortex Induced Vibration
VOC	Volatile Organic Compound
VoIP	Voice-over-Internet Protocol
VSAT	Very Small Aperture Terminal
Vu	Vulnerable (IUCN Red List of Threatened Species)
WHO	World Health Organization
WRB	World Reference Base for Soil Resources
WRI	World Resources Institute
ZTV	Zone of Theoretical Visibility