

Appendix **A**

- Evaluation of Stream Conditions
- Selecting Bankfull Stage
- Bank Erosion Pins
- Glossary of Stream Related Terms
- Who to Call List

Evaluation of Stream Conditions

OBSERVABLE CONDITION	LIKELY CAUSES	FOR FURTHER INFORMATION
PHYSICAL		
<p>Sediment: the stream bottom is almost completely covered with deposition and there may be moving sand bars. Sedimentation may be associated with brown or reddish stream color during high flow conditions.</p>	<p>Mud, silt, or sand on the stream bottom may result from surface runoff from construction sites or exposed soils, channel alterations, or bank undercutting and slumping.</p>	<p>Examine upstream areas for development activities with inadequate sediment control, streambank modification, or severely undercut or slumping streambanks. Unpaved roads can also be a significant source of sediment.</p>
<p>Aquatic Weeds covering the water surface or stream bottom, especially in pond or slow moving areas with sunlight.</p>	<p>This may be a difficult problem to assess because aquatic plants can be indicators of a high quality habitat, such as a wetland or a shallow, muddy backwater. Sometimes, they are a symptom of excessive nutrients, especially when there are long strands of algae present.</p>	<p>Examine upstream areas for sources of nutrients such as sewage, heavily fertilized areas (e.g. golf courses or croplands), car washes, livestock areas or washwater discharges from food processing industries.</p>
<p>Bank Stains or Dry Weather Discharges from Pipes: stains may be observed on streambanks (which would indicate a spill, leachate or a sporadic discharge) or below pipes (which suggests an intermittent or periodic discharge). Dry weather flow may be discharged from pipes protruding from the streambank or from storm sewer pipes (normally large and composed of concrete).</p>	<p>Bank stains and mats of dried materials, especially below pipes, are likely to indicate sporadic discharges of oil, organic wastes or the discharges of washwaters or process wastes. Dry weather flow from storm sewer pipes would suggest washwaters from paved areas or direct connections to commercial or industrial drains. Flow from other pipes along the streambanks may be non-contact cooling water (legal with a permit) or washwaters or process wastewaters from nearby activities.</p>	<p>Examine the stain or discharge and its texture. Is it familiar? Stains and discharges from pipes along the streambanks are likely to result from nearby or adjacent activities. However, dry weather flows discharged from storm sewers can come from remote locations. The procedure for locating the source of such discharges is to follow the storm sewer. Continue looking or listening for flow in curbside inlets or storm sewer manholes until you find the discharge source or identify the activity causing the discharge.</p>
<p>Algae: floating or attached tiny plants which can color the water green, resemble seaweed when affixed to the stream bottom, form a surface scum, or have an oil-like appearance.</p>	<p>Algal growth indicates an upstream nutrient source.</p>	<p>Examine upstream areas for sources of nutrients (see above).</p>

OBSERVABLE CONDITION	LIKELY CAUSES	FOR FURTHER INFORMATION
PHYSICAL		
<p>Dingy White or Grey (or even brown-stained) Cotton-like Tufts: hair-like growths, which are attached to the stream bottom or objects in the stream.</p>	<p>This growth is probably Sphaerotilus, or iron bacterium, which thrives on organic matter. When a continuing abundance of organic wastes is available they grow in colonies, which resemble dingy cotton. This could sometimes be sulphur bacteria in south Georgia.</p>	<p>Look for nearby wastewater discharges or sources of nutrients and organic wastes such as food processing plants.</p>
<p>Foam or Bubbles floating on the water surface.</p>	<p>When foaming occurs in only a few scattered patches, is less than 3 inches high, and cream colored, it is probably natural. If the foaming is extensive, white in color or thicker than 3 inches, it may be due to detergents or surfactants entering the stream. White foam can also be caused by fertilizer leachate.</p>	<p>Examine upstream areas for industrial, municipal or residential wastewater sources or other sources of nutrients.</p>
<p>Leaking or Surcharging Sanitary Sewers or Manholes: white to gray musky smelling discharges from a joint or a crack in a pipe (normally-cast iron) or a sewer manhole. Sewage may be seen gushing from a manhole top. Grey mat materials draped on or deposited near a manhole may indicate past overflows.</p>	<p>Sanitary sewers and manholes can fail or clog over the course of time and leak or surcharge from manholes.</p>	<p>Report immediately to the local public works department.</p>
<p>Red Mats on the stream bottom which appear to be shimmering with the current and disappear when disturbed. (Not to be confused with iron bacteria).</p>	<p>These are colonies of aquatic, segmented worms called sludge worms. These individuals resemble small earthworms and are also an indication of heavy organic waste loads.</p>	<p>Examine upstream areas for sources of organic wastes.</p>
<p>Orange-Red Surface Film or Floc-like Deposits in slow-flowing or pond areas. The surface film breaks up when stirred.</p>	<p>This is normally a naturally occurring phenomenon resulting from iron bacteria growth. It is generally associated with acidic soils, or can be enhanced by iron in surface runoff or leachates.</p>	<p>Examine upstream areas for sources of organic wastes or wastewater.</p>

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PHYSICAL		
<p>Sludge Deposits/Bubbles Rising to Surface: normally deposits of thick dark gray to black, “mucky” material. The top few inches of sediment and objects in the water may be stained black. Sometimes bubbles may be observed rising to the surface.</p>	<p>Sludge deposits are the result of solid organic matter, which has settled to the bottom in quiet areas. When the dissolved oxygen level in the water is severely depleted, anaerobic bacteria (they function without oxygen) reduce nitrogen and sulphur compounds creating gases, which bubble to the surface and create the characteristic rotten egg (hydrogen sulfide) odor.</p>	<p>Examine upstream areas for sources of heavy oil such as industries or fuel storage areas. Bank stains are likely to be evident.</p> <p>Look for a label to identify the contents of the barrel or container. If there is no label or the barrel is labeled hazardous, call the EPD Hazardous Waste Program (404/656-7802) or Emergency Response Team (1-800-241-4113 or 656-4863 in the Atlanta area). DO NOT REMAIN NEAR OR ATTEMPT TO DEAL WITH HAZARDOUS MATERIALS, AS THEY COULD BE DANGEROUS TO BREATHE OR TOUCH.</p>
<p>Oil Released from Sediment when sediment is stirred up.</p>	<p>Heavy oils may settle out and be deposited in sediment. When the sediment is stirred up the oil is re-suspended.</p>	
<p>Barrels or Containers in stream or on streambanks.</p>	<p>Empty barrels and containers may contain traces of hazardous or polluting substances.</p>	
WATER COLOR		
<p>Light Brown (muddy or cloudy), especially during high flows.</p>	<p>Mud, silt, sand on bottom or entering the stream from such sources such as surface runoff from construction activities, channel alterations, or bank undercutting and scouring is suspended in the water column.</p>	<p>Examine upstream areas for development activities with inadequate sediment control practices, streambank modifications, or severely undercut streambanks.</p>
<p>Green, especially deep green or blue-green.</p>	<p>If the stream is noticeably green, this could be an indication of “organic” pollution being released into the stream feeding algae (hence the term algal bloom) and other aquatic plants.</p>	<p>Examine upstream areas for sources of nutrients such as sewage, heavily fertilized areas like golf courses or croplands, car washes, livestock areas or wastewater discharges from food processing industries.</p>
<p>Dark Red, Purple, Blue or Black in comparison to normal stream color in the area.</p>	<p>This would normally indicate organic dye from leather tanning or clothing manufacturers.</p>	<p>Examine upstream areas for potential sources such as pipes or ditches from industrial plants.</p>

OBSERVABLE CONDITION	LIKELY CAUSES	FOR FURTHER INFORMATION
PHYSICAL		
<p>Multi-Colored Film or Reflection over an extensive portion of the stream surface, which does not break apart when, stirred.</p>	<p>This is typically a hydrocarbon product such as oil or gasoline resulting from spills, discharges, or runoff from vehicle maintenance areas.</p>	<p>If continuously flowing, follow the sheen back to its point of origin or look for dark bank stains, dripping pipes, stains in tributaries or likely sources of oil and gas such as service stations, car dealers, storage tanks, or vehicle service areas.</p>
<p>Milky/White</p>	<p>This color of water can indicate streambed substrate disturbance or runoff from a parking lot or construction site.</p>	<p>Examine your watershed to see if any land disturbance is occurring.</p>
<p>Tannic</p>	<p>Tannins are natural organic matter that can result from nature's fermentation process as water passes through the ground in peaty areas or through levels of decaying vegetation. Tannins are typical found in shallow wells, in swampy or marshy areas as well as coastal areas. Water can be yellow to brown/red.</p>	<p>Tannins do not pose a health issue. However, if you see tannic water in areas not naturally known for this occurrence, this could indicate pollution discharges.</p>
ODOR		
<p>Rotten egg</p>	<p>This may indicate sewage pollution or sludge deposits, but this odor may also be present in swamps, marshlands, or slow moving streams where leaf litter and other organic matter has settled.</p>	<p>Examine upstream areas for a source of sewage, heavy organic wastes, or animal wastes.</p>
<p>Sewage</p>		<p>Examine upstream areas for raw wastewater discharges; gray discolored flows, septic tank leachate or leaking sewers or manholes.</p>

Selecting Bankfull Stage

(Modified from Harrelson et al. 1994)

Bankfull discharge is defined as water discharged when the stream water just begins to overflow into the active floodplain; the active floodplain is defined as a flat area adjacent to the channel constructed by the river and overflowed by the river at a recurrence interval of about 2 years or less (Wolman and Leopold 1957). If you observe a stream at bankfull discharge, the water level will be obvious, but this discharge is infrequent. The average discharge, which you are more likely to encounter, fills about 1/3 of the channel, and is reached or exceeded only 25% of the time (Leopold 1994).

Floodplains are the best indicator of bankfull stage. Floodplains are most prominent along low-gradient, meandering reaches, and are often difficult or impossible to identify along steeper mountain streams. The floodplains may be intermittent on alternate sides of meander bends or may be completely absent. Recently disturbed systems may give false indicators of bankfull status.

Where floodplains are absent or poorly defined, other indicators may serve as surrogates to identify bankfull stage. Several indicators should be used to support identification of the bankfull stage; use as many as can be found. These include:

TOP OF POINTBARS

The pointbar consists of channel material deposited on the inside of meander bends. They are a prominent feature of low-gradient, meandering reaches but may be absent in other stream types. Set the top elevation of pointbars as the lowest possible bankfull stage since this is the location where the floodplain is being constructed by deposition.

CHANGE IN VEGETATION

Look for the low limit of perennial vegetation on the bank, or a sharp break in the density or type of vegetation. On surfaces lower than the floodplain, vegetation is either absent or annual. On the floodplain (above bankfull stage) vegetation may be perennial but is generally limited to typical streamside types. Willow, alder, and dogwood often form lines near bankfull stage. The lower limit of mosses or lichens on rocks or banks, or a break from mosses to other plants, may help identify bankfull stage.

CHANGE IN SLOPE

Changes in slope occur often along the cross-section (e.g., from vertical to sloping, from sloping to vertical, or from vertical or sloping to flat at the floodplain level). The change from a vertical bank to a horizontal surface is the best identifier of the floodplain and bankfull stage, especially in low-gradient meandering streams. Many banks have multiple breaks, so be careful and examine banks at several sections of the selected reach for comparison. Slope breaks also mark the extent of stream terraces. Terraces are old floodplains that have been abandoned by a down cutting stream. They will generally have perennial vegetation, definite soil structure and other features to distinguish them from the active floodplain. Avoid confusing the level of the lowest terrace with that of the active floodplain; they may be close in elevation.

CHANGE IN BANK MATERIALS

Any clear change in particle size may indicate the operation of different processes (e.g., coarse, scoured gravel moving as bedload in the active channel giving way to fine sand or silt deposited by overflow). Look for breaks from coarse, scoured, water-transported particles to a finer matrix that may exhibit some soil structure or movement. Changes in slope may also be associated with a change in particle size. Change need not necessarily be from coarse to fine material, but may be from fine to coarse.

BANK UNDERCUTS

Look for bank sections where perennial vegetation forms a dense root mat. Feel up beneath this root mat and estimate the upper extent of the undercut. This estimate is usually slightly below bankfull stage. Bank undercuts are best used as indicators in steep channels lacking floodplains. Where a floodplain exists, the surface of the floodplain is a better indicator of bankfull stage than undercut banks that may also exist.

STAIN LINES

Look for frequent inundation water lines on rocks. These lines may be marked by sediment or lichen. Stain lines are often left by lower, more frequent flows, so bankfull is at or above the highest stain line.

Deposits of pine needles, twigs, trash and other floating materials are common along streams, but are seldom good indicators of bankfull stage. A receding stream may leave several parallel deposits. Floods may also leave organic drift above the bankfull stage.

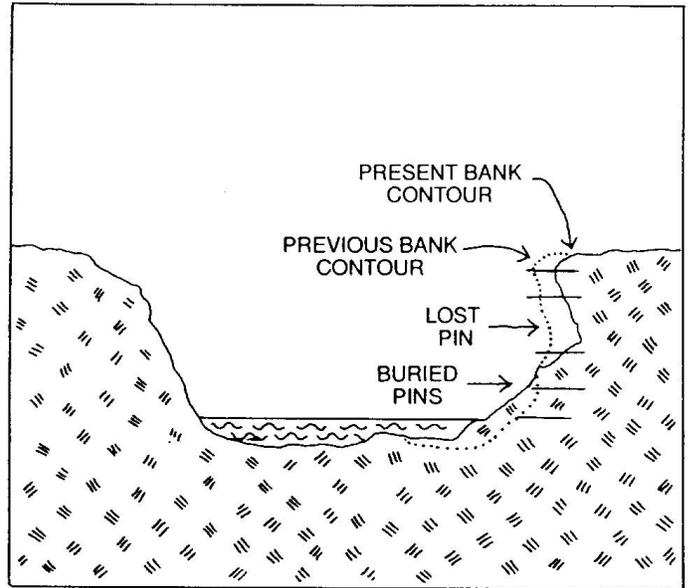
If stream gage data is available for the stream, observations of indicators at or near the gages may help to identify the indicators most useful for a particular area. Ratios of present-to-bankfull discharge can be used to estimate bankfull stage at nearby sites. Also, compare your bankfull discharge to the regional averages by drainage area. Use the graphs to validate your selected bankfull stage. If it is unreasonably different, examine your methods.

Bank Erosion Pins

Method For Measuring Erosive or Depositional Changes In Streambed And Banks
(from USDA Forest Service General Technical Report RM-245)

Repeated cross-section and longitudinal profile surveys will measure erosive or depositional changes in banks, but smaller changes may be registered by using bank erosion pins. These are fine metal rods (1/16" – 1/8" x 4" – 12" long) inserted horizontally at regular intervals into a stream bank, leaving a standard length exposed. Measure the elevation of each pin with a rod and level.

On successive visits to the site, measure the exposure of each pin and record it, then drive exposed pins into the bank. If pins are entirely lost, make a note and insert another pin at the same elevation. Below is a diagram of erosion pins and placement.



Bank erosion pins and placement

Glossary of Stream Related Terms

Accuracy – a measure of how close repeated trials are to the desired target.

Acid Rain – rain with a pH of less than 5.6; results from atmospheric moisture mixing with sulfur and nitrogen oxides emitted from burning fossil fuels; can cause damage to buildings, car finishes, crops, forests, and aquatic life.

Acidity – a measure of the number of free hydrogen ions (H⁺) in a solution that can chemically react with other substances.

Algae – simple plants which do not grow true roots, stems, or leaves and which live mainly in water, providing a base for the food chain.

Algal Bloom – a heavy growth of algae in and on a body of water as a result of high nitrate and phosphate concentrations from farm fertilizers and detergents.

Alkalinity – a measure of the negative ions that are available to react and neutralize free hydrogen ions. Some of the most common of these include hydroxide (OH⁻), sulfate (SO₄²⁻), phosphate (PO₄³⁻), bicarbonate (HCO₃⁻) and carbonate (CO₃²⁻)

Ambient – pertaining to the current environmental condition.

Assemblage – the set of related organisms that represent a portion of a biological community (e.g., benthic macroinvertebrates).

Bearing – direction one object is from another object.

Bankfull – the channel at the top-of-bank or point from where water begins to overflow onto a floodplain.

Benthic – pertaining to the bottom (bed) of a water body.

Best Management Practices (BMPs) – an engineered structure or management activity, or combination of these, that eliminates or reduces an adverse environmental effect of pollutants.

Biochemical Oxygen Demand (BOD) – the amount of oxygen consumed by microorganisms as they decompose organic materials in water.

Biological Criteria – numerical values or narrative descriptions that depict the biological integrity of aquatic communities in that state. May be listed in state water quality standards.

Buffer – a vegetated area near a stream, usually forested, which helps shade and partially protect a stream from the impact of adjacent land uses.

Channel – the section of the stream that contains the main flow.

Channelization – the straightening of a stream; this is often a result of human activity.

Channel Sinuosity – the frequency of bends that occur in a stream.

Chemical Constituents – chemical components that are part of a whole.

Clear Cutting – felling and removing all trees in a forest area.

Cobble Stone – 2-10 inch size stones among which aquatic insects are commonly found.

Combined Sewer Overflow (CSO) - sewer systems in which sanitary waste and stormwater are combined in heavy rains; this is especially common in older cities. The discharge from CSOs is typically untreated.

Community – the whole of the plant and animal population inhabiting a given area.

Culvert – a man-made closed passageway (such as a pipe) under roadways and embankments, which drains surface water and diverts natural flow.

Designated Uses – state-established desirable uses that waters should support, such as fishing, swimming, and aquatic life. Listed in state water quality standards.

Dissolved Oxygen (DO) – oxygen dissolved in water and available for living organisms to use for respiration.

Distilled water – water that has had most of its impurities removed.

Dredge – to remove sediments from the streambed to deepen or widen the channel.

Effluent – an out-flowing branch of a main stream or lake; liquid materials (i.e. industrial refuse, treated wastewater) discharged into the environment.

Ecoregion – geographic areas that are distinguished from others by ecological characteristics such as climate, soils, geology, and vegetation.

Embeddedness – the degree to which rocks in the streambed are surrounded by sediment.

Emergent plants – plants rooted underwater, but with their tops extending above the water.

Epifaunal Substrate – the organic and inorganic material that is available within the stream for organisms to live in or on. Otherwise known as ‘available cover.’

Erosion – the wearing away of land by wind or water.

Eutrophication – the natural and artificial addition of nutrients to a waterbody, which may lead to depleted oxygen concentrations. Eutrophication is a natural process that is frequently accelerated and intensified by human activities.

Floating plants – plants that grow free-floating, rather than being attached to the stream bed.

Flocculent (floc) – a mass of particles that form into a clump as a result of a chemical reaction.

Gabion – a mesh “cage” containing earth or rocks placed into a stream to support the banks or slow the current.

Glide/run – section of a stream with a relatively high velocity and with little or no turbulence on the surface of the water.

Fish kill – the sudden death of fish due to the introduction of pollutants or the reduction of dissolved oxygen concentration in a water body.

Floodplain – a low area of land surrounding streams or rivers, which holds the overflow of water during a flood.

Flow (Stream)– the direction of movement of a stream or river. It is also is the volume of water passing a fixed point over a unit of time and is usually expressed in cubic feet per second (cfs)

Groundwater – a supply of fresh water under the earth's surface, which forms a natural reservoir.

Headwaters – the origins of a stream. They are the smaller tributaries that carry water from the upper reaches of the watershed to the main channel of the river.

Hypoxia – depletion of dissolved oxygen in an aquatic system.

Impairment – degradation.

Impoundment – a body of water contained by a barrier, such as a dam.

Land Uses – activities that take place on the land, such as construction, farming, or tree clearing.

Leaching – the process in which material in the soil (such as nutrients, pesticides, and chemicals) are washed into lower layers of soil or are dissolved and carried away by water.

Macroinvertebrates – organisms that lack a backbone and can be seen with the naked eye.

Nonnative – a species living outside its native distributional range, which has arrived there by human activity.

Nonpoint Source Pollution – pollution that cannot be traced to a specific point, and comes from many individual places (e.g., urban and agricultural runoff).

NPDES – National Pollutant Discharge Elimination System, a national program in which pollution dischargers such as factories and sewage treatment plants are given permits to discharge. These permits contain limits on the pollutants they are allowed to discharge.

Nutrients – substances which enhance the growth of plants and animals, such as phosphorous and nitrogen compounds.

Orthophosphate – inorganic phosphorus dissolved in water.

Outfall – the pipe through which industrial facilities and wastewater treatment plants discharge their effluent (treated wastewater) into a waterbody.

Permeable – porous; having openings through which liquid or gaseous substances can penetrate.

Pesticide – a chemical that kills insects and rodents. Pesticides can poison aquatic life when they reach surface waters through runoff.

pH – a numerical measure of the hydrogen ion concentration used to indicate the alkalinity or acidity of a substance. Measured on a scale of 1.0 to 14.0; 7.0 is neutral, greater than 7 is acidic, less than 7 is basic.

Phosphorus – a nutrient that is essential for plants and animals.

Photo Point Monitoring– photo point monitoring is a standardized method for taking photographs of resources so they can be compared over time.

Photosynthesis – the chemical reaction in plants that utilizes light energy from the sun to convert water and carbon dioxide into simple sugars. This reaction is facilitated by chlorophyll.

Point Bars – deposits of sediment on the inside of a meander or bend of stream.

Point Source Pollution – a type of pollution that can be tracked down to a specific source such as a factory discharge pipe.

Pollutant – something that makes land, water or air dirty and unhealthy.

Pool – deeper portion of a stream where water flows more slowly than in neighboring, shallower portions.

Precision – a measure of how close repeated trials are to each other.

Protocol – defined procedure.

Reach (Total Stream): A reach is a representative length of your stream. The length of your reach should be 12 times the active channel width, which is the width of your stream at bankfull discharge.

Reagent – a substance or chemical used to indicate the presence of a chemical or to induce a reaction to determine the chemical characteristics of a solution.

Riffle – a shallow section in a stream where water is breaking over rocks, cobble, wood or other substrate in the streambed causing surface agitation.

Riparian – of or pertaining to the banks of a body of water.

Riparian Vegetative Zone – the vegetated area along either side of the stream channel.

Riprap – rocks used on an embankment to protect against bank erosion.

Run – these areas differ from riffles in that depth of flow is typically greater and slope of the bed is less than that of riffles. Runs will often have a well-defined thalweg.

Runoff – water, including rain and melted snow, which is not absorbed into the ground but instead flows across the land and eventually runs into streams and rivers. Runoff can pick up pollutants from the air and land, carrying them into the stream.

Saturated – inundated; filled to the point of capacity or beyond.

Sediment – soil, sand, and materials washed from land into waterways. Other pollutants may attach to sediment and be carried into stream.

Sedimentation – when soil particles (sediment) settle to the bottom of a waterway.

Septic Tank – a domestic wastewater treatment system into which wastes are piped directly from the home; bacteria decompose the organic waste, sludge settles to the

bottom of the tank, and the treated effluent flows out into the ground through drainage pipes.

Sheen – the glimmering effect that oil has on water as light is reflected more sharply off the surface.

Silviculture – forestry and the commercial farming of trees.

Slumping – sections of soil on a streambank that have come loose and slipped into the stream.

Stagnation – when there is little water movement and pollutants are trapped in the same area for a long period of time.

Submergent Plants – plants that live and grow fully submerged under the water.

Substrate – refers to a surface. The material comprising the streambed (mineral or organic material) that forms the bed (bottom) of a stream or the surfaces to which plants or animals may attach or upon which they live.

Surface Water – precipitation which does not soak into the ground or return to the atmosphere by evaporation or transpiration, and is stored in streams, lakes, wetlands, and reservoirs.

Taxon (plural taxa) – a level of classification within a scientific system that categorizes living organisms based on their physical characteristics.

Taxonomic key – a quick reference guide used to identify organisms. They are available in varying degrees of complexity and detail.

Thalweg – the line defining the lowest points along the length of a river bed or valley; the deepest part of the channel.

Tolerance – the ability to withstand a particular condition, e.g., pollution-tolerant indicates the ability to live in polluted waters.

Toxic Substances – poisonous matter (either man-made or natural) which causes sickness, disease and/or death to plants or animals.

Tributaries – a body of water that drains into another, typically larger, body of water.

Turbidity – murkiness or cloudiness of water, indicating the presence of some suspended sediments, dissolved solids, natural or man-made chemicals, algae, etc.

Undercutting – a type of erosion which occurs when fine soils are swept away by the action of the stream, especially around curves. The result is an unstable overhanging bank.

Vegetated Islands – a small islet or sandbar within a river having a grouping or thicket of trees.

Water Cycle – the cycle of the earth's water supply from the atmosphere to the earth and back which includes precipitation, transpiration, evaporation, runoff, infiltration, and storage in water bodies and groundwater.

Water Quality Criteria – maximum concentrations of pollutants that are acceptable, if those waters are to meet water quality standards. Listed in state water quality standards.

Water Quality Standards – written goals for state waters, established by each state and approved by EPA.

Watershed – land area from which water drains to a particular water body.

Water Table – the upper level of groundwater.

Waterway – a natural or man-made route for water to run through (such as a river, stream, creek, or channel).

Wetland – an area of land that is regularly wet or flooded, such as a marsh or swamp.

Georgia Adopt-A-Stream “Who to Call List”

Emergency Response 1-800-241-4113 or 404-656-4863

Use this number to report an emergency situation that is currently happening. Examples include fish kills, chemical, sewage or oil spills, illegal dumping in progress, poaching or anything that warrants immediate attention.

Non-Emergency Response 1-888-EPD-5947 or 404-657-5947

Use this number for non-emergency situations such as illegal dumping after the fact, buffer violations, sedimentation, or other impairments that warrant attention.

Georgia Adopt-A-Stream State Office 404-657-5947

Monday through Friday - 8:00 a.m. to 4:30 p.m.

Your phone call may be forwarded to a voicemail box, in this instance please review the notes below.

Your Local Contacts

Local Emergency Hotline _____ Local DNR Ranger _____
Local Health Department _____ Local EPD Office _____
Local Code Enforcement _____ Local AAS Coordinator _____

* Remember to get after hour numbers as well.

Please call Georgia Adopt-A-Stream and your local coordinator if you have reported a situation to one of the numbers above so that we are aware of the situation and can follow-up within the Environmental Protection Division.

Please remember to take detailed notes on the following:

- Exact location: address or GPS coordinates (more specific than ‘John Doe’s Farm’)
- Clear directions on how to get there
- Describe the nature of the issue
- Date and when the issue occurred or what time did it start
- Take a picture of the site
- If the conditions are safe, gather water quality data and a water sample in a sterile container

Important information to give to the operator:

- Your phone number first, so they can call you back if you are disconnected
- Request a call back if you wish to talk to an EPD officer, if you have not received a call within 1 hour, please call back and also report this to Adopt-A-Stream.
- Talk clearly and slowly

Other Useful Numbers

EPD Hazardous Waste Program (for illegal dumping)	404-656-7802
EPD Water Protection (responds to underground storage complaints)	404-362-2688
EPD Georgia Safe Dams Program (questions about dams)	404-362-2678
EPD Water Protection (modeling and monitoring of water quality)	404-675-6236
NonPoint Source Program (erosion, buffers, stormwater)	404-657-5947

EPD Regional Offices (for water quality questions, erosion & sedimentation problems)

Mountain District (Atlanta)	404-362-2671	Northeast District (Athens)	706-369-6376
Mountain District (Cartersville)	770-387-4900	Northeast District (Augusta)	706-792-7744
Middle GA District (Macon)	478-751-6612	Northwest District (Albany)	229-430-4144
Coastal District (Brunswick)	912-264-7284		

DNR Coastal Resource Division	912-264-7218
Georgia Wildlife Resources Division	770-918-6400
Endangered Species	912-994-1438
Georgia Cooperative Extension Service	706-542-3824
Georgia Forestry Commission	912-751-3500
Georgia Soil & Water Conservation Commission	706-542-3065

US NRCS	Regional	404-347-6105
	Clayton	770-473-5467
	Fulton	770-393-2849
	Gwinnett	770-963-9288
	Henry	770-957-5705
	Cobb	770-528-2218

EPA	Environmental Education	404-562-8327
	Lakes/Rivers/Streams	404-562-9355
	Wetlands Information	1-800-426-4791
	Wetlands/Oceans/Watersheds	404-562-9355

USGS Water Resources Division	770-409-7700
US Fish and Wildlife Service	404-679-7319
Army Corps of Engineers	678-422-2720
US Geological Survey	404-656-3214

For a complete list of EPD numbers look under "Contacts" at http://www.gaepd.org/Documents/wpb_phonelist.pdf