

Acronym	Name	Source	Website	One-Sentence Summary	Long Summary	Image	Image
WARSSS	Watershed Assessment of River Stability and Sediment Supply	Rosgen, D. 2007. Watershed Assessment of River Stability and Sediment Supply (WARSSS). Wildland Hydrology, Fort Collins, CO. 193 pp.	<a href="http://www.epa.gov/warss">http://www.epa.gov/warss</a>	The Rosgen Classification system developed by Dave Rosgen is easily the most widely applied river classification system used in the U.S. Its popularity is largely due to its codified nature, making it easy to learn for all levels of user within a limited amount of time (months) and money; and easy to apply uniformly (and repeat) across a range of natural systems.	A three-phase approach assesses suspended and bedload sediment to evaluate problems, develop sediment management plans and TMDLs, and more. Phase I uses remote-sensing and existing data to provide an overview of potential sediment sources throughout a watershed. Phase II also relies mostly on remote work, and incorporates land use, erosion potential, and connectivity to identify the level of risk of different areas. Phase III relies on field measurements of high risk areas to determine the extent of departure from a reference condition and provide the data necessary to inform process-based management plans.	<a href="http://water.epa.gov/scitech/data/ttools/warss/im/ages/warssnav.gif">http://water.epa.gov/scitech/data/ttools/warss/im/ages/warssnav.gif</a>	<a href="http://water.epa.gov/scitech/data/ttools/warss/upload/2005_8_31_watershed_tool_s_warss_fla_nachart.pdf">http://water.epa.gov/scitech/data/ttools/warss/upload/2005_8_31_watershed_tool_s_warss_fla_nachart.pdf</a>
VTSGA	Vermont Stream Geomorphic Assessment Protocol Handbooks	Kline, M., C. Alexander, S. Pomeroy, S. Jaquith, G. Springston, B. Cahoon, and L. Becker. Various Dates (2003, rev. 2004). Stream Geomorphic Assessment Protocol Handbooks. Vermont Agency of Natural Resources, Waterbury, VT.	<a href="http://www.anr.state.vt.us/dec/water/river/hvrm/ry_geoassessmentpro.htm">http://www.anr.state.vt.us/dec/water/river/hvrm/ry_geoassessmentpro.htm</a>	Vermont has one of the most comprehensive river and watershed management protocols in the country. River assessment tools are available to the public on the state Agency for Natural Resources, and are based on the fact that streams and rivers are adjusting to channel, flood plain, or watershed changes imposed in years past by human activity.	Designed for watershed planning, characterization of habitat, and erosion and flood hazards based on Schumm (1977), Rosgen (1994; 1996) and Montgomery and Buffington (1997) methods. Stream classification combined with a channel evolution model help produce a rating of the stream's susceptibility to disturbance. The key parameters are erodibility of channel banks, sediment and flow regime characteristics, confinement, and degree of departure from reference conditions. Like the WARSSS method, this has three phases. Phase I is based on remote-sensing and windshield surveys. Phase II includes qualitative field measurements, while Phase III requires quantitative surveying to inform restoration projects.	<a href="https://docs.google.com/file/d/0Bvu54rzhk5GUnA0REcvcGZU62s/edit">https://docs.google.com/file/d/0Bvu54rzhk5GUnA0REcvcGZU62s/edit</a>	<a href="http://www.watershedmanagement.vt.gov/river/docs/assessment/rv_a_pgmintro.pdf">http://www.watershedmanagement.vt.gov/river/docs/assessment/rv_a_pgmintro.pdf</a>
PSSW	Procedures for Sampling Surface Waters	ADEQ Surface Water Section. 2012. Standard Operating Procedures for Surface Water Quality Sampling, Arizona Jones, Jason D. (ed.) Phoenix, AZ.	<a href="http://www.azdeq.gov/environ/water/assessment/download/sampling.pdf">http://www.azdeq.gov/environ/water/assessment/download/sampling.pdf</a>	Detailed manual of stream assessment methods, based on Rosgen's WARSSS methodology. Focus is on water quality, rather than geomorphic stability.	Section 3, Part B, of the ADEQ Manual of Procedures for the Sampling of Surface Waters describes the details of geomorphic stream assessment. Derived directly from Rosgen, this assessment produces raw quantitative data as well as interpretive ratios and indices. The state's surface water sampling also includes a biological assessment that covers bacteria, diatoms, and macroinvertebrates, as well as a habitat assessment that covers chemistry, discharge, and general stream condition. The manual covers all aspects of an assessment, from prefield procedures and tool calibration to data management. Results are incorporated into a statewide water quality database and used to develop TMDLs for impaired bodies. No remote-sensing or watershed-scale work appears to be done.	<a href="http://www.prescottcreeks.org/files/prescottcreeks.org/files/image/cache/reg/image/sipartner/ADEQ%20Logo.JPG">http://www.prescottcreeks.org/files/prescottcreeks.org/files/image/cache/reg/image/sipartner/ADEQ%20Logo.JPG</a>	
ID BURP	Beneficial Use Reconnaissance Program	IDEQ. 2007. Beneficial Use Reconnaissance Program Field Manual for Streams. Idaho Department of Environmental Quality, Beneficial Use Reconnaissance Program Technical Advisory Committee, Boise, Idaho.	<a href="http://www.deq.state.id.us/water-quality/surface-water/monitoring/assessment/burp.aspx">http://www.deq.state.id.us/water-quality/surface-water/monitoring/assessment/burp.aspx</a>	Assessment method manual includes information on planning through follow-up reporting. Focus is on biological condition and habitat availability.	The BURP manual is divided into four phases: planning, preparing for field activities, field sampling, and follow-up reporting. Protocols are typically transect based. Results are used to support assessments of biological assemblages and physical habitat structure.	<a href="http://www.meridiancity.org/uploads/images/Departments/Fre/DEQ%20Logo.gif">http://www.meridiancity.org/uploads/images/Departments/Fre/DEQ%20Logo.gif</a>	<a href="https://docs.google.com/file/d/0Bvu54rzhk5GCU9mUePyaGlpN3c/edit">https://docs.google.com/file/d/0Bvu54rzhk5GCU9mUePyaGlpN3c/edit</a>
OR AIP	Aquatic Inventories Project	Moore, K., K. Jones, J. Dambacher, C. Stein, et al. 2008. Aquatic Inventories Project: Methods for Stream Habitat Surveys, Version 17.1, May 2008. Oregon Department of Fish and Wildlife, Aquatic Inventories Project, Conservation and Recovery Resources, Corvallis, OR.	<a href="http://library.state.or.us/repository/2010/201006240859254/index.pdf">http://library.state.or.us/repository/2010/201006240859254/index.pdf</a>	Habitat assessment protocol based on geomorphic features and their importance to habitat.	Aquatic Inventories projects identifies and quantifies valley and stream geomorphic features to provide quantitative information on habitat condition. The method consists of five sections: stream reach, unit-1, unit-2, wood, and riparian.	<a href="http://www.ammoland.com/wp-content/uploads/2009/08/Oregon-Department-of-Fish-and-Wildlife">http://www.ammoland.com/wp-content/uploads/2009/08/Oregon-Department-of-Fish-and-Wildlife</a>	
USFS SIH	Stream Inventory Handbook	USFS. 2009. Stream Inventory Handbook: Level I & II, Version 2.9. U.S. Forest Service, Pacific Northwest Region, Region 6	<a href="http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/nfs_stelordb384722.pdf">http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/nfs_stelordb384722.pdf</a>	A set of stream parameter inventory protocols designed to assist with watershed management activities. Protocols are flexible with regards to the subject of interest and level of detail used.	Designed specifically for the Pacific Northwest, this procedure is divided into watershed-scale, in-office work for Level I, and reach-scale field work for Level II. Level II parameters are measured in both pools and riffles.	<a href="https://docs.google.com/file/d/0Bvu54rzhk5GdWZpUWh1aFdnMUK/edit">https://docs.google.com/file/d/0Bvu54rzhk5GdWZpUWh1aFdnMUK/edit</a>	<a href="https://docs.google.com/file/d/0Bvu54rzhk5GdnhEQZaV9k9aU/edit">https://docs.google.com/file/d/0Bvu54rzhk5GdnhEQZaV9k9aU/edit</a>
USACE USM	Unified Stream Methodology	U.S. Army Corps of Engineers, Norfolk District and Virginia Department of Environmental Quality, January 2007	<a href="http://www.nor.usace.army.mil/Missions/Regulatory/UnifiedStreamMethodology.aspx">http://www.nor.usace.army.mil/Missions/Regulatory/UnifiedStreamMethodology.aspx</a>	One of many region-specific stream-assessment guidelines designed to determine the impacts of a project on stream health. Impacts are given scores, which must be offset by performing stream restoration work with an equivalent "mitigation credit" score. Focus is on habitat quality.	Compensatory Mitigation Assessments are used to determine the number of "mitigation credits" that must be earned in order to offset predicted stream-health impacts of proposed projects under the compensatory mitigation requirements of the Clean Water Act. CM guidelines are developed, and vary in focus, detail, and completeness, by regional USACE offices. Most involve scoring the channel's morphological condition, riparian buffer, in-stream habitat, and channel alteration, then multiplying that by the length of the assessed reach, in order to create a numerical index.	<a href="https://docs.google.com/file/d/0Bvu54rzhk5GdWZpUWh1aFdnMUK/edit">https://docs.google.com/file/d/0Bvu54rzhk5GdWZpUWh1aFdnMUK/edit</a>	<a href="https://docs.google.com/file/d/0Bvu54rzhk5GdWpMnZy5TzgtNkk/edit">https://docs.google.com/file/d/0Bvu54rzhk5GdWpMnZy5TzgtNkk/edit</a>
KDOW SRMG	Kentucky Stream Relocation/Mitigation Guidelines	KDOW. 2007. Draft Stream Relocation/Mitigation Guidelines, revised October 15, 2007. Kentucky Natural Resources and Environmental Protection Cabinet, Division of Water, Frankfort, KY.	<a href="http://water.ky.gov/permitting/List%20Working%20Streams%20and%20Wetlands/Attachments/5/DraftStreamMitigationGuidelines.pdf">http://water.ky.gov/permitting/List%20Working%20Streams%20and%20Wetlands/Attachments/5/DraftStreamMitigationGuidelines.pdf</a>	Provides procedures for assessment of channel stability and habitat quality impacts of near-stream construction, in order to inform mitigation efforts.	The Norfolk, VA regional USACE created the "Unified Stream" Provides detailed guidance on mitigation and assessment requirements for stream relocations and mitigation projects. Key data include longitudinal profiles for the impact reach, reference reach, and post-construction reach; planform information; and channel cross section information. Uses Harellson et al (1994) for surveying procedures and USEPA RBP (Barbour et al. 1999) for habitat assessment.	<a href="http://0.wp.com/kwalliance.org/wp-content/uploads/2014/03/waterlogo.jpg">http://0.wp.com/kwalliance.org/wp-content/uploads/2014/03/waterlogo.jpg</a>	<a href="http://transportation.ky.gov/Stormwater/PublishingImages/DEP-logo_140w_text.png">http://transportation.ky.gov/Stormwater/PublishingImages/DEP-logo_140w_text.png</a>
SEDG	Sediment Erosion and Design Guide	Mussetter Engineering, Inc. 2008. Sediment and Erosion Design Guide. Fort Collins, CO. Prepared for the Southern Sandow County Arroyo Flood Control Authority. Rio Rancho, NM	<a href="http://sasca.ca.org/development/docs/sediment_design_guide%20Design%20Guide%2012-30-08.pdf">http://sasca.ca.org/development/docs/sediment_design_guide%20Design%20Guide%2012-30-08.pdf</a>	A detailed overview of concepts of fluvial geomorphology, hydrology, and erosion. Includes references to a variety of erosion assessment and prediction methodologies. Includes a process for determining the Lateral Erosion Envelope (LEE) around arroyos - an area of high erosion risk.	This resource provides a wide range of information about geomorphology, hydrology, and sediment dynamics. One key aspect is a description of a methodology for delineating a Lateral Erosion Envelope (LEE) around intermittent degraded streams (arroyos). This method focuses on empirically derived bank retreat equations based on bank material and incision depths to create erosion hazard zones. Various methods for defining geomorphic parameters are suggested. The LEE product only includes surface areas.	<a href="https://drive.google.com/file/d/0Bvu54rzhk5GZ2dNkN5MzMu1u28/view?usp=sharing">https://drive.google.com/file/d/0Bvu54rzhk5GZ2dNkN5MzMu1u28/view?usp=sharing</a>	<a href="https://drive.google.com/file/d/0Bvu54rzhk5GZ2dNkN5MzMu1u28/view?usp=sharing">https://drive.google.com/file/d/0Bvu54rzhk5GZ2dNkN5MzMu1u28/view?usp=sharing</a>
GEEHZ	Guidance on Establishing an Erosion Hazard Zone	City of Austin Watershed Protection Department, 2013. Guidance on Establishing an Erosion Hazard Zone. Austin, TX.	<a href="http://austintexas.gov/qa/erosion-hazard-zone-criteria">http://austintexas.gov/qa/erosion-hazard-zone-criteria</a>	A guide for estimating erosion hazard zones at specific sites adjacent to arroyos in the city of Austin, Texas.	Designed by the city of Austin to prevent development or improvement of property within erosion hazard zones. The protocol contains two levels of assessment, a simple and conservative Level 1 assessment and a more detailed Level 2 assessment when the Level 1 results are determined to be too conservative. The delineated EHZ covers the surface and subsurface, is based on potential future channel incision, and accounts for channel migration within the active meander belt.	<a href="https://drive.google.com/open?id=0Bvu54rzhk5GSDZuX8WVW3Xz2dDQ&amp;authuser=0">https://drive.google.com/open?id=0Bvu54rzhk5GSDZuX8WVW3Xz2dDQ&amp;authuser=0</a>	<a href="https://drive.google.com/open?id=0Bvu54rzhk5GSDZuX8WVW3Xz2dDQ&amp;authuser=0">https://drive.google.com/open?id=0Bvu54rzhk5GSDZuX8WVW3Xz2dDQ&amp;authuser=0</a>
RBP	Rapid Bioassessment Protocol	EPA, Plafkin et al 1989, Barbour					
QHEU	Qualitative Habitat Evaluation Index	Rankin 1989					
Montgomery Buffington		Montgomery, D. R. and J. M. Buffington. 1998. Channel Processes, Classification, and Response., 13-42			Utilizes energy and mass-balance equations to relate water and sediment flow to geomorphic parameters. Parameters are used to differentiate types of reaches, and to assess condition and disturbance response. Use of remote sensing is encouraged.		
RSF	River Styles Framework	Brierley, G. and K. Fryirs. 2000. River Styles, a Geomorphic Approach to Catchment Characterization: Implications for River Rehabilitation in Bega Catchment, New South Wales, Australia. Environmental Management, 25(6), 661-679			Divides river into Geomorphic Process Zones based on sediment dynamics. Present and historical geomorphic attributes are assessed at multiple spatial scales. River health is analyzed against a theoretical reference river, but remediation work aims for a best-possible "sustainable river."		

<b>RHS</b>	<b>River Habitat Survey</b>	The RHS Team, 2003. River Habitat Survey in Britain and Ireland: Field Survey Guidance Manual, 2003 version			Field-based and designed non-experts, assesses physical structure primarily for ecological and habitat purposes. Conforms to the classification and assessment requirements set forth by the European Water Framework Directive.		
<b>MQI</b>	<b>Morphological Quality Index</b>	Rinaldi, M., et al. 2012. A method for the assessment and analysis of the hydromorphological condition of Italian streams: The Morphological Quality Index (MQI).			Italian response to the EU WFD. Assesses habitat based on 28 indicators of continuity, morphology, and vegetation quality compared to a pristine reference reach. Has a more intensive pre-fieldwork, remote-sensing phase than the RHS.		