

Petunjuk Perencanaan Tugas Besar PIPAL

Dasar Perencanaan dan Peraturan

- PermenPUPR No.4/PRT/M/2017, Penyelenggaraan sistem pengolahan air limbah.
- UU No. 23/2014; Tugas Pemerintah Pusat dan Pemerintah Daerah dalam Sektor Air Limbah
- Permen LH No 68 Tahun 2016: Baku baku mutu air limbah domestik
- Metcalf and eddy 2003
- Syed R. Qasim
- Nusa Idaman Said
- Van Sparling (IWA: Biological wt in Warm Climate change)

Perencanaan Pengolahan Air Limbah

**Metcalf Eddy,
influent Medium
strength**

Influent air limbah
BOD = 190 mg/L
COD = 430 mg/L
TSS = 210 mg/L
Oil and grease = 90 mg/L
Ammonia = 25 mg/L
Total coliform = $10^{7\sim 9}$

Efluent air limbah
BOD = 30 mg/L
COD = 100 mg/L
TSS = 30 mg/L
Oil and grease = 5 mg/L
Ammonia = 10 mg/L
Total coliform = 3000
CFU/100 mL

**Permen LH
68/2016**

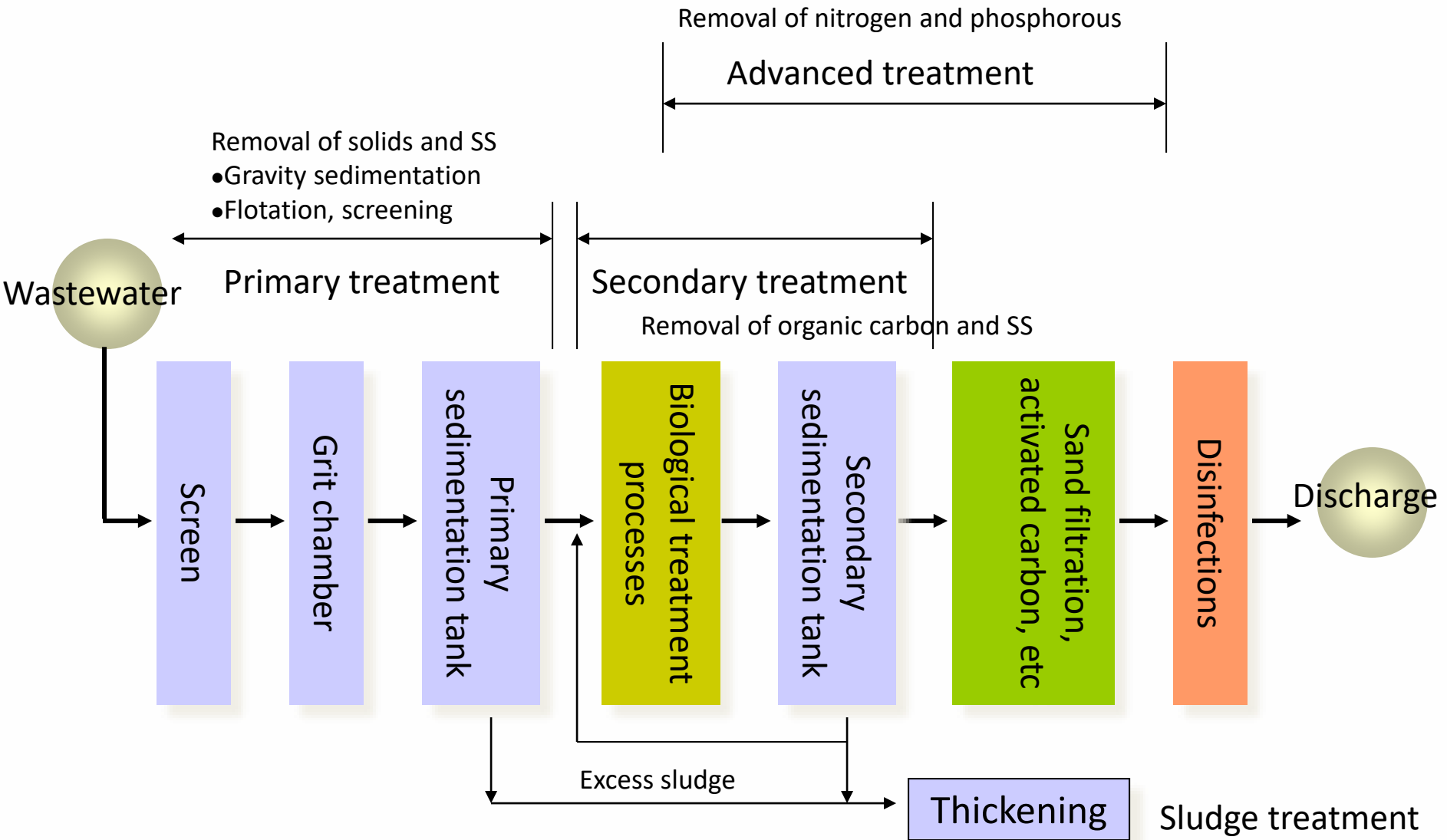
Analisis Debit
dan beban
aliran air
limbah

Penentuan
pemilihan
kriteria
pengolahan

Perhitungan
desain
pengolahan
air limbah

Perhitungan
RAB dan BOQ

Typical flow diagram of activated sludge systems



Physical

Biological

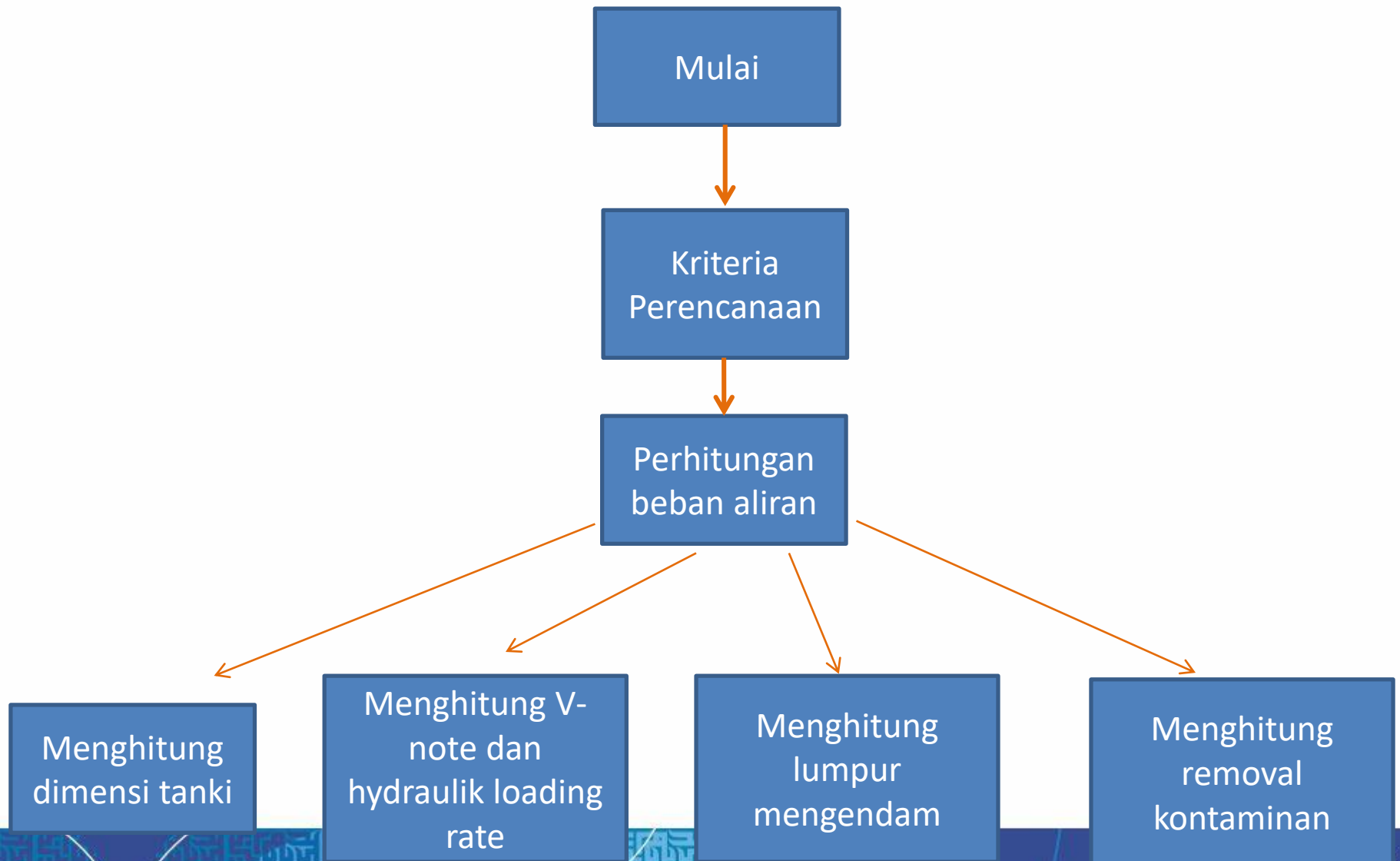
Chemical

Mixed



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Desain Primary Treatment



Perencanaan Pretreatment

- Pengolahan Pre-Treatment (Fisika)
 - Bar screen
 - Grit Chamber
 - Grease and oil
 - Bak equalisasi