

Project Name: \_\_\_\_\_

Categorization of Infiltration Feasibility Condition based on Groundwater and Water Balance Conditions		Form I-8B <sup>1</sup> (Worksheet C.4-2)
<b>Part 1 - Full Infiltration Feasibility Screening Criteria</b>		
<b>DMA(s) Being Analyzed:</b>		<b>Project Phase:</b>
<b>Criteria 1: Groundwater Screening</b>		
<b>1A</b>	<p><b>Groundwater Depth.</b> Is the depth to seasonally high groundwater tables (normal high depth during the wet season) beneath the base of any full infiltration BMP greater than 10 feet?</p> <p><input type="checkbox"/> Yes; continue to Step 1B.</p> <p><input type="checkbox"/> No; The depth to groundwater is less than or equal to 10 feet, but site layout changes or reasonable mitigation measures can be proposed to support full infiltration BMPs. Continue to step 1B.</p> <p><input type="checkbox"/> No; The depth to groundwater is less than or equal to 10 feet and site layout changes or reasonable mitigation measures cannot be proposed to support full infiltration BMPs. Answer “No” for Criteria 1 Result.</p>	
<b>1B</b>	<p><b>Contaminated Soil/Groundwater.</b> Are proposed full infiltration BMPs at least 250 feet away from contaminated soil or groundwater sites? This can be confirmed using GeoTracker (<a href="http://geotracker.waterboards.ca.gov">geotracker.waterboards.ca.gov</a>) to identify open contaminated sites. The setbacks must be the closest horizontal radial distance from the surface edge (at the overflow elevation) of the BMP.</p> <p><input type="checkbox"/> Yes; continue to Step 1C.</p> <p><input type="checkbox"/> No; However, site layout changes or reasonable mitigation measures can be proposed to support full infiltration BMPs. Continue to Step 1C.</p> <p><input type="checkbox"/> No; Site layout changes or reasonable mitigation measures cannot be proposed to support full infiltration BMPs. Answer “No” to Criteria 1 Result.</p>	
<b>1C</b>	<p><b>Inadequate Soil Treatment Capacity.</b> Are full infiltration BMPs proposed in DMA soils that have adequate soil treatment capacity?</p> <p>The DMA has adequate soil treatment capacity if <b>ALL</b> of the following criteria (detailed in C.2.2.1) for all soil layers beneath the infiltrating surface are met:</p> <ul style="list-style-type: none"> <li>• USDA texture class is sandy loam or loam or silt loam or silt or sandy clay loam or clay loam or silty clay loam or sandy clay or silty clay or clay; and</li> <li>• Cation Exchange Capacity (CEC) greater than 5 milliequivalents/100g; and</li> <li>• Soil organic matter is greater than 1%; and</li> <li>• Groundwater table is equal to or greater than 10 feet beneath the base of the full infiltration BMP.</li> </ul> <p><input type="checkbox"/> Yes; continue to Step 1D.</p> <p><input type="checkbox"/> No; However, site layout changes or reasonable mitigation measures can be proposed to support full infiltration BMPs. Continue to Step 1D.</p> <p><input type="checkbox"/> No; Site layout changes or reasonable mitigation measures cannot be proposed to support full infiltration BMPs. Answer “No” to Criteria 1 Result.</p>	

<sup>1</sup> This form must be completed each time there is a change to the site layout that would affect the infiltration feasibility condition. Previously completed forms shall be retained to document the evolution of the site storm water design.



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<b>1D</b>	<p><b>Other Groundwater Contamination Hazards.</b> Are there site-specific groundwater contamination hazards not already mentioned (refer to Appendix C.2.2) that can be reasonably mitigated to support full infiltration BMPs?</p> <p><input type="checkbox"/> Yes; there are other contamination hazards identified that can be mitigated. Answer “Yes” to Criteria 1 Result.</p> <p><input type="checkbox"/> No; there are other contamination hazards identified that cannot be mitigated. Answer “No” to Criteria 1 Result.</p> <p><input type="checkbox"/> N/A; no contamination hazards are identified. Answer “Yes” to Criteria 1 Result.</p>	
<b>Criteria 1 Result</b>	<p>Can infiltration greater than 0.5 inches per hour be allowed without increasing risk of groundwater contamination that cannot be reasonably mitigated to an acceptable level? See Appendix C.2.2.8 for a list of typically reasonable and typically unreasonable mitigation measures.</p> <p><input type="checkbox"/> Yes; Continue to Part 1, Criteria 2.</p> <p><input type="checkbox"/> No; Continue to Part 1 Result.</p>	
<p>Summarize groundwater quality and any mitigation measures proposed. Documentation should focus on groundwater table, mapped soil types and contaminated site locations.</p>		

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<b>Criteria 2: Water Balance Screening</b>		
<b>2A</b>	<p><b>Ephemeral Stream Setback.</b> Does the proposed full infiltration BMP meet both the following?</p> <ul style="list-style-type: none"> <li>• The full infiltration BMP is located at least 250 feet away from an ephemeral stream; <b>AND</b></li> <li>• The bottom surface of the full infiltration BMP is at a depth 20 feet or greater from seasonally high groundwater tables.</li> </ul> <p><input type="checkbox"/> Yes; Answer “Yes” to Criteria 2 Result.</p> <p><input type="checkbox"/> No; Continue to Step 2B.</p>	
<b>2B</b>	<p><b>Mitigation Measures.</b> Can site layout changes be proposed to support full infiltration BMPs?</p> <p><input type="checkbox"/> Yes; the site can be reconfigured to mitigate potential water balance issues. Answer “Yes” to Criteria 2 Result.</p> <p><input type="checkbox"/> No; the site cannot be reconfigured to mitigate potential water balance issues. Continue to Step 2C and provide discussion.</p>	
<b>2C</b>	<p><b>Additional studies.</b> Do additional studies support full infiltration BMPs?</p> <p>In the event that water balance effects are used to reject full infiltration (anticipated to be rare), additional analysis shall be completed and documented by a qualified professional indicating the site-specific information evaluated and the technical basis for this finding.</p> <p><input type="checkbox"/> Yes; Answer “Yes” to Criteria 2 Result.</p> <p><input type="checkbox"/> No; Answer “No” to Criteria 2 Result.</p>	
<b>Criteria 2 Result</b>	<p>Can infiltration greater than 0.5 inches per hour be allowed without causing potential water balance issues such as change of seasonality of ephemeral streams?</p> <p><input type="checkbox"/> Yes; Continue to Part 1 Result.</p> <p><input type="checkbox"/> No; Continue to Part 1 Result.</p>	
<p>Summarize potential water balance effects. Documentation should focus on mapping and soil data regarding proximity to ephemeral streams and groundwater depth.</p>		

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Categorization of Infiltration Feasibility Condition based on Groundwater and Water Balance Conditions		Form I-8B <sup>1</sup> (Worksheet C.4-2)
<b>Part 1 – Full Infiltration Groundwater and Water Balance Screening Result<sup>2</sup></b>		<b>Result</b>
<p>If answers to Criteria 1 and 2 are “Yes”, a full infiltration design is potentially feasible. The feasibility screening category is Full Infiltration based on groundwater conditions.</p> <p>If answer to Criteria 1 or Criteria 2 is “No”, infiltration may be possible to some extent but would not generally be feasible or desirable to achieve a “full infiltration” design based on groundwater conditions. Proceed to Part 2.</p>		<input type="checkbox"/> <b>Full Infiltration</b>  <input type="checkbox"/> <b>Complete Part 2</b>
<b>Part 2 – Partial vs. No Infiltration Feasibility Screening Criteria</b>		
<b>DMA(s) Being Analyzed:</b>		<b>Project Phase:</b>
<b>Criteria 3: Groundwater Screening</b>		
<p><b>Contaminated Soil/Groundwater.</b> Are partial infiltration BMPs proposed at least 100 feet away from contaminated soil or groundwater sites? This can be confirmed using GeoTracker (<a href="http://geotracker.waterboards.ca.gov">geotracker.waterboards.ca.gov</a>) to identify open contaminated sites. This criterion is intentionally a smaller radius than full infiltration, as the potential quantity of infiltration from partial infiltration BMPs is smaller.</p> <p><input type="checkbox"/> Yes; Answer “Yes” to Criteria 3 Result.</p> <p><input type="checkbox"/> No; However, site layout changes can be proposed to avoid contaminated soils or soils that lack adequate treatment capacity. Select “Yes” to Criteria 3 Result. It is a requirement for the SWQMP preparer to identify potential mitigation measures.</p> <p><input type="checkbox"/> No; Contaminated soils or soils that lack adequate treatment capacity cannot be avoided and partial infiltration BMPs are not feasible. Select “No” to Criteria 3 Result.</p>		
<p>Criteria 3 Result: Can infiltration of greater than or equal to 0.05 inches/hour and less than or equal to 0.5 inches/hour be allowed without increasing risk of groundwater contamination that cannot be reasonably mitigated to an acceptable level?</p> <p><input type="checkbox"/> Yes; Continue to Part 2, Criteria 4.</p> <p><input type="checkbox"/> No; Skip to Part 2 Result.</p>		
<p>Summarize findings and basis. Documentation should focus on mapped soil types and contaminated site locations.</p>		

<sup>2</sup> To be completed using gathered site information and best professional judgement considering the definition of MEP in the MS4 Permit. Additional testing and/or studies may be required by City Engineer to substantiate findings.

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<b>Criteria 4: Water Balance Screening</b>	
<p><b>Additional studies.</b> In the event that water balance effects are used to reject partial infiltration (anticipated to be rare), a qualified professional must provide an analysis of the incremental effects of partial infiltration BMPs on the water balance compared to incidental infiltration under a no infiltration scenario (e.g. precipitation, irrigation, etc.).</p>	
<p>Criteria 4 Result: Can infiltration of greater than or equal to 0.05 inches/hour and less than or equal to 0.5 inches/hour be allowed without causing potential water balance issues such as change of seasonality of ephemeral streams?</p> <p><input type="checkbox"/> Yes: Continue to Part 2 Result.</p> <p><input type="checkbox"/> No: Continue to Part 2 Result.</p>	
<p>Summarize potential water balance effects. Documentation should focus on mapping and soil data regarding proximity to ephemeral streams and groundwater depth.</p>	
Part 2 – Partial Infiltration Groundwater and Water Balance Screening Result <sup>3</sup>	Result
<p>If answers to Criteria 3 and Criteria 4 are “Yes”, a partial infiltration design is potentially feasible. The feasibility screening category is Partial Infiltration based on groundwater and water balance conditions.</p> <p>If answer to Criteria 3 or Criteria 4 is “No”, then infiltration of any volume is considered to be infeasible within the site. The feasibility screening category is No Infiltration based on groundwater or water balance condition.</p>	<p><input type="checkbox"/> <b>Partial Infiltration Condition</b></p> <p><input type="checkbox"/> <b>No Infiltration Condition</b></p>

<sup>3</sup> To be completed using gathered site information and best professional judgement considering the definition of MEP in the MS4 Permit. Additional testing and/or studies may be required by City Engineer to substantiate findings.