

BIOSOLIDS EMS MANUAL

ISSUE LOG



REVISION	ISSUE DATE	REVISION DESCRIPTION
Introduction		
09	03/31/2020	Update to the Anaerobic Digestion/Stabilization, Biosolids Beneficial Reuse, and Energy Recovery/Recycling sections
08	10/02/2018	Added Peak Flow Storage Basin and Chlorine Dioxide sections, updated all other sections for content and typos
07	08/04/2016	Added ferric chloride information, changed layout
06	10/06/2014	Updated to reflect change from Class A to Class AB biosolids
05	08/05/2013	Updated document, added high strength waste, HRSO, reclaimed water
04	06/15/2011	Update Document
03	09/23/2010	Update Document
02	05/15/2008	Audit (YR2) 2007
01	11/29/2004	2004 Issue

REVISION	ISSUE DATE	REVISION DESCRIPTION
Element 1.0 Documentation of EMS for Biosolids		
11	03/31/2020	Update to EMS Manual Locations section
10	09/21/2018	Update to Responsibility, History & Background, and Reference sections
09	12/04/2015	Merged element to new format, added figure.
08	08/05/2013	Updated references and attachment list, added cross reference table to EMS manual content
07	07/29/2011	Update EMS manual locations
06	01/26/2011	Correct typographical error
05	11/16/2010	Update responsibilities & references. Moved approval & review criteria for the EMS Manual to Element 12.0
04	05/15/2008	Audit (YR2) 2007
03	06/29/2007	Audit (YR1) 2006
02	11/29/2004	2004 Issue
01.a	10/18/2004	Internal Audit Revisions
01	10/01/2004	Approval Draft
SR	01/30/2004	Issued for Status Review

REVISION	ISSUE DATE	REVISION DESCRIPTION
Element 2.0 Biosolids Policy		
08	09/23/2020	Typo Correction
07	09/21/2018	Update to Procedure and References Sections, addition of new Biosolids Policy
06	09/10/2015	Converted element to new format, added updated Biosolids Policy
05	08/05/2013	Updated references
04	11/16/2010	Update References
03	06/29/2007	Audit (YR1) 2006
02	11/29/2004	2004 Issue
01	10/01/2004	Approval Draft
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REVISION	ISSUE DATE	REVISION DESCRIPTION
Element 3.0 Critical Control Points		
15	10-14-2020	Updated Critical Control Points Master Table
14	03/31/2020	Update to Figure 3.2, removed references to specific dewatering facility contractor (biosolids contractor) Renda Environmental Inc. (REI) and contractor operation of turbine generators for the energy system at VCWRF – EMS Master Table
13	09/27/2018	Update to Procedure section, update to Critical Control Points Master Table
12	01/04/2017	Updated Critical Control Points-EMS Master Table
11	08/04/2016	Merged element to new format, updated review criteria, updated Critical Control Points table
10	10/06/2014	Updated Biosolids Value Chain graphic, updated Critical Control Points table
09	08/05/2013	Updated references, updated Critical Control Points--EMS Master Table
08	07/29/2011	Update Critical Control Points--EMS Master Table, correct typographical errors
07	06/13/2011	Update Critical Control Points--EMS Master Table
06	01/26/2011	Correct typographical error
05	11/16/2010	Update References
04	05/15/2008	Audit (YR2) 2007
03	06/29/2007	Audit (YR1) 2006
02	11/29/2004	2004 Issue
01.a	10/18/2004	Internal Audit Revisions
01	10/01/2004	Approval Draft
SR	01/30/2004	Issued for Status Review

REVISION	ISSUE DATE	REVISION DESCRIPTION
Element 4.0 Legal and other Requirements		
14	10/06/2021	Update to Purpose, Procedure, Responsibility, Revision and Cross Reference Sections and Table 4.1- (Approval Letter to Renda for use of Var. #1 removed)
13	09/25/2018	Update to Procedure and Responsibility sections and Table 4.1
12	08/02/2017	Updated legal table, updated references
11	08/01/2016	Updated revision procedures, updated legal table
10	10/30/2015	Updated procedure, updated legal table, converted element to new format
09	10/06/2014	Included information regarding new classification (Class AB)
08	07/30/2014	Updated Element 4.0 table
07	08/05/2013	Updated references, included time frame for Element 4.0 table update/review, updated Element 4.0 table
06	07/29/2011	Update regulations and links in attached table
05	11/16/2010	Update responsibilities, references, and table
04	05/15/2008	Audit (YR2) 2007
03	06/29/2007	Audit (YR1) 2006
02	11/29/2004	2004 Issue

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01.a	10/18/2004	Internal Audit Revisions
01	10/01/2004	Draft Issue
SR	01/30/2004	Issued for Status Review

REVISION	ISSUE DATE	REVISION DESCRIPTION
<i>Element 5.0 Biosolids Goals and Objectives</i>		
17	12/10/2020	Revised the Purpose, Procedure, Review and Update sections, Revised Figure 5.2, replaced the CAP List with the Miscellaneous Project List, added MPL information section.
16	10/14/2019	Modified update provisions to include information on CAP List and clarified language Figure 5-2.
15	09/21/2018	Update to Responsibility, Procedure, and References sections; addition of Biosolids Value Chain figure
14	08/03/2016	Merged element to new format design, updated Biosolids Policy, updated Review and Update procedures.
13	01/06/2014	Update to Procedure and Proactive Public Participation sections, included Public Outreach Feedback Evaluation Form.
12	08/05/2013	Updated references
11	07/29/2011	Added Public Participation information, fixed typographical errors, revise goals and objectives
10	02/28/2011	Quarterly update for Appendix 5a (no change to procedures)
09	11/16/2010	Update responsibilities, review criteria for goals & objectives and references. Update goals and targets.
08	09/23/2010	Update Goals & Targets
07	04/08/2009	2008 Management Review (Revision - Appendix 5a)
06	09/07/2008	Audit (YR3) 2008
05	05/15/2008	Audit (YR2) 2007
04	06/29/2007	Audit (YR1) 2006
03	05/10/2006	Goal Revisions from 2005 Management Review
02	05/26/2005	3rd Party Audit Phase I Revisions
01.a	11/29/2004	2004 Issue
01	10/01/2004	Draft Issue
SR	01/03/2004	Issued for Status Review

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REVISION	ISSUE DATE	REVISION DESCRIPTION
<i>Element 6.0 Public Participation in Planning</i>		
15	10/06/2021	Update to all sections including attachments, updated and moved Notification of Land Application Activities section to Element 13.0, removed Notification of Land Application to Local Officials Form
14	10-14-2020	Update to Audit Notification and Attachments sections
13	05-06-2020	Correction of typographical errors
12	03/31/2020	Update to reflect current program status & change in biosolids contractors
11	09/26/2018	Update to Procedure and References sections
10	08/01/2016	Merged element to new format
09	10/06/2014	Updated links, referenced BSLD 02.001 SOP, updated attachments
08	01/06/2014	Include criteria for input from regulators.
07	08/05/2013	Updated public participation activities table, added audit notification procedure, added notification to local officials procedure, updated references, created attachments list
06	08/11/2011	Updates to public participation and typographical errors
05	01/07/2011	Update outreach procedures
04	05/15/2008	Audit (YR2) 2007
03	06/29/2007	Audit (YR1) 2006
02	11/29/2004	2004 Issue
01	10/01/2004	Approval Draft
SR	01/30/2004	Issued for Status Review

REVISION	ISSUE DATE	REVISION DESCRIPTION
<i>Element 7.0 Roles and Responsibilities</i>		
14	10/06/2021	Update to Purpose, Scope, Key Words and Responsibility and Cross Reference Sections
13	11/02/2020	Update to Table 7.1
12	09/27/2018	Update to Procedure and Responsibility sections, update to Figures 7.1, 7.2 and Table 7.1
11	08/02/2017	Updated procedure to include note regarding vacant positions
10	01/19/2017	Included Contractor role under 'Responsibility' section, updated references
09	08/03/2016	Merged element to new format, updated organizational charts, updated Table 7.1
08	08/05/2013	Updated references, reformatted Table 1
07	08/11/2011	Added EMS Coordinator position, updates Table 1
06	11/16/2010	Update responsibilities, references, and Table 1
05	09/23/2010	Update management team and org charts
04	05/15/2008	Audit (YR2) 2007
03	06/29/2007	Audit (YR1) 2006
02	11/29/2004	2004 Issue
01	10/01/2004	Approval Draft
SR	01/30/2004	Issued for Status Review

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REVISION	ISSUE DATE	REVISION DESCRIPTION
<i>Element 8.0 Training</i>		
12	07/22/2020	Update to VCWRF Safety Meetings and Biosolids Newsletter sections
11	09/21/2018	Update to Responsibility, State Mandated Training, and EMS Training sections
10	09/27/2017	Updated procedure, updated references
09	08/01/2016	Merged element to new EMS format, changes to procedure
08	10/06/2014	Updated links
07	02/17/2014	Updated EMS Training section, updated references.
06	08/05/2013	Updated references
05	11/16/2010	Update responsibilities and references
04	05/15/2008	Audit (YR2) 2007
03	06/29/2007	Audit (YR1) 2006
02	11/29/2004	2004 Issue
01	10/01/2004	Approval Draft
SR	01/30/2004	Issued for Status Review

REVISION	ISSUE DATE	REVISION DESCRIPTION
<i>Element 9.0 Communication & Public Outreach</i>		
16	10/06/2021	Update to Purpose, Responsibility, Procedure, Internal and External Communication, Regulatory Communication, Public Outreach and Attachment sections, removed Field Observation Report Forms and Close-out Site Visit Form
15	10/15/2020	Update to Public Outreach Program and Attachment sections
14	03/31/2020	Update to Procedure section
13	09/26/2018	Update to Responsibility and Procedure sections
12	08/03/2016	Merged element to new format, updated Public Outreach Program, updated attachments
11	10/06/2014	Referred to SOPs BSLD 07.001 and 07.002 under Biosolids Complaints and Requests for Information section.
10	02/17/2014	Procedure updated to include new biosolids@fortworthtexas.gov address, emailed complaint information, and reference to environmental health and safety info. on the City's webpage.
09	10/03/2013	Updated City and Contractor Communication and complaint procedure
08	08/05/2013	Updated references, included an attachments list
07	02/08/2012	Update internal communication procedures
06	07/29/2011	Update public participation program, typographical errors and internal/external communication
05	11/16/2010	Update responsibilities, references, as well as procedures in Appendix 9a
04	05/15/2008	Audit (YR2) 2007
03	06/29/2007	Audit (YR1) 2006
02	11/29/2004	2004 Issue
01	10/01/2004	Approval Draft
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REVISION	ISSUE DATE	REVISION DESCRIPTION
<i>Element 10.0 Operation Control of Critical Control Points</i>		
12	10/06/2021	Update To All Sections Except Review, References and Cross References Sections
11	09/21/2018	Update to Procedure and References sections
10	08/03/2016	Merged element to new EMS format, included Maximo software under Procedure
09	10/06/2014	Updated links
08	10/11/2013	Updated SOP list
07	08/05/2013	Updated references
06	04/18/2012	Update procedures
05	11/16/2010	Review critical control points. Update references & definition of EMS Management Team
04	05/15/2008	Audit (YR2) 2007
03	06/29/2007	Audit (YR1) 2006
02	11/29/2004	2004 Issue
01.a	10/18/2004	Internal Audit Revisions
01	10/01/2004	Approval Draft
SR	01/30/2004	Issued for Status Review

REVISION	ISSUE DATE	REVISION DESCRIPTION
<i>Element 11.0 Emergency Preparedness and Response</i>		
12	10/06/2021	Update To Responsibility and Procedure Sections
11	03/31/2020	Update to Attachments section and Table 11.1
10	09/21/2018	Update to Responsibility section and Table 11.1
09	09/25/2017	Updated procedure and Emergency Preparedness and Response table
08	08/03/2016	Merged element to new format
07	08/05/2013	Updated references, added attachments list
06	07/29/2011	Update based on changes to Emergency Response SOP, correct typographical errors and update dates
05	05/15/2008	Audit (YR2) 2007
04	06/29/2007	Audit (YR1) 2006
03	05/26/2005	3rd Party Audit Phase I Revisions
02	11/29/2004	2004 Issue
01	10/01/2004	Approval Draft
SR	01/30/2004	Issued for Status Review

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REVISION	ISSUE DATE	REVISION DESCRIPTION
<i>Element 12.0 EMS Documentation and Document Control</i>		
12	03/31/2020	Updated the Procedures section and Master List Table
11	09/26/2018	Addition of instructions for obsolete documents
10	08/02/2017	Updated approval procedure regarding vacant positions, updated references, and corrected revision numbers
09	08/03/2016	Merged element to new format, updated TPDES table, updated Master table
08	10/06/2014	Updated Level 4 Documentation Master list table and Level 3 Document information
07	08/5/2013	Updated references, updated Level 4 Documentation Master List Table
06	07/29/2011	Update Level 2 document control procedures
05	11/16/2010	Update responsibilities, references, and criteria for document creation, review, modification, approval, and control
04	09/23/2010	Update Level 4 Documents
03	06/29/2007	Audit (YR1) 2006
02	11/29/2004	2004 Issue
01	10/01/2004	Approval Draft
SR	01/30/2004	Issued for Status Review

REVISION	ISSUE DATE	REVISION DESCRIPTION
<i>Element 13.0 Monitoring and Measurement</i>		
13	10/06/2021	Added Notification of Land Application Activities section, updated attachments section
12	09/21/2018	Update to References section
11	07/26/2014	Reference to Odor Control Plan and Adverse Weather and Alternative Plan added, updates to procedures.
10	10/06/2014	Referenced biosolids SOPs in Process Monitoring and Land Application Monitoring sections
09	08/05/2013	Updated references and procedure, added attachments list
08	04/18/2012	Update procedures
07	11/16/2010	Update responsibilities, references, and procedures for goals & objectives
06	07/20/2009	Updated (Appendix 13b) Daily Process Worksheets
05	05/15/2008	Audit (YR2) 2007
04	06/29/2007	Audit (YR1) 2006
03	07/08/2005	Revised Biosolids Goals Tracking Procedure per Phase II Audit
02	11/29/2004	2004 Issue
01	10/01/2004	Approval Draft
SR	01/30/2004	Issued for Status Review

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REVISION	ISSUE DATE	REVISION DESCRIPTION
<i>Element 14.0 Nonconformance: Preventative and Corrective Action</i>		
15	10/06/2021	Revised the Responsibility and Procedure Sections
14	12/10/2020	Revised the Purpose, Scope, Procedure And Cross Reference Sections
13	03/31/2020	Update to Tracking Corrective Action Notice Progress section
12	10/14/2019	Updated CAP criteria
11	09/21/2018	Update to Responsibility section
10	09/27/2017	Updated procedure, updated references
09	07/29/2016	Merged element to new EMS format and updated procedure, updated CAN form, created CAN Review Sheet for CAN binder
08	10/06/2014	Updated information regarding evaluation of CANs during internal audits
07	08/05/2013	Updated references, included attachment list, updated Corrective Action Notice form
06	07/29/2011	Correct typographical errors and update procedures
05	11/16/2010	Update responsibilities and references
04	05/15/2008	Audit (YR2) 2007
03	06/29/2007	Audit (YR1) 2006
02	11/29/2004	2004 Issue
01	10/01/2004	Approval Draft
SR	01/30/2004	Issued for Status Review

REVISION	ISSUE DATE	REVISION DESCRIPTION
<i>Element 15.0 Biosolids Program and EMS Performance Report</i>		
09	09/21/2018	Update to Procedure and References section
08	08/01/2016	Merged element to new EMS format, updated links
07	08/05/2013	Updated references and procedure
06	08/11/2011	Update procedure and references
05	11/16/2010	Update references
04	05/15/2008	Audit (YR2) 2007
03	06/29/2007	Audit (YR1) 2006
02	11/29/2004	2004 Issue
01	10/01/2004	Approval Draft
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REVISION	ISSUE DATE	REVISION DESCRIPTION
Element 16.0 Internal EMS Audit		
15	12/10/2020	Added The Audit System and Upcoming Audit Notification sections; Revised Preventive Measures & Recommended Solution, Third Party Audit Results, Corrective Action Notices, Procedure and References sections, and Audit Schedule Table
14	09/21/2018	Update to Procedure and References sections
13	08/02/2016	Merged element to new format, updated audit schedule (Table 16.1)
12	10/06/2014	Revised internal audit procedure to include evaluation of CANs
11	01/06/2014	Revise audit procedures in response to CAN 2013-16
10	08/26/2013	Update internal audit procedures in response to CAN 2013-05
09	08/05/2013	Updated references, procedures regarding pre-interim audits and audit report and findings, updated Table 1
08	07/29/2011	Update Table 1
07	06/10/2011	Clarify interim and pre-interim audit requirements
06	11/16/2010	Update references and procedures (interim & internal)
05	06/29/2007	Audit (YR1) 2006
04	05/10/2006	Auditor revisions according to Management Review
03	05/26/2005	3rd Party Audit Phase I Revisions
02	11/29/2004	2004 Issue
01	10/01/2004	Approval Draft
SR	01/30/2004	Issued for Status Review

REVISION	ISSUE DATE	REVISION DESCRIPTION
Element 17.0 Periodic Management Review of Performance		
09	09/21/2018	Update to Responsibility and References sections
08	08/01/2016	Merged element to new EMS format
07	08/05/2013	Updated procedures and references
06	10/07/2011	Update discussion points, addition of EMS Coordinator and correct typographical errors
05	11/16/2010	Update references and responsibilities
04	05/15/2008	Audit (YR2) 2007
03	06/29/2007	Audit (YR1) 2006
02	11/29/2004	2004 Issue
01.a	10/18/2004	Internal Audit Revisions
01	10/01/2004	Approval Draft
SR	01/30/2004	Issued for Status Review

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REVISION	ISSUE DATE	REVISION DESCRIPTION
<i>EMS Planning Schedule</i>		
13	12/10/2020	Changed CAP List to the Miscellaneous Project (MPL) List each quarter
12	09/21/2018	Addition of CAP review to each quarter
11	07/29/2016	Revised table to reflect recent revisions to program
10	06/16/2016	Revised table to reflect recent revisions to program, changed to new format
09	11/04/2013	Revised table to reflect recent revisions to program
08	08/26/2013	Revised table to reflect recent revisions to program
07	08/05/2013	Revised table to reflect recent revisions to program
06	09/25/2012	Revised table to reflect recent revisions to program
05	08/31/2012	Revised table to reflect recent revisions to program
04	07/29/2011	Revised table to reflect recent revisions to program
03	11/16/2010	Revised table to reflect recent revisions to program
02	05/15/2008	Audit (YR2) 2007
01	05/26/2005	3rd Party Audit Phase I Revisions