Max Pawsey Reserve – Stormwater Harvesting

Darshana Pradhan – City of Casey
Nick Andrewes – Engeny Australia
Julian Giannetti – Engeny Australia

ENGENY

City of Casey

Presentation Overview

- About Casey (1)
- Project Background & History (1)
- Project Timeline (1)
- Project Stakeholders (1)
- Detailed Design
- Stakeholder Inputs(1)
- Stakeholder Engagement(1)
- Before Detailed Design (1)
- Construction (2)
- Questions

City of Casey

ENGENY

About Casey

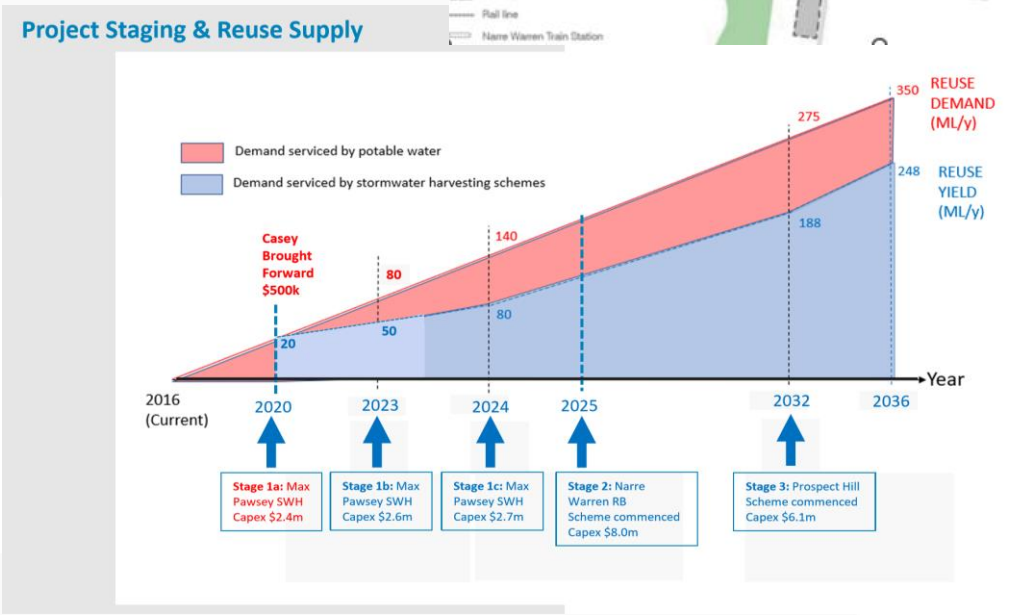
- One of the fastest growing municipalities in Victoria
- Council's Vision is to build Water Efficient City and adopted IWM plan in 2015
- Council has achieved a 21% reduction in per capita water usage from baseline year 2004/05 through water saving projects.
- As a part of alternative water supplies under IWM Plan within Casey followings sites are prioritised for stormwater harvesting
  - Staged delivery of Narre Warren alternative water network- Max Pawsey Reserve, Prospect Hill, Narre Warren Retarding Basin
  - Betula Reserve and Myuna Farm
  - Casey Fields
  - Muddy Gates

City of Casey

ENGENY

Project Background & History

- Narre Warren Alternative Water Network
  - Stage 1a – Deliver harvested stormwater to sports fields
  - Stage 1b &1c – Deliver harvested stormwater to Aquatic Centre (Casey ARC)
  - Stage 2 & 3- Deliver harvested stormwater to residential and commercial properties within Narre Warren Precinct



City of Casey

ENGENY

Project Timeline

City of Casey

ENGENY

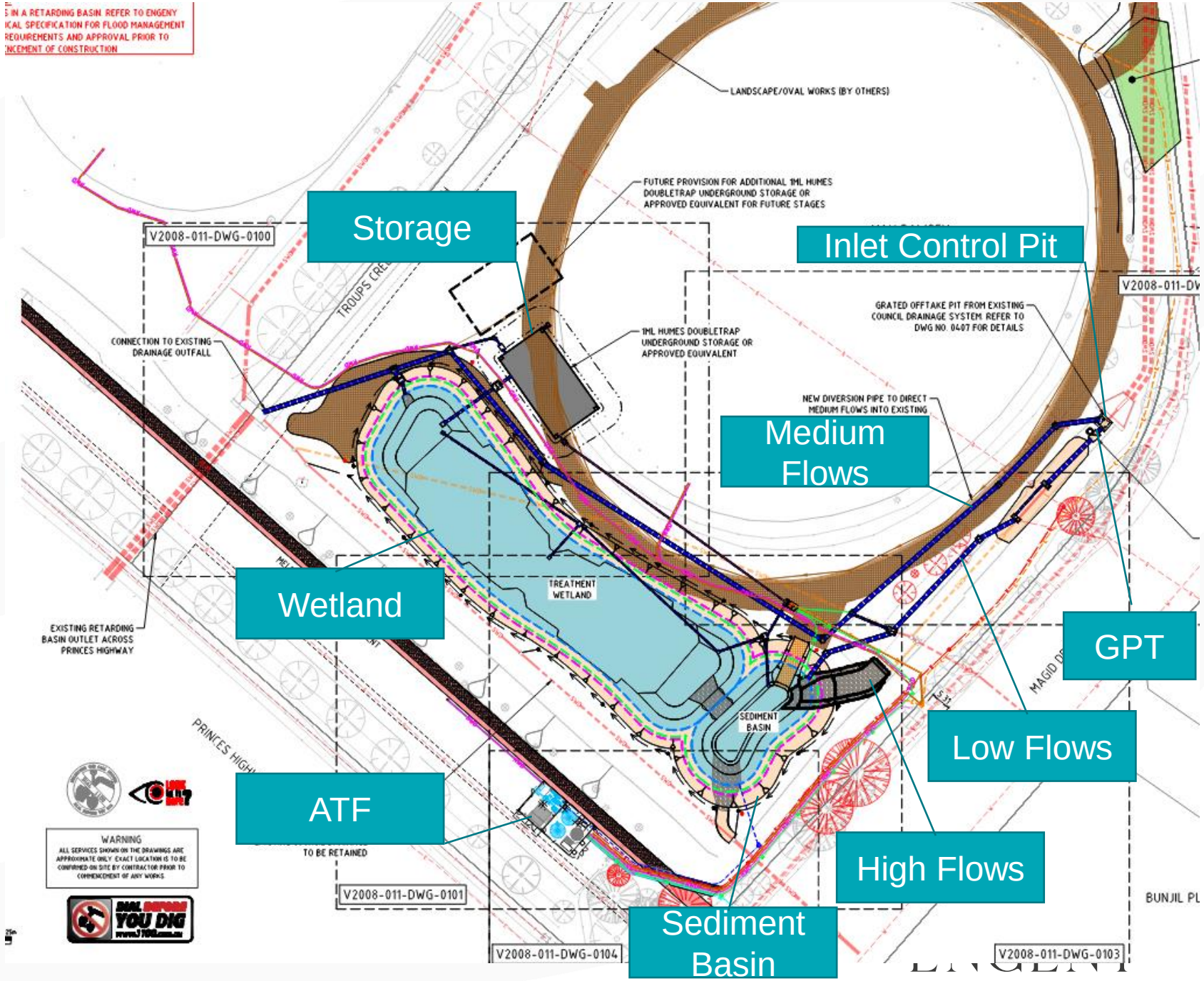
Project Stakeholders

- Community
  - Involved through all phases of the project timeline
- Project Sponsors / Funding Partners
  - DEECA(formerly DELWP) - $1.7M
  - Melbourne Water- $550K
  - South East Water- $200K
  - Council’s contribution- $ 3.55M
  - Total project budget to deliver stage 1A is approx. $6M

City of Casey

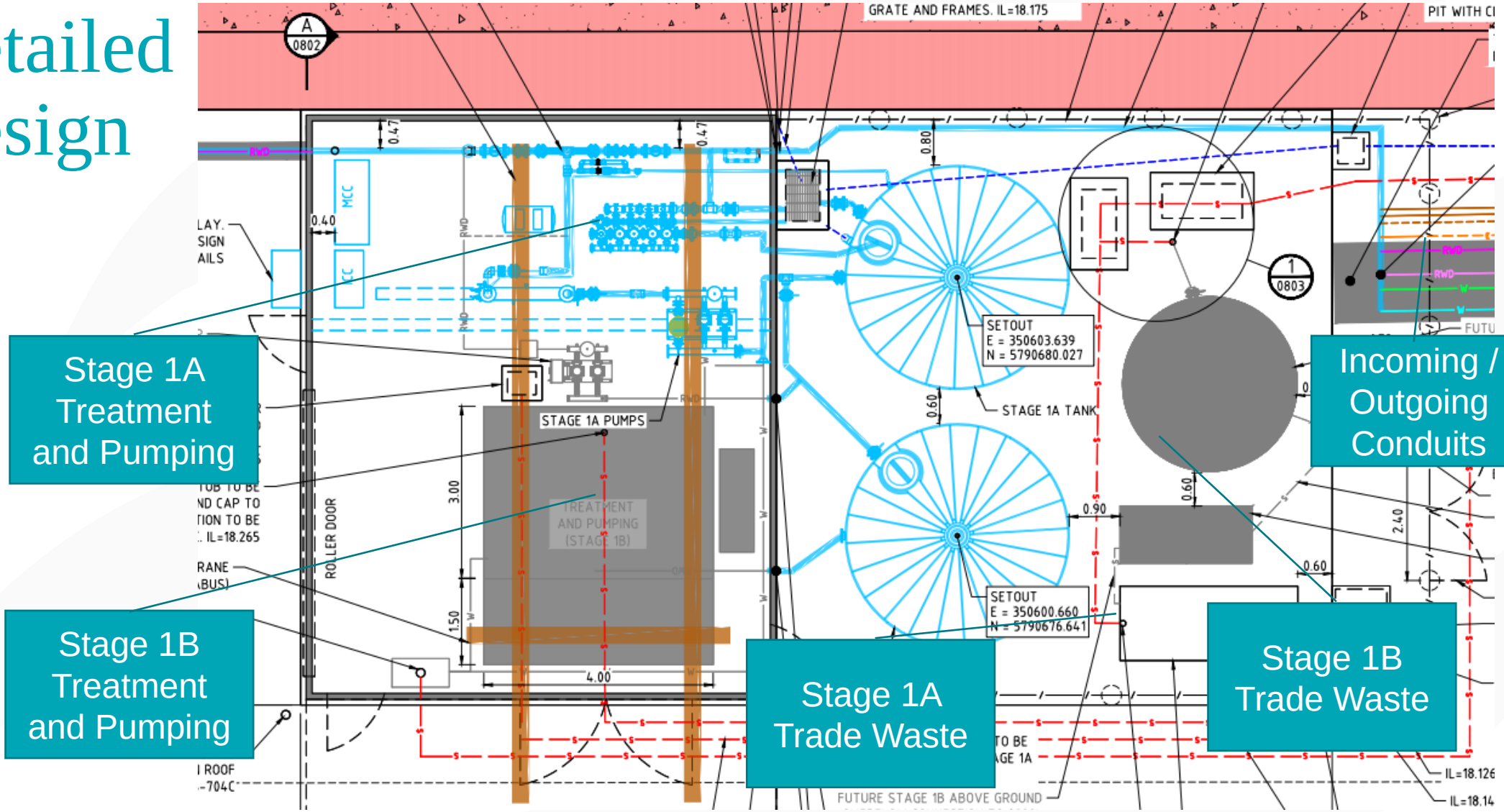
ENGENY

Detailed Design



City of Casey

Detailed Design



City of Casey

ENGENY

Stakeholder Inputs

Stakeholder	Design inputs
City of Casey - Design & Construction - Water Planning - Open Space / Recreation - Maintenance	– Aesthetic outcomes – Integration with sportfield upgrade – Irrigation operation and monitoring – Maintenance of structures
Melbourne Water (MW) - SWH application - Build over asset application - New connection application - Review of proposed design	- Failure modes and effects assessment - Connection to and replacement of existing MW asset - Retarding basin storage evaluation - Feedback on detailed design
South East Water - Asset Ownership (Stage 1B) - Trade Waste	- Heavily involved in the design of the Advanced Treatment Facility (ATF) to ensure design suits their maintenance and operation requirements after asset handover (Stage 1B) - Approval process to direct wastewater from ATF to sewer system
EPA	Confirm water quality requirements - Stage 1A (National stormwater harvesting guidelines) - Stage 1B (Potable)

Stakeholder Engagement

- Early engagement to define potential conflicts
- Define champions within each organisation
- Regular tracking of a feedback and comments register
- Workshops with multiple stakeholders
- Regular meetings to discuss project progress to ensure all parties expectations are aligned – no surprises

City of Casey

ENGENY

Before Detailed Design

- Power supply location
- Location of sediment dry out area
- Hand over
    - When (if a multi-stage project)
    - What (where does it start and stop)
    - Specific requirements
        - Monitoring and control (e.g. IRRINET vs SCADA)
        - Products
        - Operation and Maintenance
    - Water quality treatment standard
- Approvals
    - Additional approvals / investigations required if work is in a retarding basin!

City of Casey

ENGENY

Construction

- Commencement Date – April 2022
- Construction Quality Assurance (CQA) role

City of Casey

ENGENY

Construction

City of Casey

Questions

ENGENY

ENGENY

www.engeny.com.au