



**Screen area** must be large enough not to cause fish impact. Wetted screen area depends on the water flow rate and the approach velocity.

**Screen approach velocity for ditch and active pump screens** shall not exceed 0.4 fps (feet per second) or 0.12 mps (meters per second). The wetted screen area in square feet is calculated by dividing the maximum water flow rate in cubic feet per second (1 cfs = 449 gpm) by 0.4 fps. \*

**Screen sweeping velocity for ditch screens** shall exceed the approach velocity. Screens greater than 6 feet in length must be angled. This angle may be decided by site specific geometry, hydraulic, and sediment conditions. An adequate **bypass system** must be provided for ditch screens to safely and rapidly collect and transport fish back to the stream.

**Screen approach velocity for passive pump screens** shall not exceed 0.2 fps or 0.06 mps. The wetted screen area in square feet is calculated by dividing the maximum water flow rate by 0.2 fps. Pump rate must be less than 3 cfs. \* **Passive pump screens are only allowed where there is insufficient depth in the water body to operate a self-cleaning pump screen.**

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\* **Pump screens should have internal balance tubes for uniform approach velocity. A pump screen without balance tubes must have more wetted screen surface than indicated in these formulas.**

*For further information please contact:*

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