



**St George Motor Boat Club**

## **Underground Petroleum Storage Systems (UPSS) Fuel System Operation Plan**

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## **UPSS FUEL SYSTEM OPERATION PLAN GUIDE**

This Fuel System Operation Plan (FSOP) Guide outlines the information with examples required by the Protection of the Environment Operations (Underground Petroleum Storage Systems) Regulation 2019 (the UPSS Regulation), prepared under the Protection of the Environment Operations Act 1997 (the Act).

In accordance with Part 4, Clause 18 of the UPSS Regulation, an underground petroleum storage system (UPSS) must not be used unless a Fuel System Operation Plan (FSOP) is in place for the site.

The UPSS Regulation requires the FSOP to contain the procedural documents and records specific to the UPSS. The FSOP must be accessible on site so that practical written procedures are on hand to monitor the UPSS in order to detect leaks and spills and take appropriate action if they are identified.

### **UPSS Regulation Requirements**

Clause 18 of the Protection of the Environment Operations (Underground Petroleum Storage Systems) Regulation 2019 (UPSS Regulation) requires the development of a Fuel System Operation Plan (FSOP) for premises with an underground petroleum storage system. The appropriate regulatory authority may audit the FSOP.

The FSOP must be accessible on the storage site and must contain the documented procedures and records relating to the UPSS that are specified in Clause 18 of the UPSS Regulation 2019. Extracts from Clause 18 (and the sections of this folder where you can store your documents) have been summarised for easy reference.

#### **Clause 18 (1)**

a storage system must not [be used otherwise than in accordance with a Fuel System Operation Plan that] is in place in relation to the storage system.

#### **Clause 18 (2)**

“A storage system’s Fuel System Operation Plan must include:

- A loss monitoring procedure (Section B)
- An incident management procedure (Section C)
- A maintenance schedule (Section D)
- The current ‘built in’ drawings for the system (Section E)
- A plan of the storage site... (Section F)
- A copy of each list of industry standards [that have been followed] ... (Section G)
- A copy of all specifications [used] ... (Section H)
- An inventory of employee induction and management training.....” (Section D).
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#### **Clause 18 (3)**

“...information to be included in the Fuel System Operation Plan...” (Section A)

**Clause 18 (6)**

“A storage system’s Fuel System Operation Plan

- must comply with EPA guidelines, and
- must be updated as occasion requires, and
- must be kept on the storage site.”

The Protection of the Environment Operations (Underground Petroleum Storage Systems) Regulation 2019 can be accessed via [www.legislation.nsw.gov.au](http://www.legislation.nsw.gov.au).

The NSW EPA Underground Petroleum Storage Systems guideline can be accessed via [www.epa.nsw.gov.au/contaminated-land/20p2700-underground-petroleum-storage-systemsguidelines](http://www.epa.nsw.gov.au/contaminated-land/20p2700-underground-petroleum-storage-systemsguidelines) or phone the Environment Line on 131 555.

## Fuel System Operation Plan

Site Details	
Site Name	The St George Motor Boat Club
Site Street Address	2 Wellington Street, Sans Souci, NSW, 2229

Land Title Particulars	
Lot number	1 & 2
DP Number	1012626 & 956068

Person Responsible Details	
Person Responsible	Adrian Vermeulen
Job Title	CEO
Postal Address	2 Wellington Street, Sans Souci, NSW, 2219
24 Hour Contact	0418 667 541

Access and Security Information
<ul style="list-style-type: none"><li>- Access to UPSS is via the lower car park at the northern end adjacent to Anderson Park. Access is open and there are no gates or locks obstructing access.</li><li>- Access to fuel bowser on the fuel berth is as follows during club operating hours is either by the club duty manager 0414 824 014 or the marina manager 0409 090 712</li><li>- For emergency Kogarah Fire Brigade 9493 1021 and Sans Souci Water Police have FOB tags for access.</li></ul>

Location of all records kept in accordance of the UPSS Regulation 2019
Part 5, Clause 22: Record of significant modifications <ul style="list-style-type: none"><li>- All information is compiled and stored in the marina office.</li></ul>
Part 5, Clause 25: Incident Log <ul style="list-style-type: none"><li>- All incidents are recorded in the incident register located in the marina office and are reported to the relevant agencies. The Environment Line 131 555</li></ul>
Part 6, Clause 26 and Clause 27: Documents to be kept for seven years from date of creation and for seven years after date of decommissioning. <ul style="list-style-type: none"><li>- Documents are kept in the St George Motor Boat Club achieve room which is located near the laundry room.</li></ul>

## **Section A: Storage System Information**

### **Storage System Information for UPSS**

**Table 1 UPSS Storage System Information**

<b>Underground storage tank I.D.</b>	<b>Fuel Type</b>	<b>Capacity (Litres)</b>	<b>Tank Composition</b>	<b>Date commissioned</b>
Tank 1	ULP 95	10,000	Steel	
Tank 2	DIESEL	10,000	Steel	

## **Section B: Loss Monitoring System**

The St George Motor Boat Club loss monitoring is completed in two ways via manual wet stock reconciliation & statistical inventory analysis.

Manual wet stock reconciliation is completed by manually dipping each tank using a dip stick. The stock on hand is then compared to readings taken from each bowser to determine the amount sold and any variances are noted. The UST dipping register is located in the marina office and completed twice a day and records of this are stored on the cloud through the Leighton O'Brien portal. The SIRA reports are checked daily for any variances that need to be reported.

Statistical Inventory Reconciliation Analysis (SIRA) is completed daily and a monthly report is also given through a third party called Leighton O'Brien. If any variances are found or a fail notification is returned an investigation is conducted and any incidents reported.

Both loss monitoring systems are a calculation or reconciliation based on the following data inputs:

1. The amount of fuel sold
2. The amount of fuel delivered
3. The amount of fuel remaining in stock.

The following procedure is currently used by ST George Motor Boat Club to assess variance in product volumes and determine the source of the potential leaks:

1. A secondary marina member is tasked with manually checking the dips and meter readings, if human error is responsible the event is corrected and no further action is taken. Daily tolerances are between 0 – 50L. If the results are below acceptable tolerances the following may be carried out:
  - Check calibration of dispensers;
  - Check supply volumes; check supply conditions (loss may have occurred due to temperature variations);

2. If no human error is found, a visual inspection of the following is completed:
  - booster pumps sumps,
  - fuel shut off valve top of A arm gangway,
  - fuel shut off valve at A arm gate,
  - fuel lines running from A arm gate to fuel berth gate
  - Fuel bowser sumps
  - The secondary contained underground storage tanks (USTs) shall have the interstitial space checked or tested;
  - Tank pit observation wells are checked (visual observation);
  - Groundwater monitoring wells are checked (visual observation).
  
3. Should the visual inspection fail to yield any results then the St George motor Boat Club would engage a duly qualified person to complete the following tests:
  - Sampling of Ground Monitoring Wells
  - Equipment Integrity Testing (EIT)
  - Tank Integrity Testing (TIT)

## **Section C: Incident Management Procedure**

The incident management procedure must set out the steps to be taken to verify, stop and mitigate any impact from a UPSS leak or spill on human health and the environment.

Where a leak or spill at a UPSS is causing or is likely to cause material harm to the environment or human health, the person responsible must notify the appropriate regulatory authority of the incident immediately (Part 5.7 of the POEO Act).

If the incident is life threatening to human health or the environment call "000" for fire, ambulance or police. All pollution incidents must be reported to Georges River Council (02) 9330 6400 and the Environmental Protection Authority on 131 555.

### **Pollution Control System:**

The St George Motor Boat Club site has the following in place:

- Heavy Duty Impact Bollards to protect booster pumps,
- Spill containment sumps under bowsers and booster pumps
- Double walled piping from UST to bowsers
- Raised surface at UST fill points which acts as bunding
- Spill Kits

### Minor Spills

Minor spills are considered small in volume (less than 5 litres) of product. The following steps are to be taken:

<b>1. Emergency stop buttons and valves must be activated. These must not be deactivated until an investigation is completed.</b>
<b>2. Call emergency services if required and notify marina / club management.</b>
<b>3. Safe guard yourself and those around you by ensuring there is not imminent danger.</b> <ul style="list-style-type: none"><li>- Apply necessary PPE</li><li>- Cordon off all areas</li><li>- If incident is near the UST keep people, vehicles and all sources of ignition at least 15 to 20 meters away</li></ul>
<b>4. Isolate leak if possible. Prevent spill from spreading / entering drains or waterways by using spill kit contents.</b> <ul style="list-style-type: none"><li>- Absorbent Peat</li><li>- Booms</li><li>- Absorbent Pads</li></ul>
<b>5. Dispose of used spill kit material into a contaminated waste bin and dispose of through a certified collection agency.</b>
<b>6. Ensure the leak Notification Form is used if pollution has originated from UPSS</b>

### Major Spills

Major spills are considered anything over 10 litres of product. The following steps are to be taken:

<b>1. Emergency stop buttons and valves must be activated. Mains power to marina and lower carpark switched off. Circuit breaker for the marina is located on wellington street behind the main office under the roller shutter door. Circuit breakers M14, M15 and M16.</b>
<b>2. Call emergency services on "000"</b>
<b>3. Safe guard yourself and those around you by ensuring there is not imminent danger.</b> <ul style="list-style-type: none"><li>- Apply necessary PPE</li><li>- Cordon off all areas with cones / spill kit bins</li></ul>
<b>4. Keep people, vehicles and all sources of ignition at least 15 to 20 meters away and eliminate any possible sources of ignition</b>
<b>5. Evacuate the site and advice all people to assemble at the Evacuation Assembly Areas. This is at the corner of Wellington Street and Plimsoll Streets.</b>
<b>6. Prevent fuel from spreading and entering drains by using spill kits</b>
<b>7. Deploy floating booms in the water around storm runoff drains to ensure any spills that do leak into drains are captured.</b>
<b>8. Dispose of used spill kit material into a contaminated waste bin and dispose of through a certified collection agency.</b>
<b>9. Ensure the leak Notification Form is used if pollution has originated from UPSS</b>

**10. Engage a duly qualified person should any repairs to UPSS or plant be required as a result of the spill.**



**Fuel Direct is the current supplier of fuel at the St George Motor Boat Club,  
below is their current SAFETY OPERATION PLAN**

Issue date Jan 2024: Next review date Jan 2025

**FUEL DIRECT SOP**

**Delivery Procedure**

- Ensure site assessment and Safe Journey Plan have been completed
  - If site assessment has not been completed, please call operations staff
  - Park vehicle outside of site and assess before entering
- Arrive at site, park at or near fill point
- Check address, right site, right product
- Contact site operators as nominated and ensure they are aware of delivery and comply with any procedures they must perform before delivery
- Place safety cones
- Ensure operator has controlled the environment by preventing any cars, mobile phones, hazards into the area
- **Check for ignition source (15-meter radius)**
- Ensure all ignition sources are off and away (lights, pumps, batteries)
- Uncap tank to be filled (do not unlock all tank caps)
- **Dip tank, check ullage using S.F.L (record dip in dip book)**
  - Ensure the correct product will fit into the tank
  - *(Note: when dipping, make sure you wipe the dip stick before you dip. Simply just pulling out the dip stick and reading it will not give you an accurate read, you must first wipe the dip stick then dip the tank. **You MUST always dip tanks before unloading at ANY site.**)*
- Check vent is clear
- If pumping petrols, connect static leads
- Connect standpipes onto fill points
  - If there, connect vapour recovery standpipe, then connect vapour hose (unless delivering diesel only)
- Open drive-away bar
- Connect delivery hose to fill point (drop or pump)
- Check product grade twice
  - Tumbler
  - Site glass
  - Ground marker
- Refer to load plan for positive identification of product
- Refer to load plan for compartment amounts – ensure that compartment will fit, or how much of that compartment to deliver
- Check amounts of each compartment with load docket
- Discharge product at **low flow rates** if pumping in
- Pump at low rates and monitor vent to ensure vapour is discharging safely

- **Ensure no leaks and no hazards are present**
- **Commence delivery at normal flow rate**

- **Ensure tank is never filled above the safe fill levels**
- Driver must have complete observation of the delivery at all time and not be distracted

#### **Packing up procedure**

- Disconnect hose at the API and lift hose to empty product from it, then disconnect from the standpipe
- Disconnect tank fitting
- Do not cap hoses if the last product was spirits - put caps in toolbox or somewhere secure
- Cap off tank delivery point
- Pump jobs - close all valves' pump lever to stop position
- Secure all standpipes to truck
- Remove hoses to hose tray and put away delivery equipment
- Remove vapour hose from ground and stow on flame arrested
- Return all cones to their designated area
- Check truck, fittings, hoses and valves are secure
- Complete paperwork at site all safe and clear
- If needed, cross out BOL
- Write in SJP time of departure
- Complete 360 truck walk around to ensure everything is secured and put away

#### **Spills or Emergencies**

##### **Stop the Flow of Product**

- Any spills must be immediately cleaned up with the provided spill kit/equipment
  - Cover all nearby drains, manholes, or any access to water and/or environment using the provided spill kit and absorbent materials located in your truck. Try to contain the spill by creating a bunded area around the spill using the sausages in your spill kit
  - If the spill is major (cannot stop the flow of fuel, or fuel is exposed to fire hazards) call the fire brigade with information concerning: a. Spill location b. Product spilled
- c. Injuries d. Potential contamination e. Potential fire hazards
- Get clear and move people from the immediate area so that they are clear of danger (at least 25m in all directions). If it's a large spill, consider evacuation at least 300m downwind of the area
  - If it is safe to do so, take out the emergency procedures and BOL (Bill of Loading) from the driver-side door
  - The driver must contact a member of the operations team to advise them how much was spilled, at what customer site and how it occurred
  - The driver must then find someone on-site to advise them of the spill that occurred

- If possible, provide assistance to customer or emergency services, and the Fuel Direct Spill Response team. **Do not** attempt to walk through any spilled product at any time, and never leave the scene until it has been cleaned and contained.

**STOP THE FLOW!**

**CALL ISS FIRST RESPONSE CALL  
EMERGENCY SERVICES CALL FUEL  
DIRECT**

**EMERGENCY CONTACT NUMBERS:**

**FUEL DIRECT SPILL/ACCIDENT**

LACHLAN NICHOLLS	0400500235	1300 781 982
ASHLEY NICHOLLS	0455961925	1300 781 982
JASON BOWER	0447274652	1300 781 982

### **Environmental Incidents:**

In the event of a spill, tank leak or underground petroleum release that may result in discharge to the surrounding environment (i.e. stormwater, surface water or groundwater) the above procedure for major spill is to be followed and the area is to be made safe.

Part 5.7 of the Act requires the occupier of premises, the employer or any person carrying on the activity which causes a pollution incident to immediately notify each relevant authority (identified below) when material harm to the environment is caused or threatened.

The following procedure is to be followed for reporting a pollution incident:

Firstly, call 000 if the incident presents an immediate threat to human health or property. Fire and Rescue NSW, the NSW Police and the NSW Ambulance Service are the first responders, as they are responsible for controlling and containing incidents.

If the incident does not require an initial combat agency, or once the 000 call has been made, notify the relevant authorities in the following order:

- Georges River Council (02) 9330 6400
- The EPA Environment Line on 131 555
- The Ministry of Health via the local Public Health Unit 1300 066 055
- NSW SafeWork – phone 13 10 50

Under Section 150 of the Act, relevant information about a pollution incident consists of the following:

- a) the time, date, nature, duration and location of the incident,
  - b) the location where pollution is occurring or is likely to occur,
  - c) the nature, the estimated quantity or volume and the concentration of any pollutants involved, if known,
  - d) the circumstances in which the incident occurred (including the cause of the incident, if known),
  - e) the action taken or proposed to be taken to deal with the incident and any resulting pollution or threatened pollution, if known.
- Complete a Leak Notification Form, see <http://www.environment.nsw.gov.au/upss.htm>
  - Arrange for maintenance contractor and UPSS integrity contractor to attend site to rectify the situation.
  - Arrange for environmental consultant to attend site to assess incident and work in consultation with government officer to rectify / remediate the incident.

## **Section D: Maintenance Schedule**

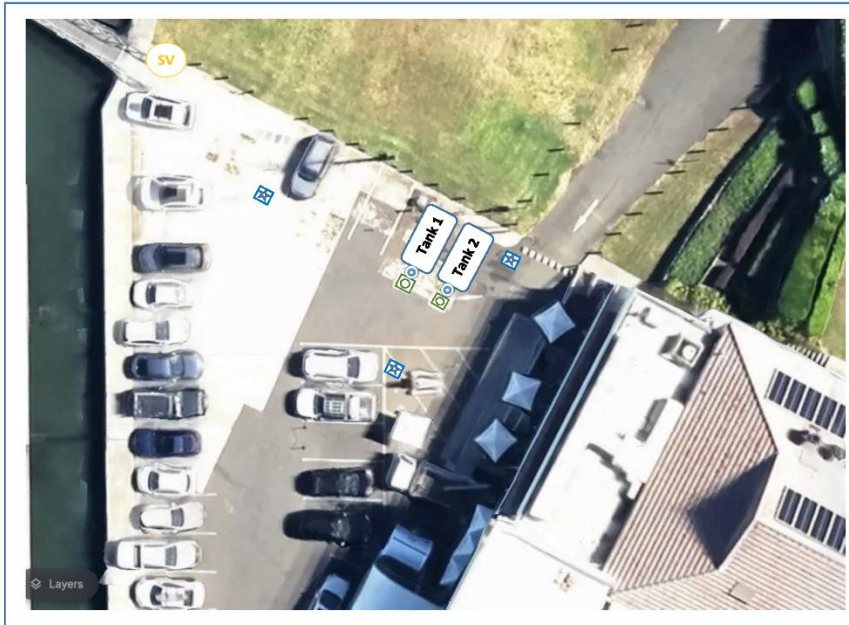
UPSS maintenance is carried out by duly qualified contractors which is monitored by marina management.

All certification, compliance documentation and routine maintenance records are kept online and where applicable in hard copy for in the marina office located at the St George Motor Boat Club. Below are the current maintenance schedule & frequency:

<b>Item</b>	<b>Schedule</b>	<b>Responsibility</b>	<b>Contractor</b>
Fuel pump cleaning	Daily	Marina Staff	
Fuel pump hoses, fittings and pumps.	6 months	Leighton OBrien	Libby Dyde
Fuel pump sump inspection	6 months	Marina Staff	
Fuel Pump calibration	6 months	Leighton Obrien	Libby Dyde
Fuel line inspection pits	Weekly	Marina Staff	
Booster Pump / sumps	Monthly	Marina Staff	
Tank & line integrity tests	Yearly	Leighton O'Brien	Libby Dyde
Underground Monitoring Wells	6 months	Leighton Obrien	Libby Dyde
Inventory Reconciliation	Daily	Marina Staff	
Fill point inspections	Daily	Marina Staff	
Dip stick inspection	Daily	Marina Staff	
Employee Training	As Completed	Marina Industry Association / Marina Management	

## Section E: Storage Plan

### Fuel System Operating Plan (1)

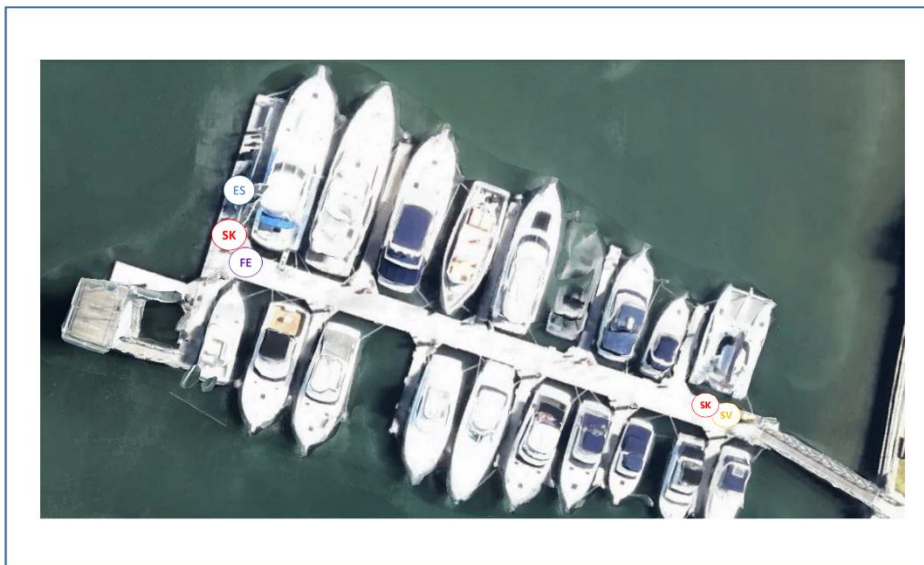


#### Legend

	Monitoring Well
	Man Hole
	Fill Point
	Emergency Stop
	Spill Kit
	Shut Off Valve
	Fire Hose
	Fire Extinguisher



### Fuel System Operating Plan (2)

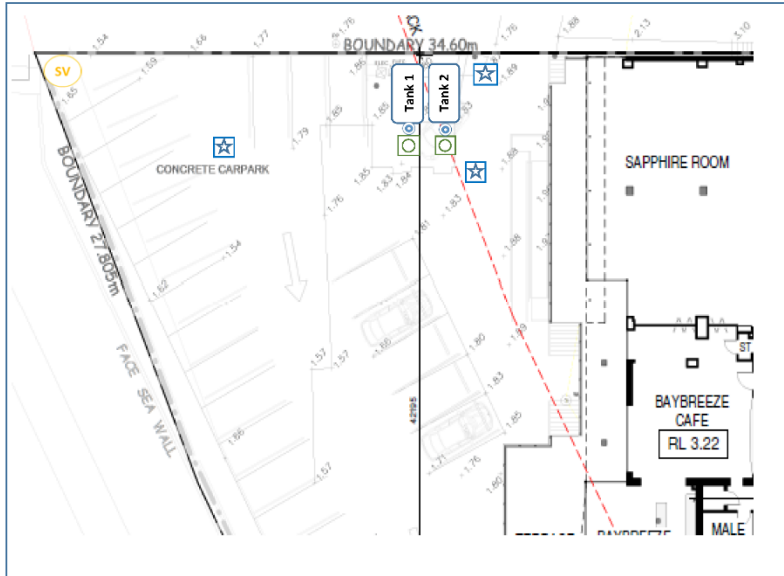


#### Legend

	Monitoring Well
	Man Hole
	Fill Point
	Emergency Stop
	Spill Kit
	Shut Off Valve
	Fire Hose
	Fire Extinguisher



## UPSS CURRENT DRAWINGS FOR THE SYSTEM

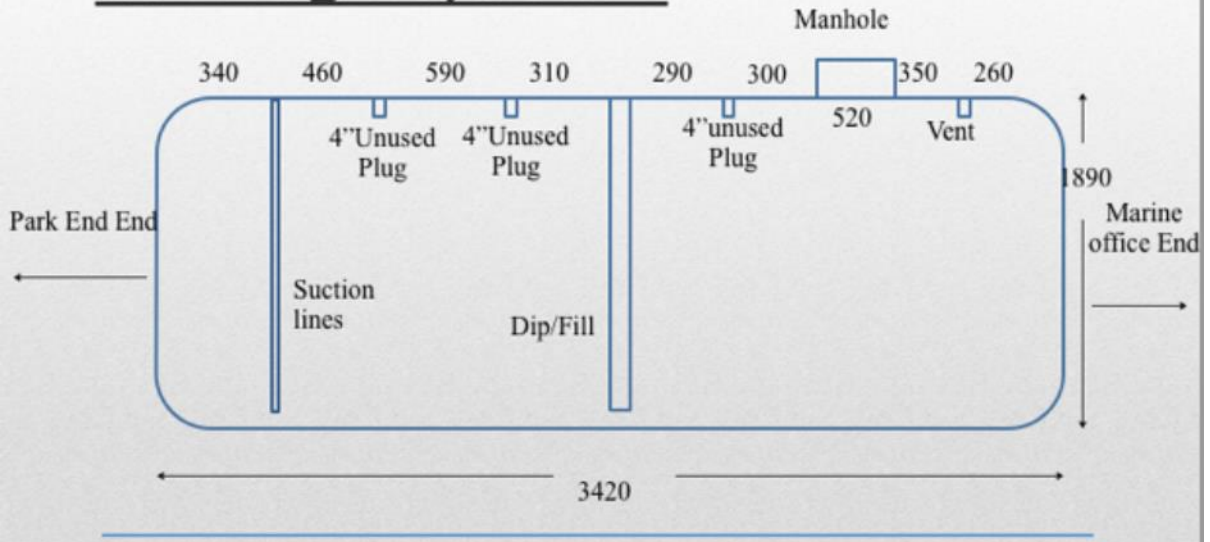


### Legend

	Monitoring Well
	Man Hole
	Fill Point
	Emergency Stop
	Spill Kit
	Shut Off Valve
	Fire Hose
	Fire Extinguisher



# St George MBC Diesel Tank Survey 10,000Lt

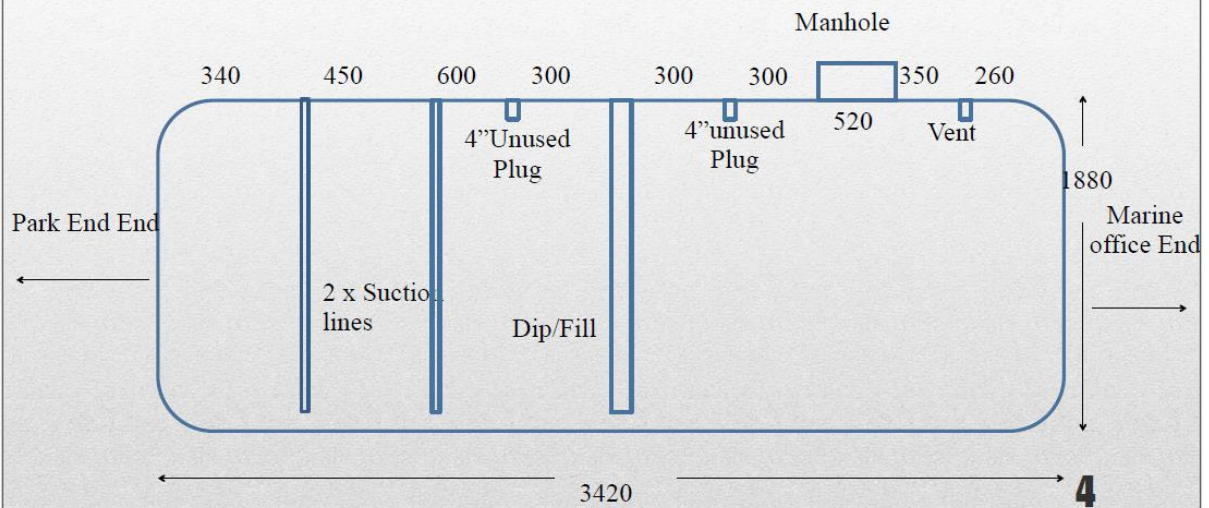


\* Please note all measurements are in "mm"



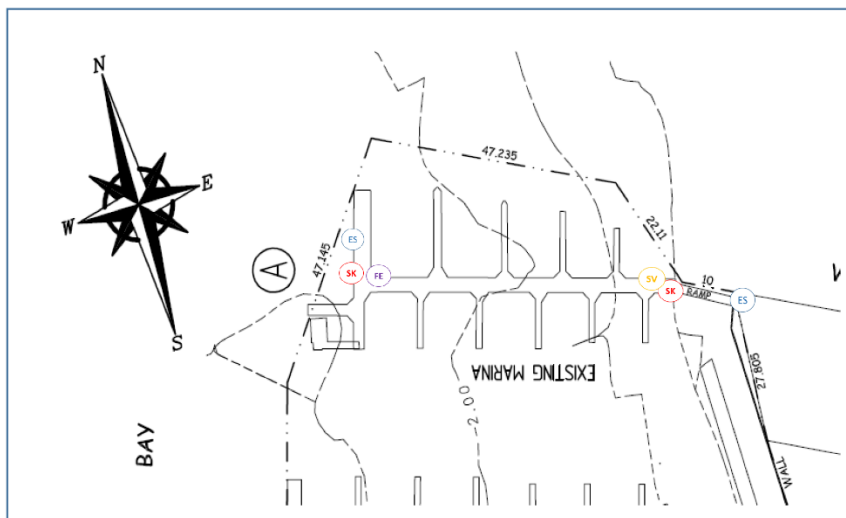
# St George MBC PULP Tank

## Survey 10,000Lt



\* Please note all measurements are in "mm"

### UPSS CURRENT DRAWINGS FOR THE SYSTEM



#### Legend

	Monitoring Well
	Man Hole
	Fill Point
	Emergency Stop
	Spill Kit
	Shut Off Valve
	Fire Hose
	Fire Extinguisher



## **Section F: Industry Standards**

The list of industry standards that have been followed in connection with each of the following:

- The design of the system
- The installation of the system
- The design of any modifications
- The implementation of any modifications

<b>Description</b>	<b>Standard</b>
The Design Installation and Operation of UPSS	AS 4897 - 2008
Steel Tanks for Flammable and Combustible Liquids	AS 1940 – 2017
Petroleum Products – Pipeline, Road, Tanker Compartment and Underground Tank Identification	AS 4977 - 2028
Installation of Groundwater Monitoring Wells & Groundwater monitoring.	Guidelines for the Assessment and Management of Groundwater Contamination, NSW March 2007 Australian Water Quality Guidelines for Fresh and Marine Waters, ANZECC 2000

## **Section G: Staff Training & Records**

Staff training records are kept in the marina office located in the lower car park of the St George Motor Boat Club located at 2 Wellington Street, Sans Souci, NSW, 2219.

As part of the Marinas Industry Association all staff are put through various courses through the Marina Training Institute. In this case all staff have completed the “Oil Spill Response Course” and are required to revisit this every two years.