



Third Set of Locks Project

Fact Sheet

Relevant information on the third set of locks project

1 Project Components

- **Third set of locks project objectives.** The objectives of the Canal expansion are: (1) to make long term growing and sustainable contributions to the Panamanian society, through the payments that the Canal makes to the National Treasury; (2) to maintain Canal's competitiveness as well as the value of the Panama maritime route to the national economy; (3) to increase the Canal's capacity in order to capture the growing demand with the appropriate level of service for each market segment; (4) to increase Canal's productivity, safety and efficiency.
- **General description.** The third set of locks project is an integral Canal capacity expansion program with three main components, as follows: (1) the construction of two lock facilities – one in the Atlantic side and one in the Pacific side – each with water reutilization basins; (2) the construction of access channels for the new locks, as well as the widening of existing channels; and (3) the deepening of the existing navigation channels and the elevation of Gatun Lake's maximum operating level.
- **Locks location.** One new lock facilities will be located on the Pacific side, to the Southwest of Miraflores Locks. The other new lock facility will be located to the East of Gatun Locks. Both complexes will be within the ACP patrimonial areas.
- **Number of lock levels.** Each one of the two new lock facilities will have three levels or chambers, similar to the configuration of the existing Gatun locks.
- **Locks dimensions.** Lock chambers will be 427 m (1,400') long, by 55 m (180') wide, and 18.3 m (60') deep.



- **Maximum vessel dimensions.** The new locks will allow the transit of vessels with a beam of up to 49 m (160'), an overall length of up to 366m (1,200') and a draft of up to 15 m (50').
- **Number of water reutilization basins.** Each of the chambers of the new locks will have three water reutilization basins for a total of nine basins each lock facility and a total of 18 water reutilization basins for the entire project.
- **Dimensions of the water reutilization basins.** Each water reutilization basin will be approximately 70 m wide, 430 m long and 5.50 m deep.
- **Dimensions of the new locks' approach channels.** Two new channels will be built to connect the new locks on the Pacific side with the existing channels: (1) the north channel, which will connect the lock to the Gaillard Cut channel, circumventing Miraflores Lake, will be 6.2 Km. long and (2) the south channel that will connect the lock with the existing sea entrance on the Pacific Ocean, will be 1.8 Km. long. The new channels will be 218 m (715') wide, both on the Atlantic and Pacific sides, which will allow post-Panamax vessels to navigate those channels in one single direction at a time.
- **Dimensions of the widening and deepening of Gatun Lake and Gaillard Cut channels.** Gatun Lake and Gaillard Cut channels will be deepened by 1.20 m (4'), from level 10.4m (34') PLD to level 9.1 m (30') PLD¹. Gatun Lake channels will be widened to no less than 280 m (920') on the straight portions and no less than 366 m (1,200') on the bends.
- **Dimensions of the widening and deepening of sea entrance channels.** The navigational channels at the sea entrances on the Canal's Atlantic and Pacific sides will be widened and deepened to no less than 225 m (740') wide and 15.5 m (51') deep, with the lowest tide.
- **Elevation of Gatun Lake's maximum operating level.** Gatun Lake's maximum operational level will be raised by approximately 0.45 m (1.5'), from the actual 26.7 m (87.5') PLD level to 27.1 m (89') PLD.
- **Gate types.** The new locks will use rolling gates instead of miter gates as the existing locks. For safety and redundancy, two rolling gates will be installed at each end of each lock chamber. Rolling gates maintenance will be performed inside the slot that they retract into, which also serves as a maintenance dry dock.
- **The three components of the third set of locks project's water program.** (1) Raising Gatun Lake's maximum operational level, (2) deepening Gatun Lake's navigational channel, and (3) three water reutilization basins per each lock chamber.

¹ PLD is the abbreviation of *Precise Level Datum*. It is the geodesic reference level used at the Canal.