

	Practical Interpretation of Border Dyke Irrigation GMP Expectation	Evidence Required for Audit
Upgraded/renovated Border Dyke system complies with Industry standards	<p>The design for the upgrade/ renovation has an independent audit using the SRFR USDA Border Strip and Furrow model or other approved method.</p> <p>The design is shown to achieve an average application efficiency of 80%.</p>	Design audit report.
Existing Border Dyke system performance is checked annually	<p>Performance is checked annually through -</p> <ol style="list-style-type: none"> 1. Keeping the following records for each irrigation event: <ol style="list-style-type: none"> a. Watering time (hrs) b. Area irrigated (ha) c. Water flow (l/s) 2. Determining the annual watering rate and the annual application depth, where - <ol style="list-style-type: none"> a. Annual watering rate (ha/hr) $= \frac{\sum(\text{area irrigated})}{\sum(\text{watering time})}$ b. Annual application depth (mm) $= \frac{(\sum(\text{water flow} \times \text{watering time}) \times 3.6)}{(\sum(\text{areas irrigated}) \times 10)}$ 3. Comparing average application depth to the soils readily available water, where <ol style="list-style-type: none"> a. Average application depth (mm) $= \frac{\text{Annual application depth}}{\text{Number of irrigation events}}$ b. Average application efficiency (%) $= \frac{\text{RAW}_{60}}{\text{average application depth}} \times 100$ 4. There is an expectation that the Border Dyke irrigation systems performance achieves an average application efficiency of 60%. 5. Regular visual checks of headrace gates for leakages; sills for uneven watering and water times for over/under watering; and repairs/changes made as required. 	<ol style="list-style-type: none"> 1. Records of each irrigation event provided and annual watering rate, annual application depth, average application depth and average application efficiency are calculated. 2. Record of changes made to adjust performance (if required).

<p>Irrigation is scheduled</p>	<ol style="list-style-type: none"> 1. If water is supplied via an irrigation scheme roster, an irrigation scheduling method is used, as a minimum, on the shoulders of the irrigation season to determine the timing of irrigation events. 2. If water is supplied on demand, an irrigation scheduling method is used to determine the timing of irrigation events. 	<ol style="list-style-type: none"> 1. <i>Soil moisture monitoring/ other sensing methodologies</i> A trace or data is provided, and the farmer/ grower can describe their irrigation decision-making process in relation to it. 2. <i>Water budget</i> Data is provided, and the farmer/ grower can describe their irrigation decision-making process in relation to it, including the climate data set used. 3. <i>Plant and soil observations</i> Records are provided, and the farmer/grower can describe their irrigation decision-making process in relation to these. <p>Note: Plant and soil observations are acceptable to be used in combination with methods 1 or 2 above, but they are not acceptable as a stand-alone method across all the farms irrigation management zones.</p>
<p>Staff are trained</p>	<ol style="list-style-type: none"> 1. There is an irrigation operation and maintenance manual for the farm. 2. Staff have been trained internally in the operation of the border dyke irrigation systems operation and maintenance. 3. The irrigation decision maker has attended an Irrigation '101' workshop. At a minimum this must cover soil water, plant water use and irrigation scheduling. 	<ol style="list-style-type: none"> 1. Operation and maintenance manual sighted, and evidence provided to demonstrate it is being actively used (a maintenance log for example). 2. Evidence of company staff training programme. 3. Certificate of attendance for irrigation '101' workshop.

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