

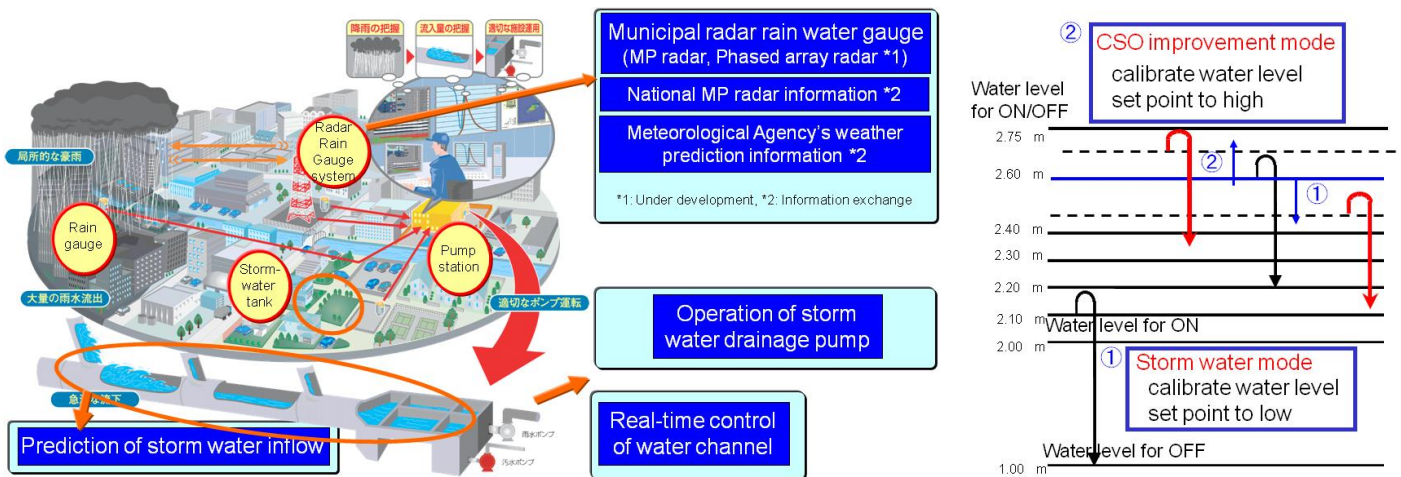
# System technologies for urban drainage and combined sewer overflow

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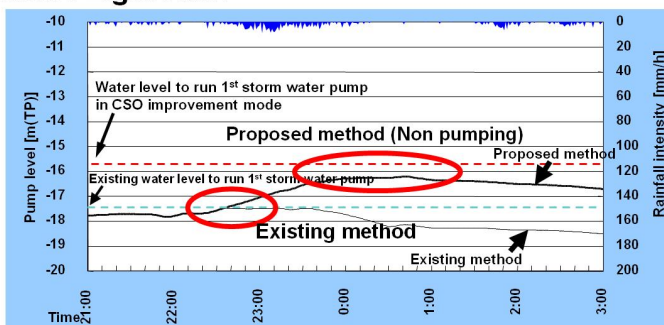
Sewerage facilities are required to reduce the effluent load on receiving water bodies such as rivers and to prevent flooding as well as overflowing of combined sewers. Toshiba offers various advanced operational control systems to support the efficient operation of sewerage facilities.

## FEATURES

- **Safety operation for flooding:** Storm water mode
- **Improvement of CSO:** CSO improvement mode
- **Revising pump start-up level:** Using predicted inflow

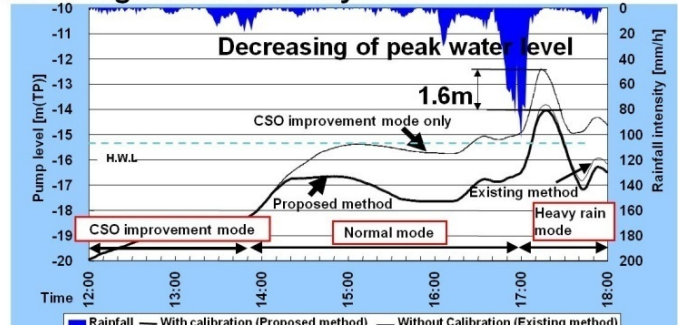


### Case : Light Rain



Reduction of operational cost & pollution load  
Result of 15% reduction of overflow discharge decreased pollution load

### Case : Light Rain → Heavy Rain



According to weather condition, changing operational mode appropriately and preparing for flooding

## Future

### Adopting new rainfall radar technologies

- **X-band MP Radar**
  - Multi-parameter (MP) from horizontal- and vertical- dual polarization radar beam
  - Adopting solid-state transmitter, improve life-span and shorten replacement time
- **Phased-array Radar Rain Gauge**
  - Observing cumulonimbus in 3-dimension within 1 minute period by DBF technology
  - Achieving torrential rain forecasting, expected to contribute to flood damage reduction