Disaster drainage

natref

Proudly Natref




What is disaster drainage

- To allow companies to provide suitable system for the removal of excessive rain water from the plant or bunded areas

- To allow for a proper drainage system to control and manage emergency run down water during an emergency.

Why should we consider reviewing disaster drainage management plans

- Climate change
- Abnormal high sea levels at coast
- New plants build and not reviewing drainage systems
- Old infrastructures failing
- Legislation

How to evaluate the risk

- Latest floods
- Credible scenario volumes
- Failures of infrastructures
- Separator systems capabilities
- Areas exposed
- Risk to the business
- Risk to employees and service providers

What to keep in mind when manage these risks

- Convert run down water into volumes
- Convert the volumes into time to allow for the rundown water to be discharged
- Outlets – how do we managed outlets –legislation
- Can the separator systems cope with the run down water
- Neighbours

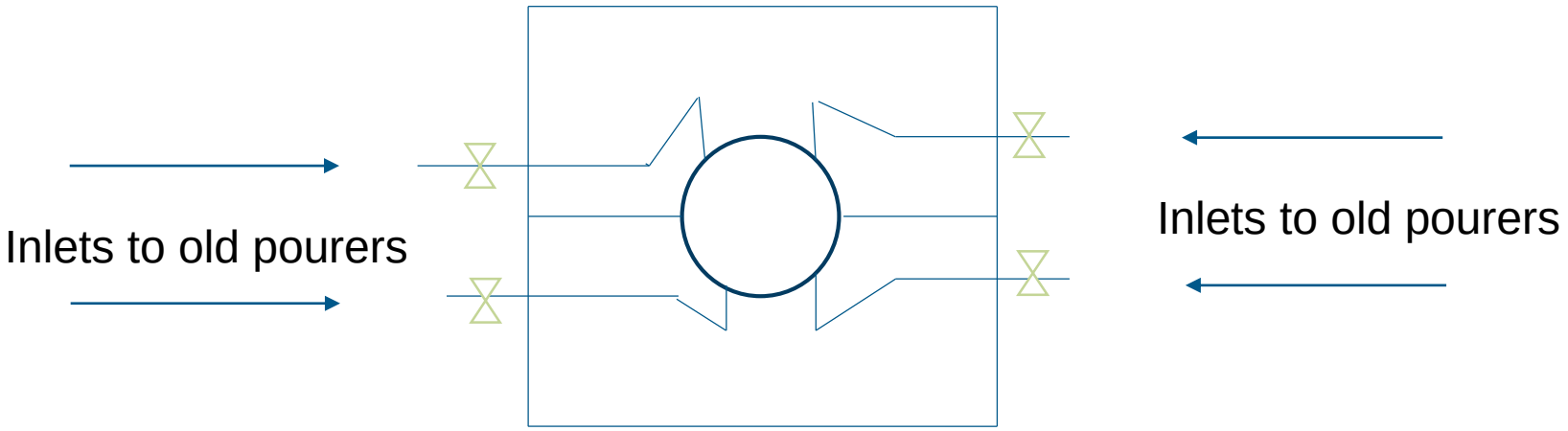
History of NDO

- Oily water systems was build just above ground levels
- Rain water entered these areas and caused pollution
- Pits were raised
- Rain water during floods still entered these pits
- Construction done to raise the pits
- Poor construction of pits resulted in oil seeping through the concrete.
- Storm water system is not design to manage storm water during floods and result in abnormal high water levels in the bund areas
- The separator system is not designed for floods
- No designs for fire run down water
- Bunds are not sealing during floods
- Storm water valves not maintained

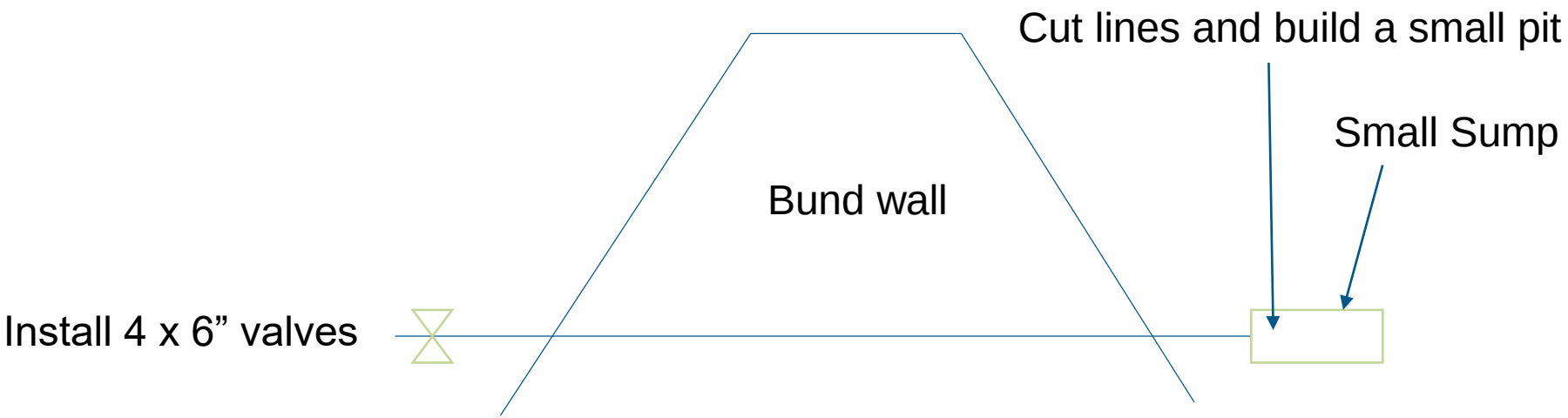
Proposal to solve the current situation

- Regular cleaning of the storm water system
- Regular maintenance on storm water valves
- Correct engineering practices when constructing the pits
- Use the old redundant 6” x 4fire water inlets to discharge water into the roadways

Currently



Proposal


Cut lines and build a small pit
Small Sump
Bund wall
Install 4 x 6” valves