

CANAL HEAD REGULATOR

➤ **Breast Wall:**

- Breast wall is a RCC wall provided from the pond level upto river HFL (Highest Flood level) to avoid spilling of the water over the canal regulator gates.
- Breast wall spans for the entire length of the regulator & will rest over the piers of the regulator bays.
- Breast wall is subjected to vertical self weight and horizontal water pressure acting against it from the upstream side.

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➤ Weir or Barrage Regulation:

- The silt can be removed from the entering water by operating the undersluices of the barrage or weir.
- The supplies entering the canal which takes off from the upstream of a weir (or) a barrage can be regulated in the following two ways;
 - 1) Still pond regulation
 - 2) Semi open flow regulation

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➤ Weir or Barrage Regulation:

1. *Still pond regulation*

- In this method of regulation, all the gates of the undersluices are kept closed while the canal is running. Hence the undersluice pocket draws only as much discharge as is required for the canal.
- This is very useful method to control the amount of silt entering the canal.
- This method is possible only when the crest of the canal head regulator is high above the upstream floor of the undersluices.

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➤ Weir or Barrage Regulation:

2. *Semi open flow regulation*

- This method does not provide proper control on entry of silt into the canal because turbulence created in the pocket tend to raise the coarser material upwards and enter the canal.