

**Monitorização de Sistemas Ambientais 2009-2010**  
**Trabalho prático II – ASSETS preparação de dados**  
<http://www.mosam.org/P2.pdf>

## **Duração**

Duas horas

15m de apresentação (push)

75m de planeamento

30m de apresentação (pull) – 5 grupos, 5m por grupo

## **Organização**

Grupos de 4 pessoas

## **Objectivos**

1. Preparar dados de entrada no Assessment of Estuarine Trophic Status (ASSETS) para o estuário do Sado
2. Preparar *cinco* slides para apresentação – Let's avoid death by powerpoint
3. Fazer a apresentação da abordagem e dos dados

## **Metodologia**

1. Obter os dados necessários para correr o ASSETS com base em ficheiros de SIG, dados do estuário do Sado bem como nos recursos disponíveis na internet
2. Se não estiver já instalado, fazer download e instalar a aplicação ASSETS, [www.eutro.org/register](http://www.eutro.org/register)
3. Cálculo da Pressão
4. Cálculo do Estado
5. Cálculo da Resposta

## Dados de apoio

### *Cálculos específicos*

#### 1. For the General tab of ASSETS i.e. the opening screen

How many salinity zones there are, and the area in km<sup>2</sup>.

#### 2. Pressure tab of ASSETS

For an estuary:

Mean salinity in the estuary

Mean salinity offshore

Mean nitrogen concentration in river ( $\mu\text{mol L}^{-1}$ )

Mean nitrogen concentration offshore ( $\mu\text{mol L}^{-1}$ )

Estuary volume ( $\times 10^6 \text{ m}^3$ )

River flow to the estuary ( $\text{m}^3 \text{ s}^{-1}$ )

Tidal range (m)

Stratification (upper layer volume as percentage of total volume)

Alternatively, for a bay:

Mean tidal prism ( $\times 10^6 \text{ m}^3$ )

Fraction of ebb water not replaced (0-1)

Approx number of tides per day (i.e. 2 for semi-diurnal, 1 for diurnal)

Mean nitrogen concentration in river ( $\mu\text{mol L}^{-1}$ )

Mean nitrogen concentration offshore ( $\mu\text{mol L}^{-1}$ )

Nitrogen loading from effluents (tonnes  $\text{y}^{-1}$ )

Bay volume ( $\times 10^6 \text{ m}^3$ )

River flow to the bay ( $\text{m}^3 \text{ s}^{-1}$ )

Tidal range (m)

### **3. State tab of ASSETS**

For each zone defined in 1, the following:

- i) For chlorophyll and dissolved oxygen, the percentile 90 and percentile 10 respectively. Qualitative knowledge of the spatial and temporal extent of the symptom, for instance, if the chlorophyll P90 value is in the hypereutrophic class, >60, does it affect a very low area, etc, and is it e.g. periodic, or episodic, etc.
- ii) For opportunistic macroalgae, HAB and SAV, qualitative knowledge of the scale of the symptom, together with: (a) for macroalgae, temporal extent; (b) for HAB, duration and frequency; (c) for SAV, magnitude of change. All these are done based on expert knowledge.

### **4. Future outlook (response) tab of ASSETS**

Expert knowledge on either:

- i) In general terms on whether the nutrient pressures will decrease or increase (relative scale of magnitude)
- ii) In more detailed terms, the same issue, but broken down into agricultural and urban (sewage)

### **5. Final outcome**

Completing these will allow users to (a) view the state score of the combined various zones, and (b) view the overall score in the ASSETS tab.

### ***Estações de amostragem***

Site: <http://www.mosam.org/>

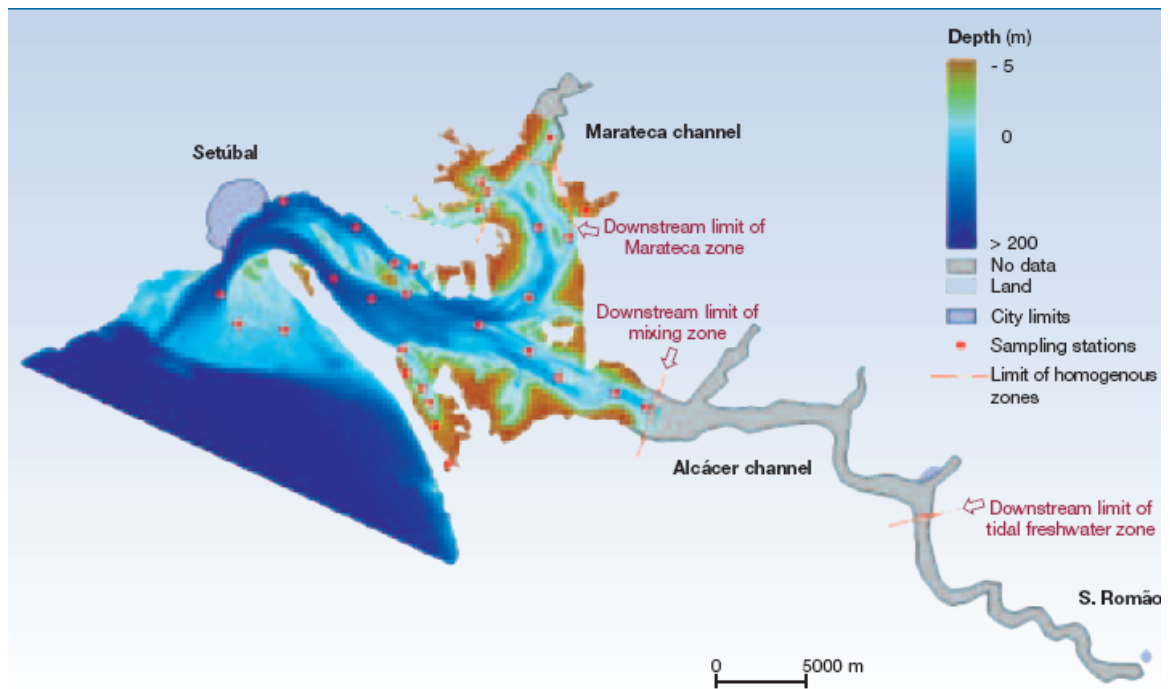
Ficheiro: MOSAM Pratica II GIS files.zip

### ***Dados de qualidade da água***

Site: <http://www.mosam.org/>

Ficheiro: Sado ASSETS 2009-2010.zip

## Batimetria



## Estações de amostragem

