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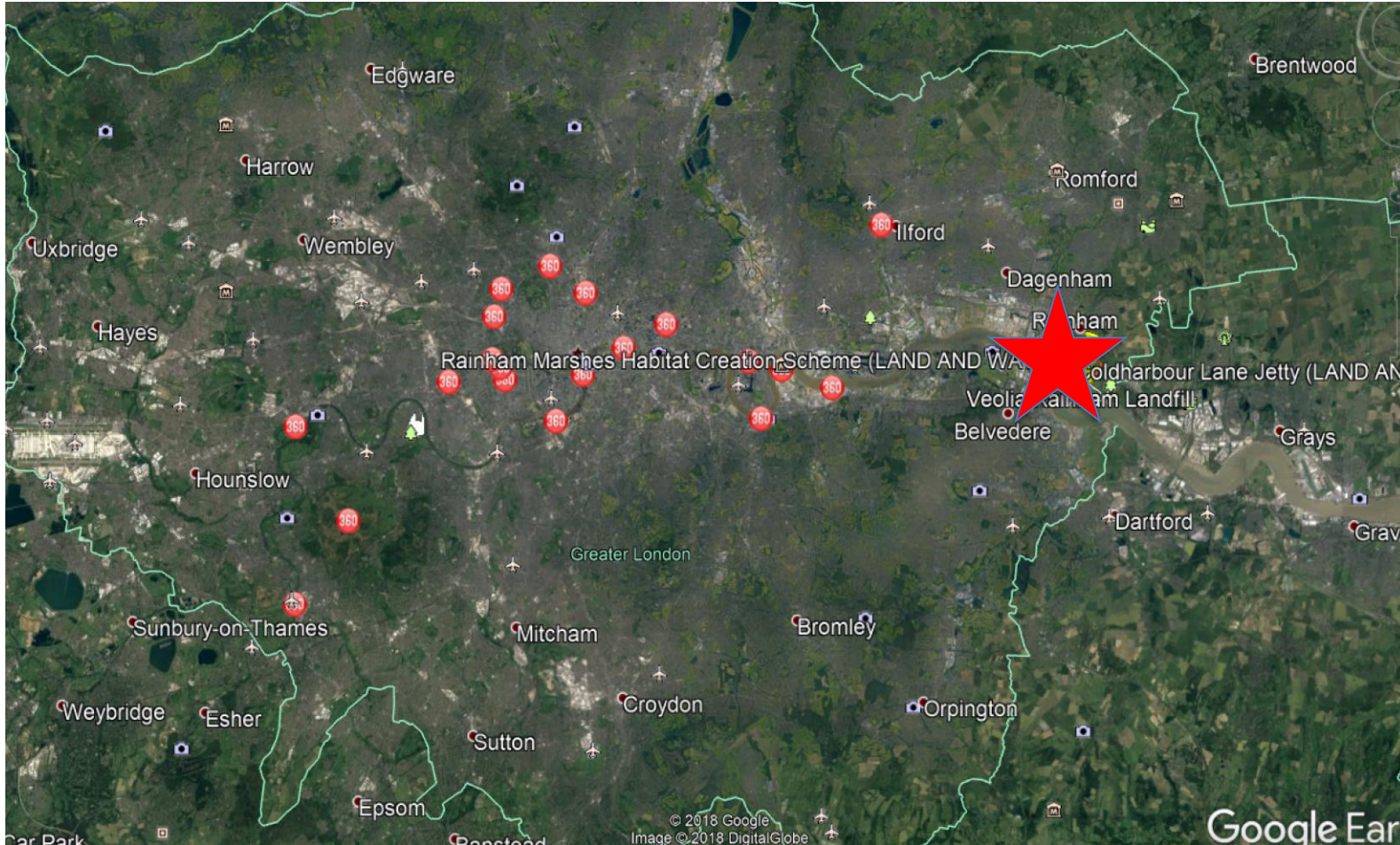
# Land & Water

Innovation. Inspiration. Results

## Rainham Marshes Habitat Creation

Bill Gush: Non-executive Director, Land & Water Group

# Rainham Marshes Lagoons



- ❖ Location.
- ❖ A brief History.
- ❖ New Permit
- ❖ London's largest habitat creation scheme.

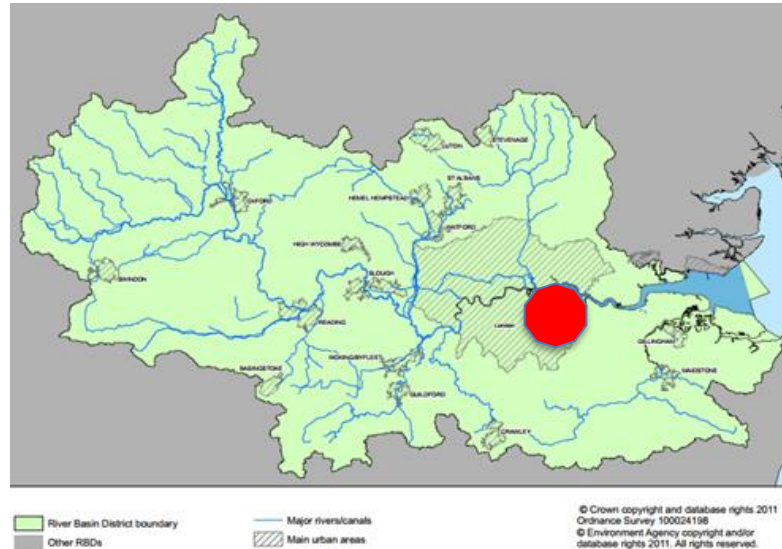
# Rainham Marshes

## ❖ BRIEF HISTORY

- ❖ **Licensed dredging lagoon**; pump ashore facility disused after 2008
- ❖ **Site Location**: north bank of the Thames inside the M25
- ❖ **Stakeholders**:
  - ❖ **RSPB**: Own the land and lease it to the PLA. Need to maintain and protect endangered and protected species (Marsh Harrier).
  - ❖ **PLA** Lease holders and a statutory obligation to provide disposal facilities, who wished to let a contract to manage their asset.
  - ❖ **Natural England**: Wish to restore and maintain the status of the SSSI.
  - ❖ **Havering Borough Council & Mayoral Office**; **The Wildspace Conservation Project**

# Early Involvement; Starting with the end in mind

- ❖ 2013 – Options appraisal.
- ❖ 2015 – Tender Process.
- ❖ Mid Tender; deep analysis; (enabling act research, and dialogue with Veolia Plc unlocked highway potential).



- ❖ “Value added offer based upon access via Land and Water.

# Engage With Stakeholders

## ❖ **Round table Brainstorm;**

### ❖ Identified key drivers;

- Failing SSSI. (driver for action)
- Visiting European Protected Species. (operational constraint and a lever for change)
- Non-Compliant Environmental Permit. (delay risk)
- No agreed restoration plan. (opportunity)
- Veolia facility due to close. (road capacity, and future waste streams?)
- *Changes perceptions.....*
  - LAWR, in consultation with all stakeholders, developed a new restoration plan including raising the finished levels.
  - The plan includes wetlands and open water areas and open free draining area for Thames invertebrates
  - Created a new void over 3.0 million m3

# Optimise the use of the asset

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- ❖ Site could still be operated under the old permit with a simple change of the operator's name.
- ❖ Use of CARs and CQA plans utilised to place material in screening bunds
- ❖ Create drying beds for new and future dredged material

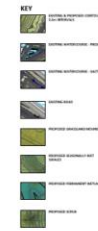


# Optimise the use of the asset

- ❖ Survey and check pipeline connections. **2016** (\*start operations under “old permit” with CQA for enabling works).
- ❖ Secure planning for use of the highway for dredged materials. **2017**
- ❖ Secure jetty for dry cargo handling (inc private road access agreement). **31.12.17**
- ❖ Obtain planning for jetty use and marine logistics. **21.01.18**
- ❖ Obtain planning for the habitat restoration. **Aug 2018**
- ❖ Obtain EA Permit as a variation with a restoration plan. **4<sup>th</sup> Dec 2018**
- ❖ Renegotiate length of terms with PLA. **2018**



# Operation of the site and communicate!



**RAINHAM MARSHES**  
2423/001/F  
Proposed Lagoon Restoration  
1:2000 at A0

NOTE:

REVISIONS

NO.	DATE	DESCRIPTION
1	02/11/17	Initial design
2	02/11/17	Design and hydrology data graphs amended
3	02/11/17	Regional graphics amended
4	02/11/17	Open watercourse and plan adjusted to suit
5	02/11/17	Revised layout (2017) and 1:500 contours revised on 29/04/17
6	02/11/17	and approved on 12/05/17
7	24/03/17	Revised to suit 1:500 contours revised 23/03/2017

 **LAND & WATER**  
Services Ltd

- ❖ Continual RSPB, Natural England and PLA liaison meetings
- ❖ Strong collaboration with Veolia and key commercial neighbours.
- ❖ Open up access from the road (& jetty offload) as well as pump ashore.
- ❖ Can accept non-hazardous dredgings and soils from within the Thames and Medway catchment.



# Ecological Considerations



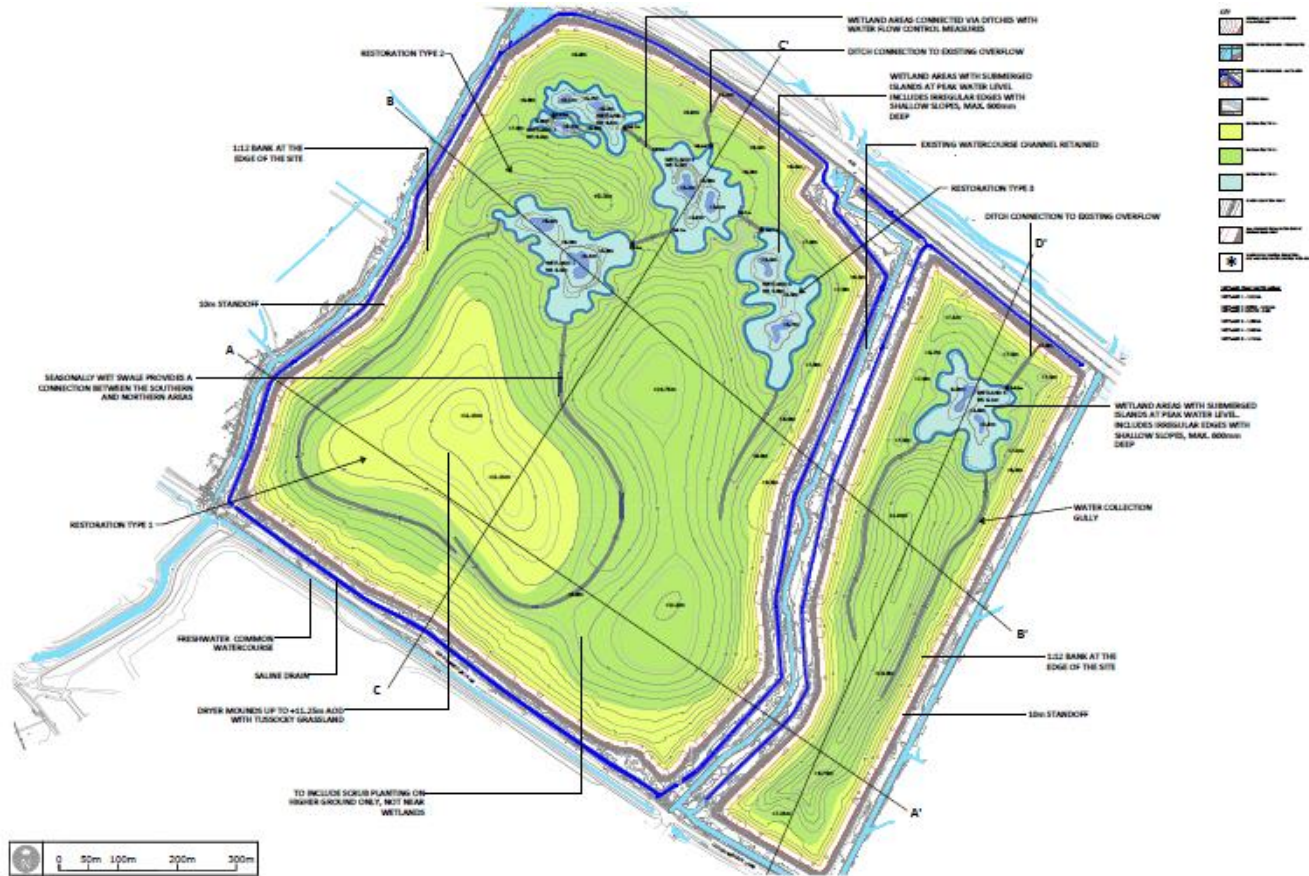
## Considerations

- ❖ SSSI requirements: wetlands habitat
- ❖ Protected species: Marsh Harrier & Cetti Warbler
- ❖ Nesting Birds: seasonal restrictions
- ❖ Thames Terrace invertebrate habitat

## Solutions

- ❖ Division of landfill area
- ❖ Agreed sequence of landfill development

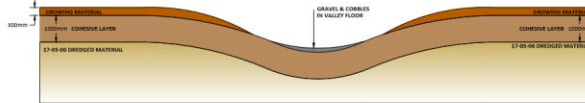
# Restoration Plan



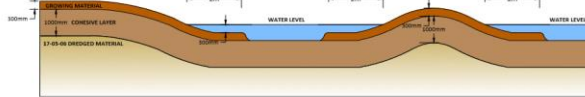
## 1. TYPE 1 RESTORATION NON COHESIVE - NON HAZARDOUS



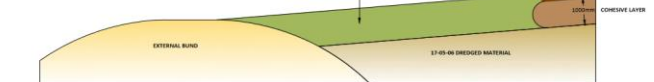
## 2. TYPE 2 RESTORATION COHESIVE - NON HAZARDOUS



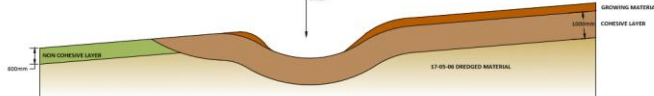
## 3. TYPE 3 RESTORATION WETLAND AREAS



## 4. TYPICAL CROSS SECTION OF BOUNDARY ARRANGEMENT FOR COHESIVE RESTORATION



## 5. TYPICAL CROSS SECTION OF WATER COLLECTION GULLY



RAINHAM MARSHES  
2423/009/A  
Typical sections DRAFT  
NTS at A3

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