

## Texas Commission on Environmental Quality

### CHECKLIST WORKSHEET

MSW GROUNDWATER

Regulating Entity Name

Date :

Additional I D:

Investigator Name:

Item Number	Description	Answer	Citations	Notes
	SECTION A: Applicability			
Item Number 1	Description Did the landfill cease receiving waste prior to October 9, 1993 and has no groundwater (GW) monitoring requirements specified in its permit per 330.5(c-e)? If "yes", remainder of checklist is NOT APPLICABLE.			
Item Number 2	Description Does the landfill (LF) have an arid exemption per 330.5 (b)? If "yes", answer Item #3.			
Item Number 3	Description Is the arid exempt landfill compliant with applicable exemption requirements per 330.5(b) (1) (A-D)?		330.5(b)(1)(C)	
Item Number 4	Description Is the LF a Type IV landfill and not required to install a GW monitoring system per 330.5(a) (2). If "yes", answer Item #5.			
Item Number 5	Description Is the type IV Landfill compliant with applicable exemption requirements per 330.5(b) (1) (A-D)?		330.5(b)(1)(C)	
Item Number 6	Description Has the MSWLF unit had its GW monitoring requirements suspended per 330.5(b)(4)? If "yes", answer Item #7.			
Item Number 7	Description Is the MSW LF unit compliant with applicable exemption requirements per 330.5(d)?		330.5(d)	
Item Number 8	Description If the LF is not a Type I or Type IV, but has been required to establish a GW monitoring program, is the LF unit in compliance with those established requirements per 330.5(c)?		330.5(c)	
Item Number 9	Description SECTION B: Groundwater Monitoring at Type IV Site Has a ground water monitoring system been installed in accordance with 30 TAC 330.417(b) (2) w/ref. to 330.403?		330.417(b)(2)	
Item Number 10	Description Is GW sampling and analysis being conducted in accordance with 30 TAC 330.417(b) (3) w/ref. to 330.405(a)-(d)?		330.405(b)(3)	
Item Number 11	Description Is each monitoring well or other sampling point being sampled annually or on some other schedule but not less frequent than annual & being analyzed for chloride, iron, manganese, cadmium, zinc, TDS, specific conductance (field & lab measurements), PH (field & lab measurements), and non-purgeable organic compounds?		330.417(b)(4)	
Item Number 12	Description Has the owner or operator submitted a report containing the results of the analyses to the Agency within 60 days after the sampling event?		330.417(b)(5)	

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<b>Item Number</b>	<b>Description</b>	SECTION C: Groundwater Monitoring at Type I Sites		
		<b>Answer</b>	<b>Citations</b>	<b>Notes</b>
<b>Item Number 13</b>	<b>Description</b>	Has the owner or operator submitted a certification to the Agency that the GW monitoring system is in compliance with the requirements of 330.403 for any units which are receiving waste?		
		<b>Answer</b>	<b>Citations</b>	<b>Notes</b>
			330.403	
<b>Item Number 14</b>	<b>Description</b>	If the LF is active or in the post-closure care period, is GW monitoring being conducted per 330.405?		
		<b>Answer</b>	<b>Citations</b>	<b>Notes</b>
			330.405	
<b>Item Number 15</b>	<b>Description</b>	Has the GW monitoring system been certified by a qualified groundwater scientist?		
		<b>Answer</b>	<b>Citations</b>	<b>Notes</b>
			330.403(e)	
<b>Item Number 16</b>	<b>Description</b>	Has the GW monitoring system certification been submitted to the Agency?		
		<b>Answer</b>	<b>Citations</b>	<b>Notes</b>
			330.403(e)	
<b>Item Number 17</b>	<b>Description</b>	Is a copy of the GW monitoring system certification in the operating record?		
		<b>Answer</b>	<b>Citations</b>	<b>Notes</b>
			330.403(e)	
<b>Item Number 18</b>	<b>Description</b>	Has the GW monitoring system been approved by the Agency?		
		<b>Answer</b>	<b>Citations</b>	<b>Notes</b>
			330.403(e)	
<b>Item Number 19</b>	<b>Description</b>	Has the GW monitoring system been constructed in accordance with the plans and specs contained in the approved Site Development Plan (including any modifications)?		
		<b>Answer</b>	<b>Citations</b>	<b>Notes</b>
			330.403(a)	
<b>Item Number 20</b>	<b>Description</b>	Are the tops of the well casing at least 2 feet above ground level?		
		<b>Answer</b>	<b>Citations</b>	<b>Notes</b>
			330.421(a)(2)(	
<b>Item Number 21</b>	<b>Description</b>	Is the concrete pad present at each well, in good condition, at least 6 inches thick, at least 4 feet square or 5 feet in diameter, and slopes away from the casing or collar?		
		<b>Answer</b>	<b>Citations</b>	<b>Notes</b>
			330.421(a)(3)	
<b>Item Number 22</b>	<b>Description</b>	Is there a protective collar present around the casing "stickup" of each well, which extends at least three inches above the top of the casing and/or top cap, with a hinged lid that is installed with a sturdy lock which is in good working order and kept locked except when sampling or purging?		
		<b>Answer</b>	<b>Citations</b>	<b>Notes</b>
			330.421(a)(4)	
<b>Item Number 23</b>	<b>Description</b>	Is the well number or other designation marked permanently on the protective steel collar?		
		<b>Answer</b>	<b>Citations</b>	<b>Notes</b>
			330.421(a)(4)	
<b>Item Number 24</b>	<b>Description</b>	Are protective barriers (bumper poles) installed around each of the wells and are they in good condition?		
		<b>Answer</b>	<b>Citations</b>	<b>Notes</b>
			330.421(a)(5)	
<b>Item Number 25</b>	<b>Description</b>	Is each well casing permanently marked at the surveyed elevation point?		
		<b>Answer</b>	<b>Citations</b>	<b>Notes</b>
			330.421(d)	
<b>Item Number 26</b>	<b>Description</b>	Were complete monitoring well installation and construction details submitted to the Agency on commission forms within 60 days of well completion?		
		<b>Answer</b>	<b>Citations</b>	<b>Notes</b>
			330.421(e)	
<b>Item Number 27</b>	<b>Description</b>	Does any well appear to have been damaged to the extent that it is not suitable for sampling? If so, has a report been submitted to the Agency for determination about whether to repair or replace the well?		
		<b>Answer</b>	<b>Citations</b>	<b>Notes</b>
			330.421(f)	

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Item Number 28	<p><b>Description</b> If any monitoring well is no longer being used, has the abandonment of the well been approved by the Agency in writing?</p> <p><b>Answer</b>                      <b>Citations</b>                      330.421(g)                      <b>Notes</b></p>
Item Number 29	<p><b>Description</b> Has the abandoned well been properly plugged in accordance with 16 TAC 76.702 &amp; 76.1004?</p> <p><b>Answer</b>                      <b>Citations</b>                      330.421(g)                      <b>Notes</b></p>
Item Number	<p><b>Description</b> SECTION D: Groundwater Sampling and Analysis</p> <p><b>Answer</b>                      <b>Citations</b>                                           <b>Notes</b></p>
Item Number 30	<p><b>Description</b> Has a Groundwater Sampling and Analysis Plan (GWSAP) been submitted to the Agency for review and approval prior to commencement of sampling activities?</p> <p><b>Answer</b>                      <b>Citations</b>                      330.405(b)                      <b>Notes</b></p>
Item Number 31	<p><b>Description</b> Is a current copy of the approved GWSAP being maintained in the operating records?</p> <p><b>Answer</b>                      <b>Citations</b>                      330.405(b)                      <b>Notes</b></p>
Item Number 32	<p><b>Description</b> Were the groundwater sampling activities conducted during this investigation? If "yes", answer Item #33.</p> <p><b>Answer</b>                      <b>Citations</b>                                           <b>Notes</b></p>
Item Number 33	<p><b>Description</b> Were the groundwater sampling activities conducted in accordance with the current approved GWSAP?</p> <p><b>Answer</b>                      <b>Citations</b>                      330.405(b)                      <b>Notes</b></p>
Item Number 33A	<p><b>Description</b> Follows stated procedures and techniques for sample collection, conducting field measurements, sample preservation, analytical procedures, shipment, chain-of-custody controls, quality assurance, and quality control per 330.405(b)(1).</p> <p><b>Answer</b>                      <b>Citations</b>                                           <b>Notes</b></p>
Item Number 33B	<p><b>Description</b> Provides for proper measurement of groundwater elevations at each sampling point prior to bailing or purging per 330.405(b)(3).</p> <p><b>Answer</b>                      <b>Citations</b>                                           <b>Notes</b></p>
Item Number 33C	<p><b>Description</b> Provides for proper sampling and analytical methods that are appropriate for groundwater sampling and that accurately measure hazardous constituents and other monitoring parameters in groundwater samples per 330.405(b)(3).</p> <p><b>Answer</b>                      <b>Citations</b>                                           <b>Notes</b></p>
Item Number 33D	<p><b>Description</b> Ensures that the groundwater samples are not field-filtered prior to lab analysis for constituents listed in 30 TAC 330.405(c) unless previously authorized in writing by the Agency.</p> <p><b>Answer</b>                      <b>Citations</b>                                           <b>Notes</b></p>
Item Number 33E	<p><b>Description</b> Sampling procedures and frequency must be protective of human health and the environment per 330.405(b)(1) (e.g. a health and safety plan is followed, non-dedicated sampling equipment is properly decontaminated before and after each use, proper procedures are followed to prevent introduction of contaminants into the groundwater, contaminated purge water is properly handled).</p> <p><b>Answer</b>                      <b>Citations</b>                                           <b>Notes</b></p>
Item Number 34	<p><b>Description</b> Are groundwater samples analyzed for the constituents identified in the approved GWSAP or as otherwise specified by the Agency?</p> <p><b>Answer</b>                      <b>Citations</b>                      330.405(b)(3)                      <b>Notes</b></p>
Item Number 35	<p><b>Description</b> Is groundwater monitoring conducted at the frequency identified in the approved GWSAP or as otherwise specified by the Agency?</p> <p><b>Answer</b>                      <b>Citations</b>                      330.407(a)                      <b>Notes</b></p>
Item Number 36	<p><b>Description</b> Are the results of each groundwater sampling event submitted to the Agency within 60 days after the sampling event or otherwise specified by the Agency?</p>

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	<b>Answer</b>	<b>Citations</b>	330.407(b)	<b>Notes</b>
<b>Item Number</b>	<b>Description</b>	SECTION E: Status of Groundwater Monitoring Activities		
	<b>Answer</b>	<b>Citations</b>		<b>Notes</b>
<b>Item Number</b> 37	<b>Description</b>	If required, has the entity met the Detection Monitoring Program requirements?		
	<b>Answer</b>	<b>Citations</b>	330.407	<b>Notes</b>
<b>Item Number</b> 38	<b>Description</b>	If required, has the entity met the Assessment Monitoring Program requirements according to the stated time schedules?		
	<b>Answer</b>	<b>Citations</b>	330.409	<b>Notes</b>
<b>Item Number</b> 39	<b>Description</b>	Is the entity currently under Groundwater Corrective Action? If "Yes", answer Items #40, #41, and #42.		
	<b>Answer</b>	<b>Citations</b>		<b>Notes</b>
<b>Item Number</b> 40	<b>Description</b>	If under Corrective Action, has the entity met the less than 90 days initiation deadline for assessment of corrective measures?		
	<b>Answer</b>	<b>Citations</b>	330.411(a)	<b>Notes</b>
<b>Item Number</b> 41	<b>Description</b>	If under Corrective Action, has the entity met the less than 30 days submitting deadline for the "Selection of Remedy" report following the completion of the assessment corrective action described in 30 TAC 330.413(a)?		
	<b>Answer</b>	<b>Citations</b>	330.413(a)	<b>Notes</b>
<b>Item Number</b> 42	<b>Description</b>	If under corrective Action, does the implementation of the corrective program meet the requirement of 30 TAC 330.415?		
	<b>Answer</b>	<b>Citations</b>	330.415	<b>Notes</b>