SWQM Procedures Manual Interim Change Summary—01/06/2015

RG-415 08/2012 Edition

Chapter	Page	Section	Date	Change	Reason
				Interim Change Documents	
3	3-15	**Other Field Observations**	9/18/2012	ADD A new section to follow "Flow Severity". See *Interim Change Document #01-2012_V1* for the "Primary Contact Recreation—Parameter Codes 89978 and 89979" text.	Added at the request of Water Quality Standards Development; new recreational use parameter codes
3	3-1	**Recording Field Data**	11/28/2012	ADD Example field data form.	To illustrate field data recording section
8	8-2	**Temperature-Sensor Check**	10/23/2012	ADD A new procedure to checking the multiprobe temperature sensor using a digital thermometer. See *Interim Change Document #02-2012_Vol 1*.	Added new procedure
8	8-25	**General Maintenance—YSI Multiprobes-DO Probe (Optical)**	11/28/2012	ADD New information added on requirement to change optical dissolved oxygen membranes annually and instructions on entering calibration and temperature coefficients. See *Interim Change Document #03-2012_Vol 1*.	Required for appropriate maintenance of YSI optical DO membranes
8	8-29 & 8/30	**Calibration Logs**	05/23/2013	ERRATA-ADD Remove pages 8-29 and 8-30 from manual. These are duplicates. Replace with *Interim Change Document #01-2013_Vol 1*. This adds Figure 8.5 *Hydrolab Multiprobe calibration and maintenance Log* and Table 8.3 *pH-calibration standards*.	Pages left out of manual during printing
2	2-12	**Invasive Aquatic Species Equipment Cleaning Guidelines**	**11/01/2013**	**ADD** Methods for cleaning procedures for boats, trailers, and equipment to prevent the spread of invasive plant and animal species. **See *Interim Change Document #02-2013_Vol. 1***	Methods for compliance with Chapter 66 of Parks and Wildlife Code— removal of invasive species.

SWQM Procedures Manual Interim Change Summary—01/06/2015

RG-415 08/2012 Edition

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8	8-30	***Interim Change Document #01-2013_Vol 1.***	**5/1/2014**	**CORRECTION** Change Table 8.3 pH calibration standards to Table 8.4	Error when pages were left out of manual during printing; incorrect Table number
10	10-5	**Summary of Quality-Control Sampling**	**5/1/2014**	**DELETE** Removing the requirement for Field Splits associated with routine water chemistry samples. Field Splits are now optional. **See *Interim Change Document #01-2014_Vol. 1***	Field splits do not contribute to overall accuracy, replicate the sampling process (bucket vs. in-situ) or extrapolate to other samples.
3	3-15	**Other Field Observations**	**1/06/2015**	**CORRECTION** **1st paragraph, after last sentence** The following observations should be added to routine water quality monitoring site visits. **Record a value for each parameter code during each site visit.** **3rd paragraph, last sentence** ~~**Do not report "1" if the same item(s) are observed during repeat visits to the site.**~~ **See *Interim Change Document #01-2012_V1* for the "Primary Contact Recreation—Parameter Codes 89978 and 89979".**	Corrected for clarification by the Water Quality Standards Development
3	3-6	**Unattended Data Collection – Dissolved Oxygen**	**2/27/2015**	**CORRECTION** ***When to Take Measurements*** Twenty-four-hour DO monitoring events can be conducted year-round. To ensure unbiased, seasonally representative data, samples are allocated to various times of the year **over a period of at least two years according to the following temporal distribution:** ~~Collect one-half to two-thirds of the samples during the~~	Corrected for clarification

Chapter	Page	Section	Date	Change	Reason
				~~*index period* representing warm-weather seasons of the year, March 15–October 15 (Figure 3.1). Of the total allocated to the index period a subset of the samples are to be collected during the *critical period* of the year (July 1–September 30)—when minimum streamflows, maximum temperatures, and minimum DO concentrations typically occur in Texas streams. Collect a minimum of one-fourth to a maximum of one-third of the samples (allocated to the index period) during the critical period. The remainder of the samples can be collected outside the index period~~. • **20% of the total number of 24-Hour DO samples collected during the critical portion of the index period (July 1 - September 30);** • **33.3 - 40% of the total number of 24-Hour DO samples collected during the non-critical portion of the index period (March 15 – June 30, and October 1- October 15);** • **33.3 - 50% of the total number of 24-Hour monitoring events in the non-index period (October 16 - March 14).** **This results in approximately 50 – 66.7% of the total number of 24-hour monitoring events collected over at least two years during the index period (March 15 – October 15), and 33.3 – 50% of 24-hour monitoring events in the non-index period (October 16 – March 14). NOTE: Approximately one month must separate each 24-hour sampling event. The minimum number of samples collected in a year is two—one within the index period and one within the critical period**. See Table 3.1 for an example of the temporal distribution of ten 24-hour dissolved oxygen (DO)	

SWQM Procedures Manual Interim Change Summary—01/06/2015 *RG-415 08/2012 Edition*					
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				monitoring events collected over a two year period. Data collectors can adjust the months in which samples are collected, as long as there is at least a month between sample events, and the proportions of sample events in each period remain consistent with guidance. **See *Interim Change Document #02-2015_V1* for "24hr DO Monitoring".**	

SWQM Procedures Manual Interim Change Summary—01/06/2015

RG-415 08/2012 Edition

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Minor Changes and Additions					
3	3-1	**Recording Field Data**	09/18/012	ADD Bulleted list under "For each visit to an individual station where field measurements and samples are collected, record the following: ■ observations, including recreation data.	New recreational use parameter codes for observed primary contact recreation activities (89978) and evidence (89979).
3	3-2	**Recording Field Observations**	09/18/2012	ADD Sentence added to the end of the 1st paragraph; Record the number of individuals engaging in primary contact recreation, as well as presence or absence of evidence indicating primary contact recreation. See "Other Observations—Primary Contact Recreation."	New recreational use parameter codes for observed primary contact recreation activities (89978) and evidence (89979).
3	3-16	**Table 3.1-Final Format for Reporting Field Data**	09/18/2012	ADD to Table **Parameter: Primary contact recreation** (number of people observed) **Parameter Code**: 89978 **Final Form for Field Data**: Report number of individuals engaging in primary recreation activity. Report whole numbers from *0* through*10*. If there are more than ten people observed, report *>10* (example, a popular swimming hole).	New recreational use parameter codes for observed primary contact recreation activities (89978) and evidence (89979).

SWQM Procedures Manual Interim Change Summary—01/06/2015

RG-415 08/2012 Edition

Chapter	Page	Section	Date	Change	Reason
3	3-16	**Table 3.1-Final Format for Reporting Field Data**	09/18/2012	ADD to Table **Parameter: Primary contact recreation** (evidence of activity) **Parameter Code**: 89979 **Final Form for Field Data**: Report *0* when evidence is not observed. Report *1* when even a single item indicating primary contact recreation is observed. Do not report *1* if the same item(s) are observed during repeat visits to the site.	New recreational use parameter codes for observed primary contact recreation activities (89978) and evidence (89979).
3	3-13	**Secchi Tube**	12/18/2012	**CORRECTION** 4. Record the depth of the water in meters. If the symbol is visible when the tube is full, the transparency reading is greater than ~~0.60~~ **1.2 meters**.	Corrected typo.
3	3-10	**Salinity-Procedures for Sampling**	**5/1/2014**	**DELETE** ~~"Report values less than 2.0 ppth as "<2.0 ppth" rather than the actual value."~~	Ability to enter or download coastal data for projects and get actual numbers and not < values.
3	3-16	**Table 3.1—Final Format for Reporting Field Data**	**5/1/2014**	**DELETE** Report salinity values ~~**above 2.0 ppth**~~ to the nearest tenth in parts per thousand. In estuarine waters report the actual values displayed by the instrument ~~**above 2.0 ppth, and values less than 2.0 (examples: 0.85 to < 2.0; 1.5 to < 2.0)**~~.	Ability to enter or download coastal data for projects and get actual numbers and not < values.
4	4-3	**Sample Collection**	**5/1/2014**	**Flowing streams.** 3rd sentence. **CHANGE** "With the open end facing upstream, push the mouth of the ~~bag~~ **bottle** upstream… ."	Corrected error.
4	4-3	**Sample Collection**	**5/1/2014**	**Flowing streams.** 3rd sentence. **CHANGE** "With the open end facing upstream, push the mouth of the ~~bag~~ **bottle** upstream… ."	Corrected error.

SWQM Procedures Manual Interim Change Summary—01/06/2015

RG-415 08/2012 Edition

<table>
<tr><th>Chapter</th><th>Page</th><th>Section</th><th>Date</th><th>Change</th><th>Reason</th></tr>
<tr><td>4</td><td>4-4</td><td>Sample Holding Time</td><td>5/1/2014</td><td>2nd paragraph, 4th sentence; CHANGE
“When transport condition cause delays in sample preparation longer than 8 hours, the holding time may be extended up to ~~48~~ 30 hours for E. coli.</td><td>Corrected to reflect EPA approval of extended 30 hour holding time</td></tr>
<tr><td>4</td><td>4-5</td><td>Sample Holding Time</td><td>5/1/2014</td><td>CHANGE<table><tr><th>Bacteria Sample</th><th>Holding Time</th></tr><tr><td>E. coli</td><td>up to ~~48~~ 30 hours</td></tr><tr><td>Enterococci</td><td>up to 8 hours</td></tr><tr><td>Fecal coliform</td><td>up to 8 hours</td></tr></table></td><td>Corrected to reflect EPA approval of extended 30 hour holding time</td></tr>
<tr><td>5</td><td>5-5</td><td>Field QC Samples</td><td>5/1/2014</td><td>DELETE
~~Field QC Samples
Field splits (FS) are collected with every 10th conventional water sample. If fewer than 10 samples are collected in a month, submit one set of field splits for that month. Field blanks are not routinely required but may be inserted into the sample regime if needed for a specific reason. Submit QC sample results for field splits are submitted to the TCEQ for storage in SWQMIS using the monitoring type code “FS.” See Chapter 10 for detailed information on field QC samples.~~</td><td>Removing routine field splits</td></tr>
<tr><td>5</td><td>5-22</td><td>Table 5.3. Summary of quality-control samples for water</td><td>7/7/2014</td><td>~~DELETE
• Field splits represent variability introduced during preservation and handling and at the lab. Submit field splits with every 10th sample. If fewer than 10 samples are collected in a month, submit one set of splits for that month. This requirement applies to conventional water samples only.
• Collect two sets of conventional water samples from the same ambient water sample, using the same method. Use identical procedures in handling, storing, shipping, and analyzing samples. This applies to all cases of routine surface water collection procedures, including instream grab samples, bucket grab samples from bridges, pumps, and other water sampling devices.
Each set of samples is to have a separate tag number. Submit both sets of water samples to the same lab for analysis.~~</td><td>Removing routine field splits</td></tr>
</table>

SWQM Procedures Manual Interim Change Summary—01/06/2015

RG-415 08/2012 Edition

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8	8-5	**Reporting Salinity**	5/1/2014	**DELETE** To report salinity values ~~**at ≥ 2**~~ select the specific conductance function….	Ability to enter or download coastal data for projects and get actual numbers and not < values.
8	8-6	**Hydrolab pH Sensor**	5/1/2014	**4th bullet under *pH Sensor* section; CORRECT See Table 8.3 to Table 8.4**	Corrected typo.
8	8-11	**YSI pH Sensor**	5/1/2014	**2nd bullet under *pH Two-Point Calibration, pH 7* section; CORRECT See Table 8.3 to Table 8.4**	Corrected typo.
8	8-11	**YSI pH Sensor**	5/1/2014	**3rd bullet under *pH Two-Point Calibration, pH 4 or 10* section; CORRECT See Table 8.3 to Table 8.4**	Corrected typo.
4	4-3	**Sample Labeling**	7/2/2014	**CORRECTION-ADD** Label each sample with the station number, **sample tag number**, date, and time collected.	Corrected oversight.
4	4-4	**Quality-Control Samples**	7/7/2014	**CORRECTION** Collect one large sample (>200 mL) at ~~the same time you collect field splits for other parameters~~ **a frequency of one per 10 samples or one per month (<10 samples).**	Correction associated with removing routine field splits
5	5-4	**Sample Containers and Volumes**	7/7/2014	**ADD** **2nd paragraph, after last sentence.** Collect the chlorophyll a sample in a wide-mouth amber bottle or place the container in an amber-colored plastic bag. **Label the amber bag with the same information as the sample container. This keeps the lab from opening the bag prior to sample processing.**	Added for clarification.

SWQM Procedures Manual Interim Change Summary—01/06/2015

RG-415 08/2012 Edition

Chapter	Page	Section	Date	Change	Reason
5, 6, 7	5-17, 6-6, 7-9	**Handling and Shipping Samples**	7/7/2014	**CORRECTION** **1st paragraph, 2nd sentence.** Due to increased shipping restrictions, samples being sent via a freight carrier ~~may~~ require additional packing. **Add fresh ice before shipping. Secure the drain hole.** **1st paragraph, last sentence.** ~~Some shipping companies, depending on the location, may require this extra step before shipping ice chests.~~	Corrected for clarification.
8	8-2	**Temperature Sensor Check**	1/06/2015	**CORRECTION** Check the temperature-sensor accuracy during routine instrument maintenance ~~at least once a month~~ **—every two months or 15 field trips.**	Corrected inconsistency between temperature-sensor check and routine maintenance frequencies
3	3-6	**Unattended Data Collection – Dissolved Oxygen**	2/27/2015	**CORRECTION** ***When to Take Measurements*** Twenty-four-hour DO monitoring events can be conducted year-round. To ensure unbiased, seasonally representative data, samples are allocated to various times of the year **over a period of at least two years according to the following temporal distribution:** ~~Collect one-half to two-thirds of the samples during the *index period* representing warm-weather seasons of the year, March 15–October 15 (Figure 3.1). Of the total allocated to the index period a subset of the samples are to be collected during the *critical period* of the year (July 1–September 30)—when minimum streamflows, maximum temperatures, and minimum DO concentrations typically occur in Texas streams. Collect a~~	Corrected for clarification

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Send comments to Robin Cypher; robin.cypher@tceq.texas.gov; all interim change documents can be found online at <http://www.tceq.texas.gov/waterquality/monitoring/swqm_manualupdate.html>.