

# Swalecliffe Steering Group

28 February 2023



from  
**Southern  
Water** 

# Agenda

- Tankerton buoy & Sampling – Nick Mills
- Beachbuoy modelling – Nick Mills
- Taskforce catchment slide – Jon Yates
- Reconfiguration of Swalecliffe WTW – Jon Yates
- Swalecliffe Short Sea Outfall – Jon Yates
- Swalecliffe Brook proposal – John Mealey
- Operational update – Swalecliffe Wastewater Treatment Works (WTW) – Andy Webb
- AOB



# Beachbuoy modelling

Nick Mills



from  
**Southern  
Water** 

The Southern Water logo consists of three stylized, wavy blue lines of varying lengths, positioned to the right of the text.

# Water quality testing buoys



## Update February 2023:

- Water quality buoys are still operational, despite some minor issues with hardware
- Calibration is ongoing and proven to be very challenging and we are reviewing the data with an independent expert
- We are preparing a technical document that we will publish, this will include the calibration data
- We plan to hold a pre-briefing with key stakeholders ahead of data going live
- We are aiming for April 23 to go live with data on our website and alongside Havant Borough Council



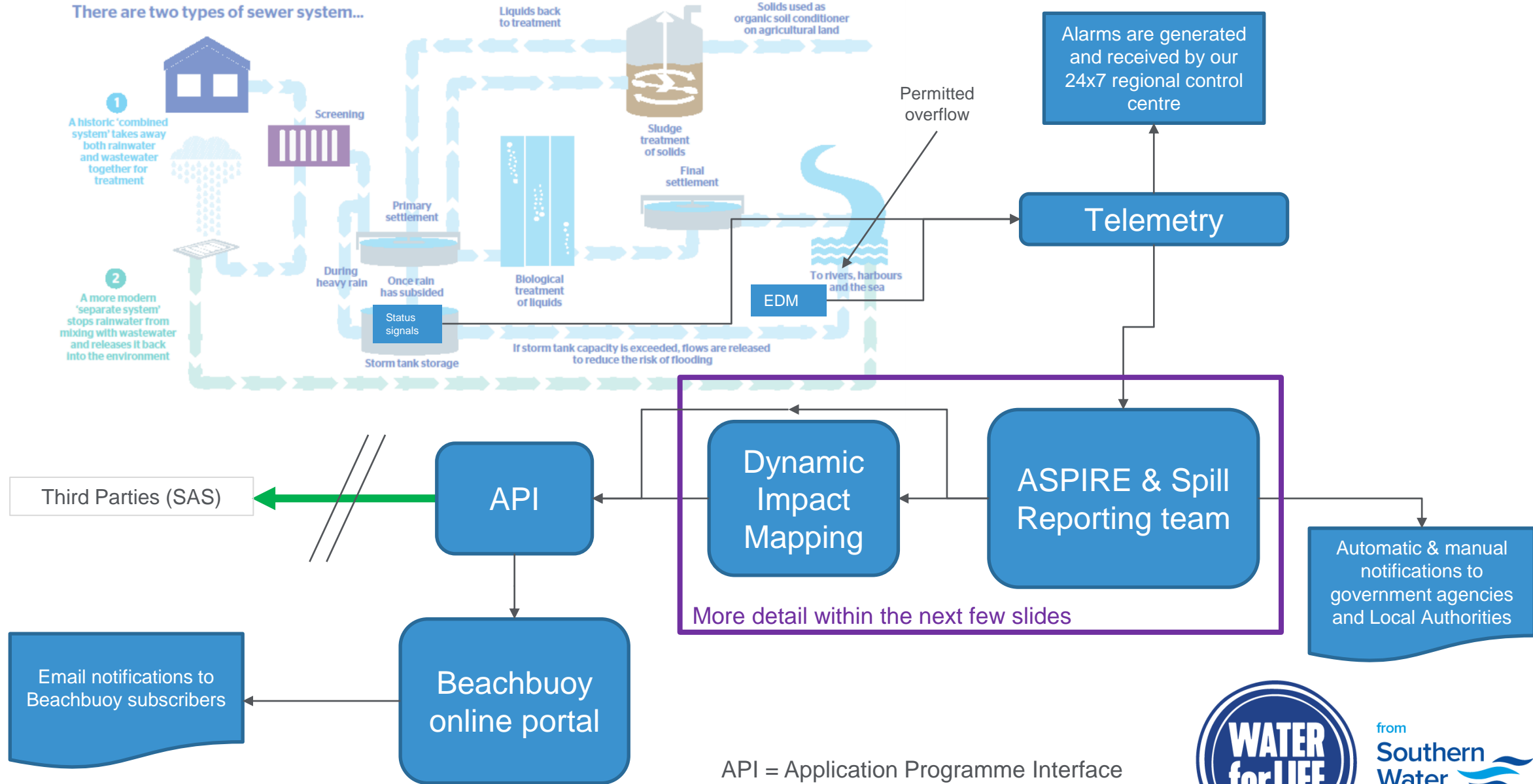
# How does Beachbuoy work?



from  
**Southern  
Water** 

The Southern Water logo consists of three stylized, wavy blue lines of varying lengths, positioned to the right of the word "Water".

# How spill reporting and Beachbuoy works at high level



API = Application Programme Interface  
 EDM = Event Duration Monitors



# Swalecliffe Pathfinder Update

Jon Yates



from  
**Southern  
Water** 



# Swalecliffe Catchment – Pathfinder Activity

## Misconnections



21 misconnections identified  
reviewed and 15 opportunities  
identified

| Rid Ref. | CSO Sub-Catchment                  | Pipe Dia. (mm) | Node Type       | Genuine Opportunity? | Priority |
|----------|------------------------------------|----------------|-----------------|----------------------|----------|
| 166 1705 | London Road Whitstable CEO         | ?              | CSO             | N                    | N/A      |
| 166 6803 | Northwood Road Whitstable No 2 CSO | 300            | CSO             | N                    | N/A      |
| 165 081D | Diamond Road Whitstable CEO        | 750            | Dummy Manhole   | Y                    | H        |
| 166 350D | Diamond Road Whitstable CEO        | 100            | Dummy Manhole   | Y                    | H        |
| 166 5853 | Northwood Road Whitstable No 1 CSO | 300            | Manhole         | ?                    | L        |
| 166 4506 | Diamond Road Whitstable CEO        | 100            | Manhole         | Y                    | H        |
| 167 8051 | Northwood Road Whitstable No 2 CSO | 225            | Manhole         | Y                    | M        |
| 066 6709 | Diamond Road Whitstable CEO        | 150            | Manhole         | Y                    | L        |
| 066 8904 | Diamond Road Whitstable CEO        | 225            | Manhole         | Y                    | H        |
| 166 4502 | Diamond Road Whitstable CEO        | 225            | Manhole         | Y                    | M        |
| 065 6101 | Diamond Road Whitstable CEO        | ?              | Manhole         | Y                    | L        |
| 065 5003 | Diamond Road Whitstable CEO        | ?              | Manhole         | Y                    | M        |
| 066 5403 | Diamond Road Whitstable CEO        | 225            | Manhole         | N                    | N/A      |
| 165 8110 | Diamond Road Whitstable CEO        | 50             | Manhole         | Y                    | L        |
| 167 1051 | Diamond Road Whitstable CEO        | 175            | Manhole         | Y                    | M        |
| 066 9303 | Diamond Road Whitstable CEO        | 225            | Manhole         | Y                    | M        |
| 166 1502 | Diamond Road Whitstable CEO        | 225            | Manhole         | Y                    | M        |
| 466 045P | Swalecliffe CSO/Swalecliffe SSO    | 300            | Pumping Station | N                    | N/A      |
| 166 090P | Diamond Road Whitstable CEO        | 1050           | Pumping Station | N                    | N/A      |
| 166 1402 | Diamond Road Whitstable CEO        | 225            | Manhole         | Y                    | H        |
| 066 7802 | Diamond Road Whitstable CEO        | 225            | Manhole         | Y                    | H        |

## Interventions

1. Optimisation
2. Misconnections
3. SuDS Schemes
4. Planters & Water Butts
5. Modelling

## Whitstable Library – SuDS Scheme

**Living Wall** - framework for climbing plants, to incorporate existing library sign.

**SuDS planter** takes water from downpipe/library roof.

Existing gullies - water diverted into raingardens or tree pits.

Existing road falls towards SE side (away from edge with library forecourt) - potential to collect SW from road gullies and feed into SuDS?

**Raingarden** with amended drainage connection - diverts surface water run-off into SuDS with overflow back to existing below ground drainage.

**Ornamental planting** with gravel / boulder base: Boulders and gravel to line the base of the swale, to reflect the coastal location and mirror materials and textures found on the nearby beach. Planted with ornamental grasses for year-round structure and visual interest.

**Design for ecology**: Use of flowering perennials within swales will attract pollinating insects with further opportunity to provide 'bug hotel' shelters areas using logs and other organic materials.

**Southern edge** - potential for raingardens along edge with road (NB maintain access for vehicles stopping here?).

## Cornwallis Circle Recreation Ground – SuDS Scheme

**Ornamental planting** with gravel / boulder base: Boulders and gravel to line the base of the swale, to reflect the coastal location and mirror materials and textures found on the nearby beach. Planted with ornamental grasses for year-round structure and visual interest.

**Design for ecology**: Use of flowering perennials within swales will attract pollinating insects with further opportunity to provide 'bug hotel' shelters areas using logs and other organic materials.

**Proposed tree** suitable for SuDS: E.g. Acer x freemanii provides visual seasonal variation and can cope with wet and dry conditions.

Swale vegetated with wildflower turf.

**Option 2**

- Perimeter swales with tree planting
- Rain garden / wild wet meadow
- Open space retained with connecting board walks / bridges

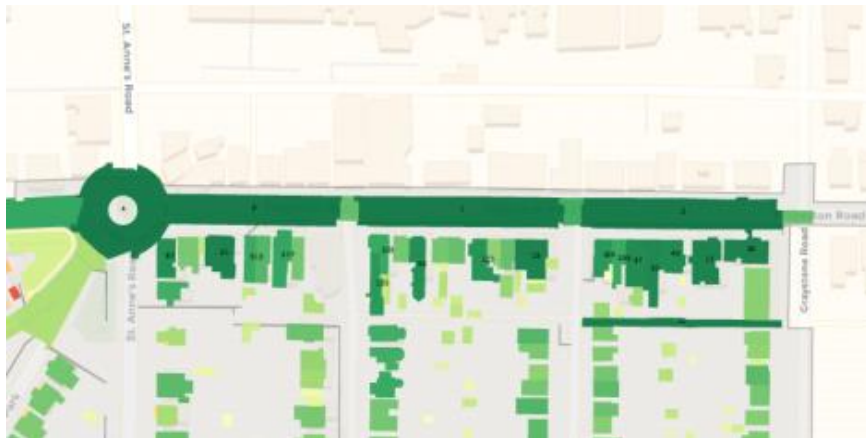
**Amenity use**: Timber board bridges span the swales linking to the central open space to improve permeability and access to the park from the east and west. These would create new permanent connections and would affect existing balustrade fencing.



# Swalecliffe Catchment – Pathfinder Activity

## Planters and Water Butts – Slowing the flow

| Interventions             |
|---------------------------|
| 1. Optimisation           |
| 2. Misconnections         |
| 3. SuDS Schemes           |
| 4. Planters & Water Butts |
| 5. Modelling              |



Northwood Road 1&2



Tankerton Circus

|             | Low | High |
|-------------|-----|------|
| Planters    | 8   | 30   |
| Water Butts | 135 | 538  |

assumptions based on planters at commercial properties, water butts at domestic.  
 Low is assuming 1 water butt per property with 50% uptake.



# Swalecliffe Reconfiguration & Short Sea Outfall

Jon Yates

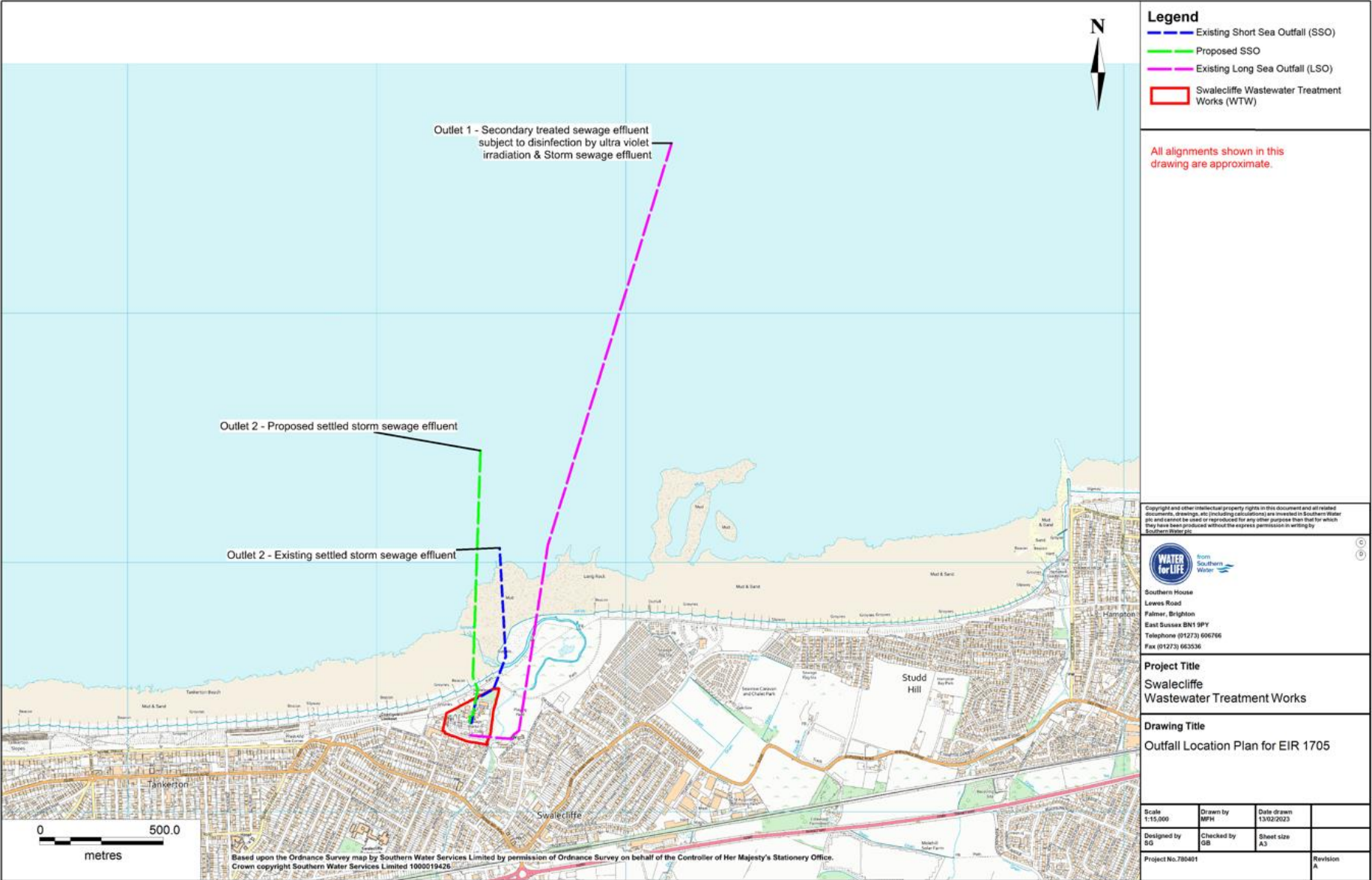


from  
**Southern  
Water** 





# Swalecliffe Short Sea Outfall



**Legend**

- Existing Short Sea Outfall (SSO)
- Proposed SSO
- Existing Long Sea Outfall (LSO)
- Swalecliffe Wastewater Treatment Works (WTW)

All alignments shown in this drawing are approximate.

Copyright and other intellectual property rights in this document and all related documents, drawings, etc (including calculations) are reserved in Southern Water plc and cannot be used or reproduced for any other purpose than that for which they have been produced without the express permission in writing by Southern Water plc.

**WATER for LIFE** from Southern Water

Southern House  
Lewes Road  
Falmer, Brighton  
East Sussex BN1 9PY  
Telephone (01273) 696766  
Fax (01273) 663536

**Project Title**  
Swalecliffe Wastewater Treatment Works

**Drawing Title**  
Outfall Location Plan for EIR 1705

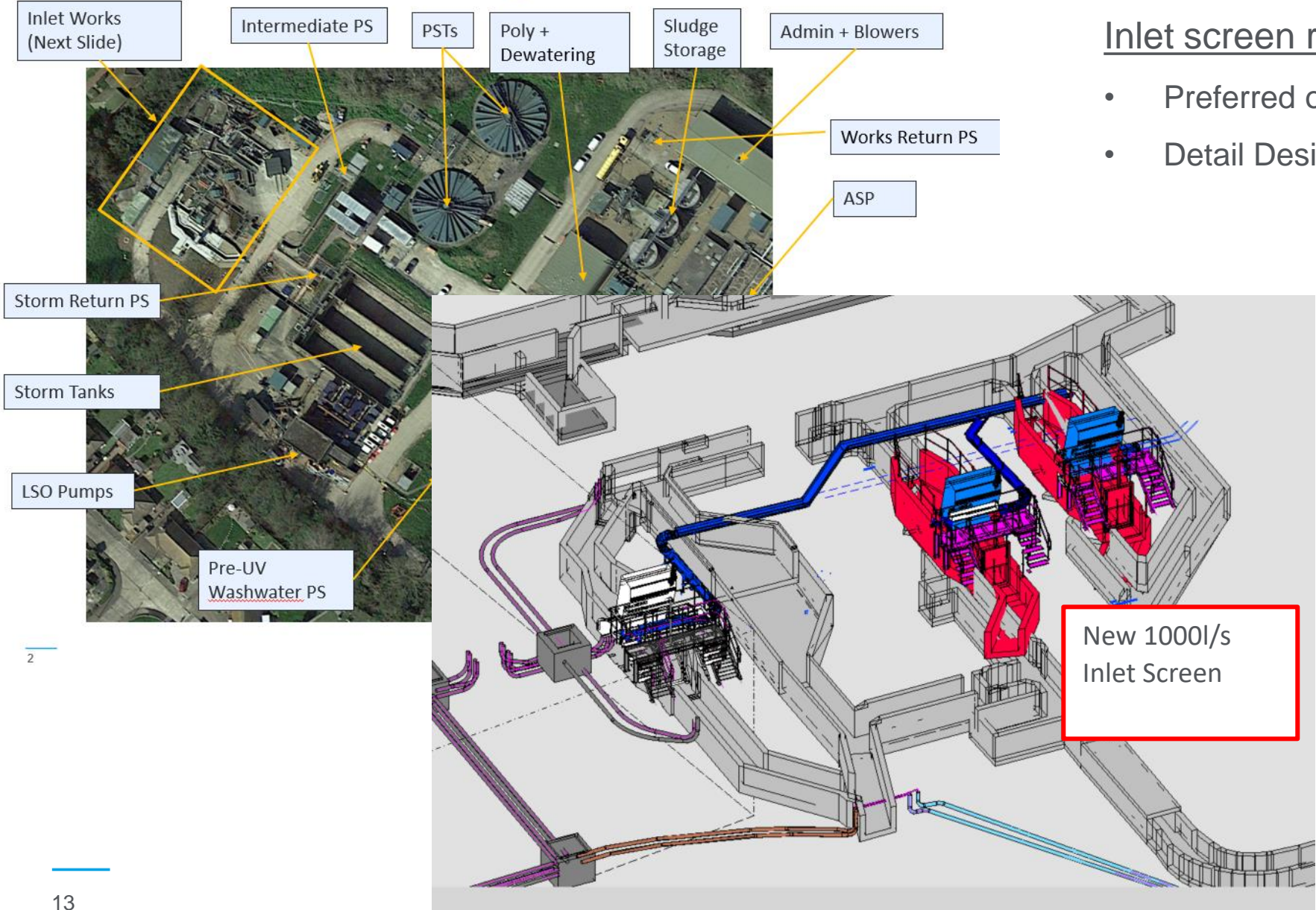
|                    |                  |                          |  |
|--------------------|------------------|--------------------------|--|
| Scale<br>1:15,000  | Drawn by<br>MPH  | Date drawn<br>13/02/2023 |  |
| Designed by<br>SG  | Checked by<br>GB | Sheet size<br>A3         |  |
| Project No. 796491 |                  | Revision<br>A            |  |

- The Short Sea Outfall has hit a major milestone it has been confirmed that our Environmental Impact Assessment Screening has been accepted and we do not need to progress past Stage 1.
- The Marine Management Organisation is currently reviewing our licence application to carry out the works.
- In-depth archaeological investigations underway on site.





# Swalecliffe WTW – Screen replacement



## Inlet screen replacement

- Preferred option identified and being priced.
- Detail Design target start date July 2023





# Swalecliffe Brook update

Pathfinder activity



from  
**Southern  
Water** 

# Swalecliffe Brook improvement plans

- Last year, Southern Water commissioned river restoration experts, Five Rivers, to undertake a study for the ecological improvement of Swalecliffe Brook
- Five Rivers provided three different designs and the chosen option was Reach 3 – a £50k project, which is closest in location to the Brook where we're working
- In our engagement, we presented the proposal to CTFive People's Forum eco-group. The group had queries which we answered and were happy with the design. Natural England and the Environment Agency are also aware
- Five Rivers has now been commissioned to undertake this work and we're currently seeking consents and licensing agreements with regulators. We hope to start on site by late spring
- A detailed plan for the work is being produced, which we will share once finalised



# Swalecliffe Wastewater Treatment Works

Andy Webb



from  
**Southern  
Water** 

# Swalecliffe WTW – Operational Update

- **Odour and Customer Performance**
- Access to Envirosuite real time odour-monitoring system can still be made available to those who would like it.
- Complaints have reduced over the past 12 months – site associated complaints have been associated with odour – bulk of the reduction in the past 6 months.
- **Customer contacts remain low through the Swalecliffe dedicated contact route**
  - [Swalecliffeinformation@southernwater.co.uk](mailto:Swalecliffeinformation@southernwater.co.uk)
- Brook Road WPS operating as per new pumping control system, to confirm again – there is **no route** for storm flows to discharge into the brook from Swalecliffe WTW.



AOB



from  
**Southern**  
**Water** 



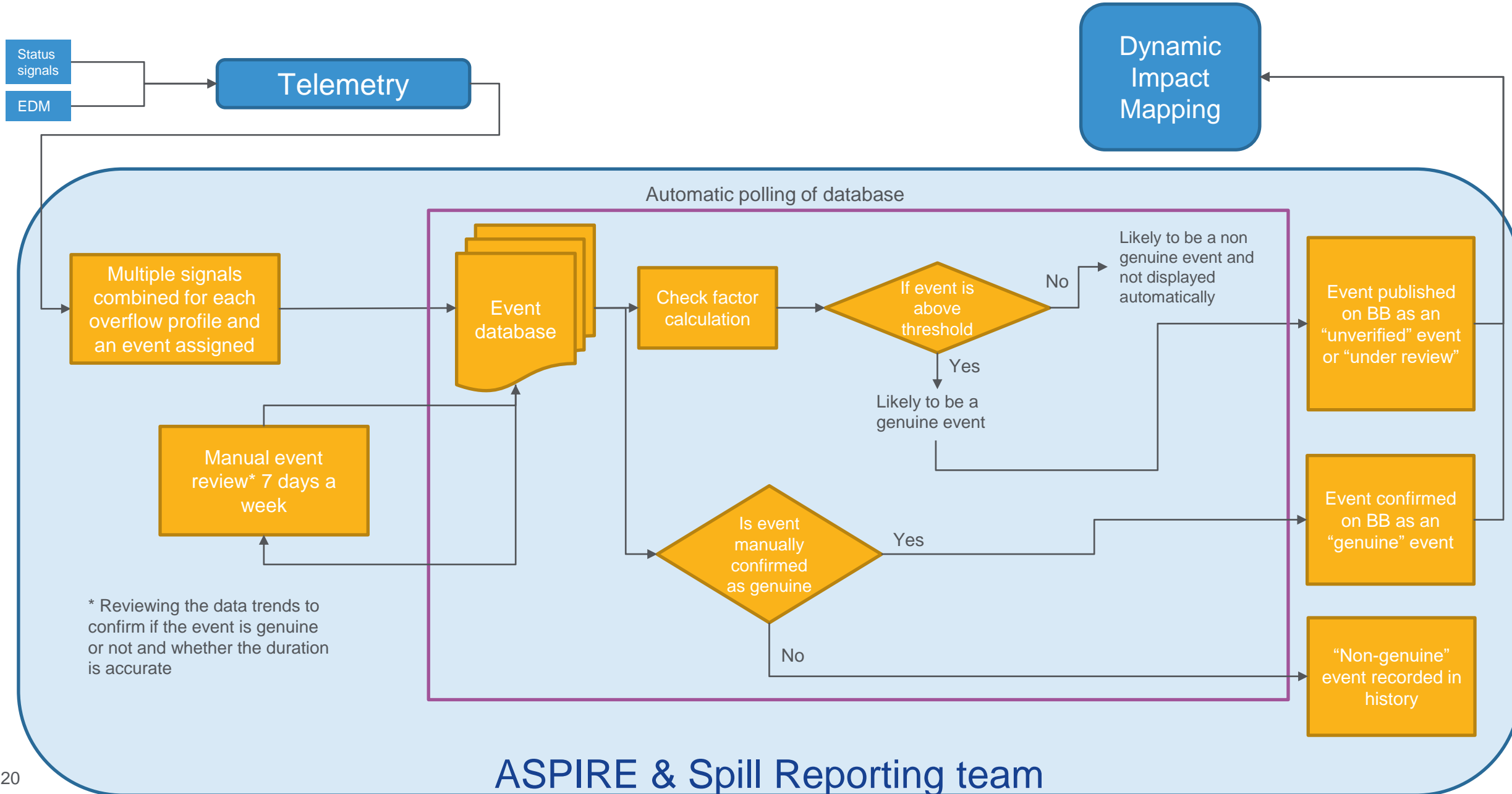
# Appendix

How does Beachbuoy work?



from  
**Southern  
Water** 

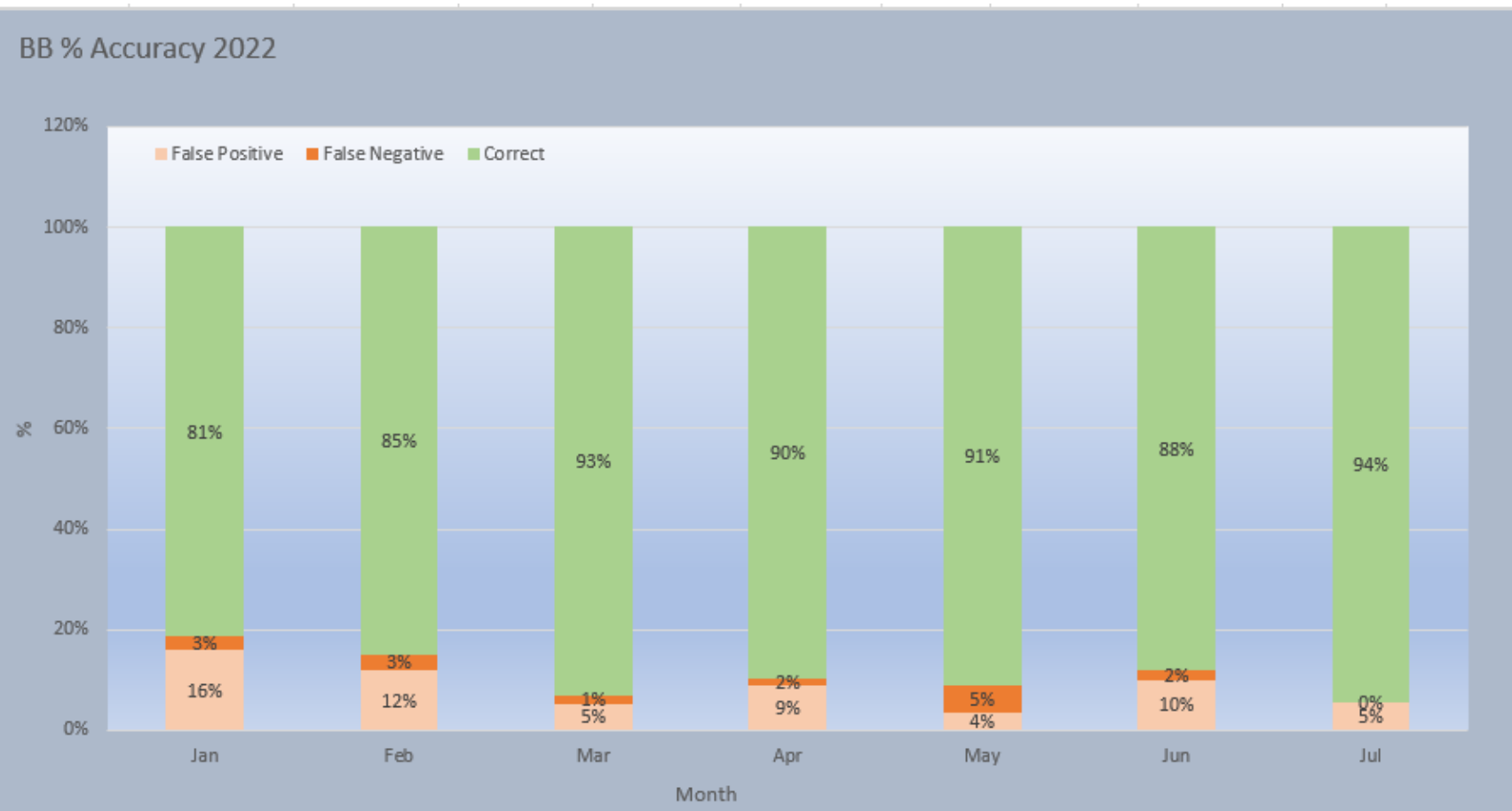
# How spill reporting and Beachbuoy works – events verification



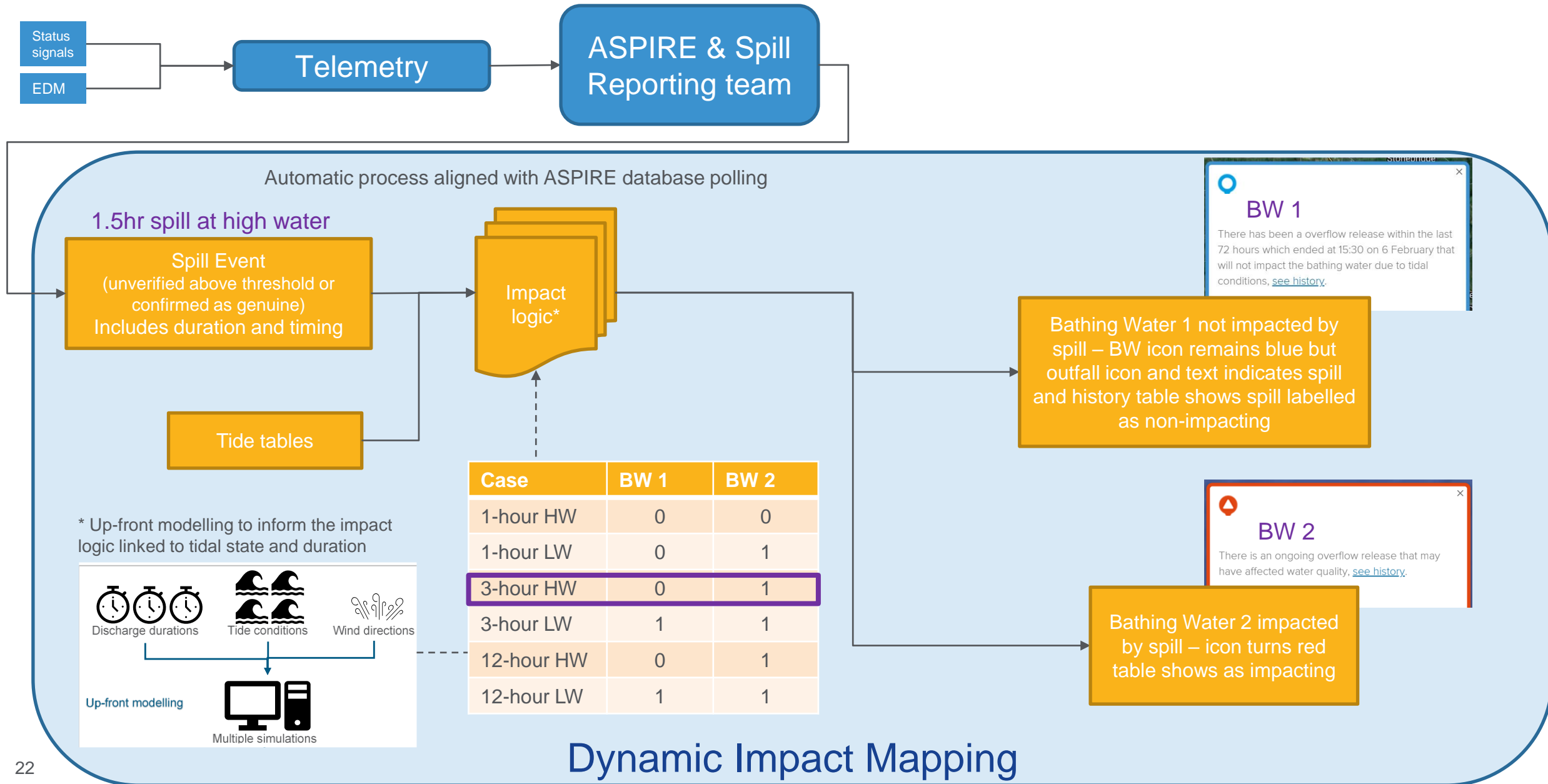
Beachbuoy's false positive is approx. 10%  
events that turn from white to blue.

And false negative is approx. 2%

events that turn from blue to red without first showing as a white icon automatically.



# How spill reporting and Beachbuoy works – dynamic mapping



# How spill reporting and Beachbuoy works – dynamic mapping

