

Collaboration Effort to Maintain the Water Resources Degradation At Batu Municipality, East Java, Indonesia

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Maintain the origin spring water of the Brantas River

- The government and Perum Jasa Tirta was preserving the area where the spring water resources that believed as the origin of the Brantas River.
- This area was locate at the Sumber Brantas Village, Junggo sub-district.
- The area recently was developed as the "Arboretum", where the origin of Brantas River located.
- This activity had purpose beside to preserve the spring water resources by reforest activity, the government want to make the area as the "museum"



Conducting the preserving of the spring water resources

- Perum Jasa Tirta have conducted to collecting the data of 107 number of spring water resources in the Batu municipality surrounding area
- This activity was shown the availability of the spring water discharge that can be used as one factor to developing the Batu Municipality in the future era.
- The data shown that some of spring water resources were used to support not only for the Batu area but also for the region that located at the downstream of this area, Malang regency and Malang Municipality.
- This situation need some attention for manage the water resources in the future, especially for maintain the conflict that maybe occur between those region

Conducting the some study of the water resources

- The government conducting some study that connecting with the water resources field.
- The government has some collaborate with the university or the consultant to serving the availability data to support the action in the water resources preserving.
- Some study that had conducted such as the study about the sedimentation at the river that related with the erosion that occurred at the forest and the farmland. The study shown that erosion that occurred at the river was 0.42 ton/hectare/year, while the erosion rate was 0.003 cm/year
- Beside that hydrologic study was shown that the river discharge and the amount of the rainwater still sufficient to support the availability for the Batu Municipality area supply of water

Placement the water resources collecting data station

- Some station collecting data of the water resources had placed at Brantas River.
- This station was collecting the data hourly, where the station was connecting with the station at the entire Brantas River watershed.
- The station collecting data was including the rain gauge station, discharge gauge station and water quality data station.
- These stations were under authorized of Perum Jasa Tirta and Energy, Water Resources and Mineral Office of Batu Municipality

Tracking the river and forest

- This activity was conducted by surveying the conditions of the river water and forest actually.
- The surveying was conducted by watching the conditions directly in the field, at the river and the forest. This activity was implemented routinely to know the real conditions of the field continuously
- At the forest the tracking was collecting the data of conditions of land use changing, type of plant that cultivated farmer activity and the other supporting data. This tracking was conducted with collaborated with the agriculture office and the university.
- The river tracking activity had conducted to collect the data of the river condition and its environment, such as the water conditions, sedimentation conditions, water quality, discharge and river banks conditions, sand and rock mining in the river and the other aspect of the river. This activity was conducted by the Energy, Water Resources and Mineral Office and supporting by university and interrelated institutions.

Brantas River Watershed Week Activity

- This activity was conducted by Student Union of Water Resources Engineering Department, Brawijaya University.
- This activity was including some competition that used the river water environment issue as the theme of the competition such as drawing and painting competition for kindergarten and elementary student, scientific paper competition for the high school and the university student, picture and photograph competition, and the river tracking competition that started from the Brantas River origin area.
- The entire competition had purpose to encourage the awareness of the community from the student to the public community to have contribution to preserving the water resources in the Brantas River watershed.



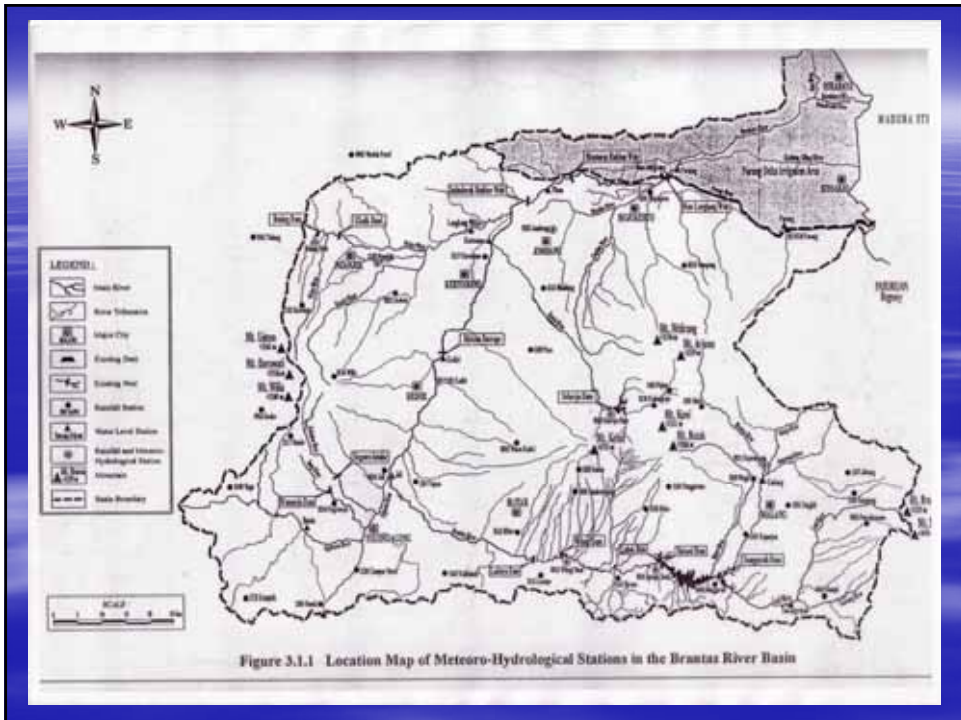


Figure 3.1.1 Location Map of Meteorological Stations in the Brantas River Basin