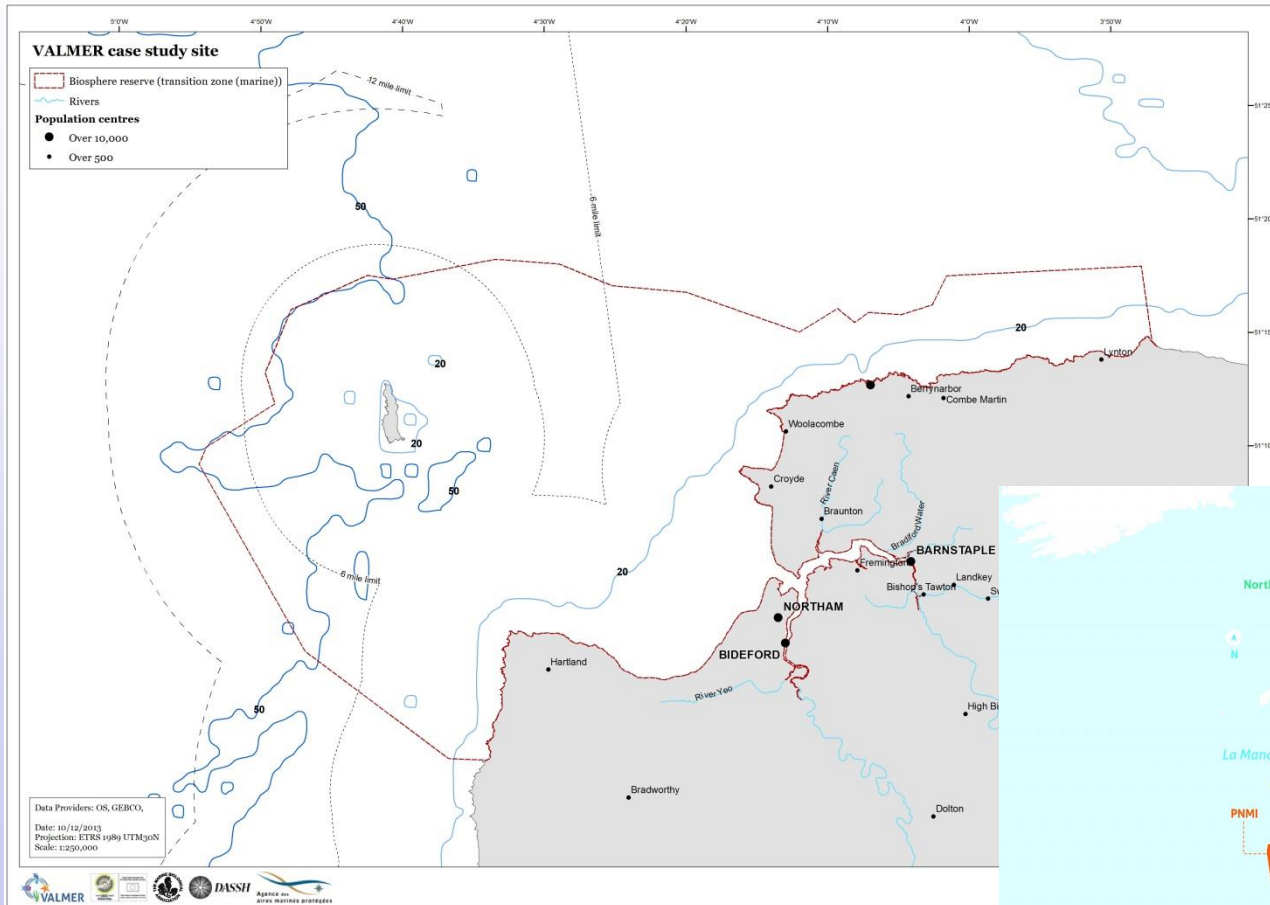


North Devon Case Study Site Report

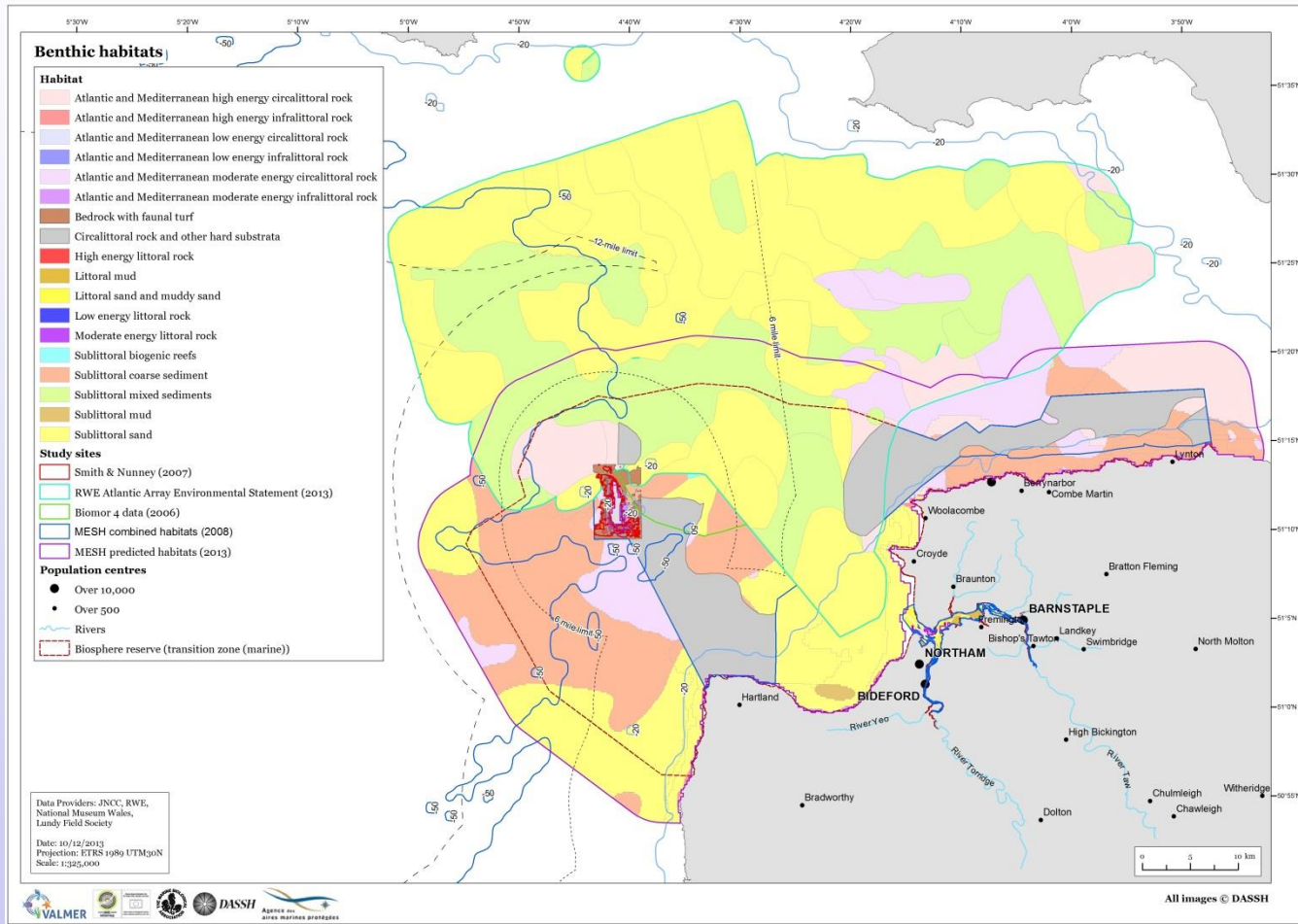
Partners' meeting
April 2nd 2014



Where? - North Devon Case Study Site



What Habitat: Subtidal Sediments



What Ecosystem Services

- 1. Fisheries Production**
 - Nursery/Spawning Areas
 - Sustaining food chains (food for fish)
- 2. Sequestration**
 - Carbon
 - Waste/Pollutant
- 3. Coastal Protection**
 - Wave Attenuation



What Process/Approach

**Ecosystem Services
Assessment**

**Stakeholder
Scenario Building**



Socio-Ecological Model
'Bayesian Belief Networks'

ES Assessment and Valuation Techniques

- Which techniques are being used?
- 30 second overview of North Devon ESA process
- Where we are now...some initial results!



Data Collection and Mapping

Data have been collected on:

1. Human activities and uses that affect the seabed – their distribution and intensity in the NDBR marine area

e.g. VMS and landing data from the MMO, Fisherman, Recreational angling surveys MMO/NSA

2. Ecology – seabed species and habitats, nursery and spawning areas for commercially important fish species and reported catch

e.g. Cefas Beam Trawl Surveys VIIa/Young fish surveys, EA young fish surveys, Cefas gear trial surveys, IFCA potting surveys, RWE potting and trawl surveys

3. Management – existing measures including MPAs, fisheries restrictions

e.g. EA, NE, IFCA, MMO ??

Primary data? Problems/Challenges? Displaying ES Assessment data?



Stakeholder Participation – Overview

- **Four Stakeholder Workshops:**

1. *Data Validation*
2. *Scenario Building*
3. *Scenario validation and preliminary results of ESA*
4. *Scenario outcomes, model outputs and implications for governance*

- **Broad cross section of stakeholders:**

- **Statutory and Regulatory** e.g. Local Authorities, MMO, IFCA , Natural England, National Trust
- **Business and Commercial** e.g. Fishing Sector, Ports and Harbours, Local Chamber of Commerce, Consultants
- **Community and Voluntary** e.g. Local sub-aqua clubs, marine and coastal organisations
- **North Devon Biosphere Reserve**

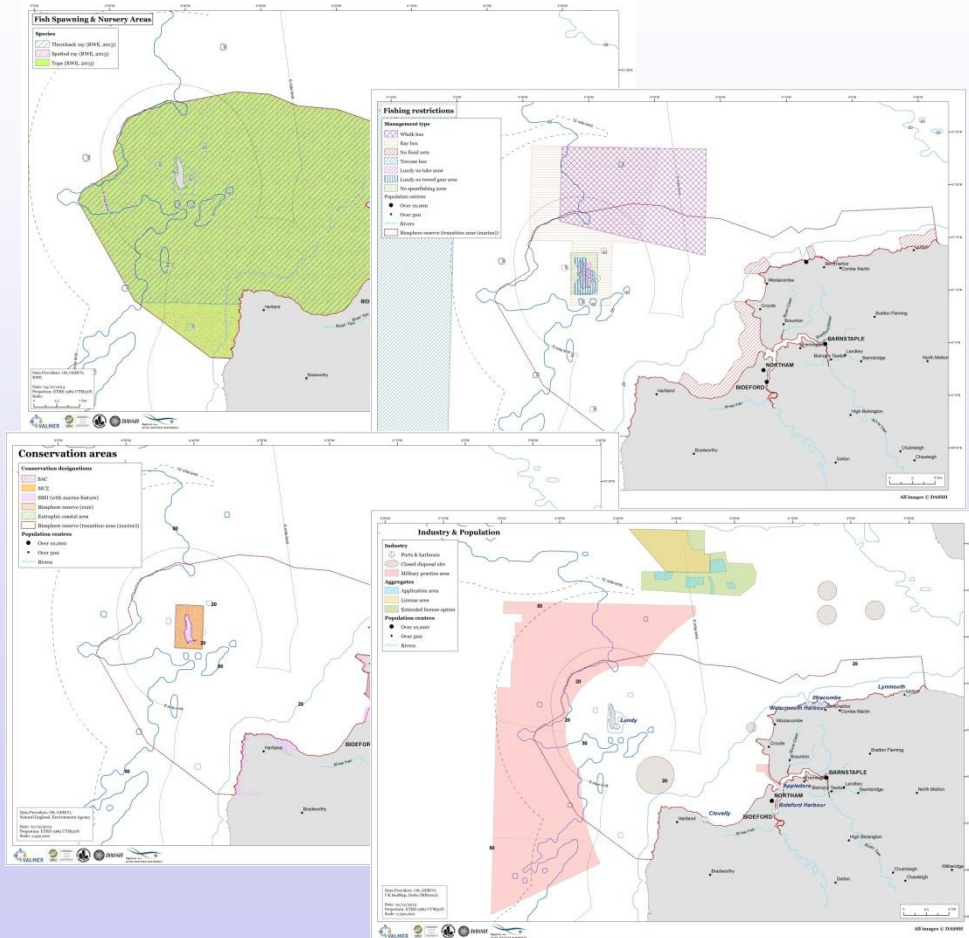


Stakeholder Participation – Workshop 1

- **13th December, 2013 – Barnstaple**
- **20** stakeholders
- **Primary Aims:**
 - Re-engage stakeholders
 - Validate ‘ground truth’ data
 - Identify new sources of data
- **Methods:** maps, more maps, post-its and pens



Stakeholder Participation – Workshop 1



- Do they match up to the real life situation?
- What are we missing?
- How can our understanding be improved?

Stakeholder Participation – Workshop 2

- **30th January, 2014 – Bideford**
- **18** stakeholders, 8 new attendees
- **Primary Aims:**
 - Identifying and prioritising scenarios
 - Building scenarios: **construct narratives**
 - Building scenarios: develop **pressure maps**
- **Methods:** more maps, post-its and pens, and a scenario narrative ‘pro-forma’... and red stickers



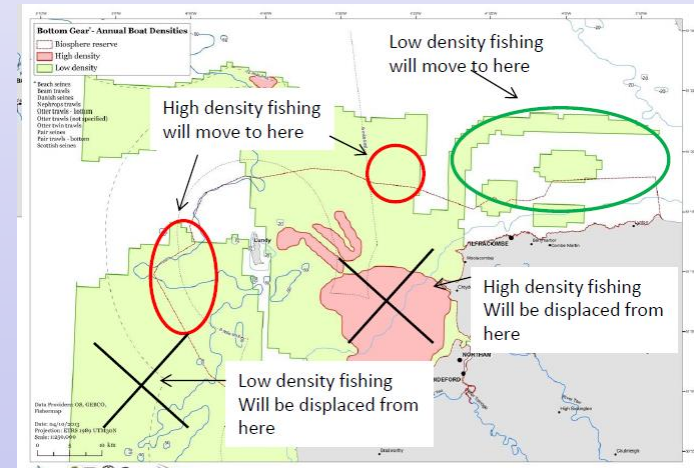
Stakeholder Participation – Workshop 2

Scenarios prioritised and worked up:

1. **Tidal Development** (five new tidal demonstration projects)
2. **Fisheries Management** (self-regulation)
3. **Coastal Change** (sediment regime changes and managed realignment)
4. **Nutrient Changes** (increased nutrients in the Taw-Torridge estuary and beyond)
5. **Aggregate Extraction** (aggregate extraction from SW Lundy)
6. **Blue Growth** (development of commercial and recreational maritime sectors)
7. **MCZs** (All proposed MCZs designated)
8. **Windfarm development** (Atlantic Array sized windfarm developed on lease site)

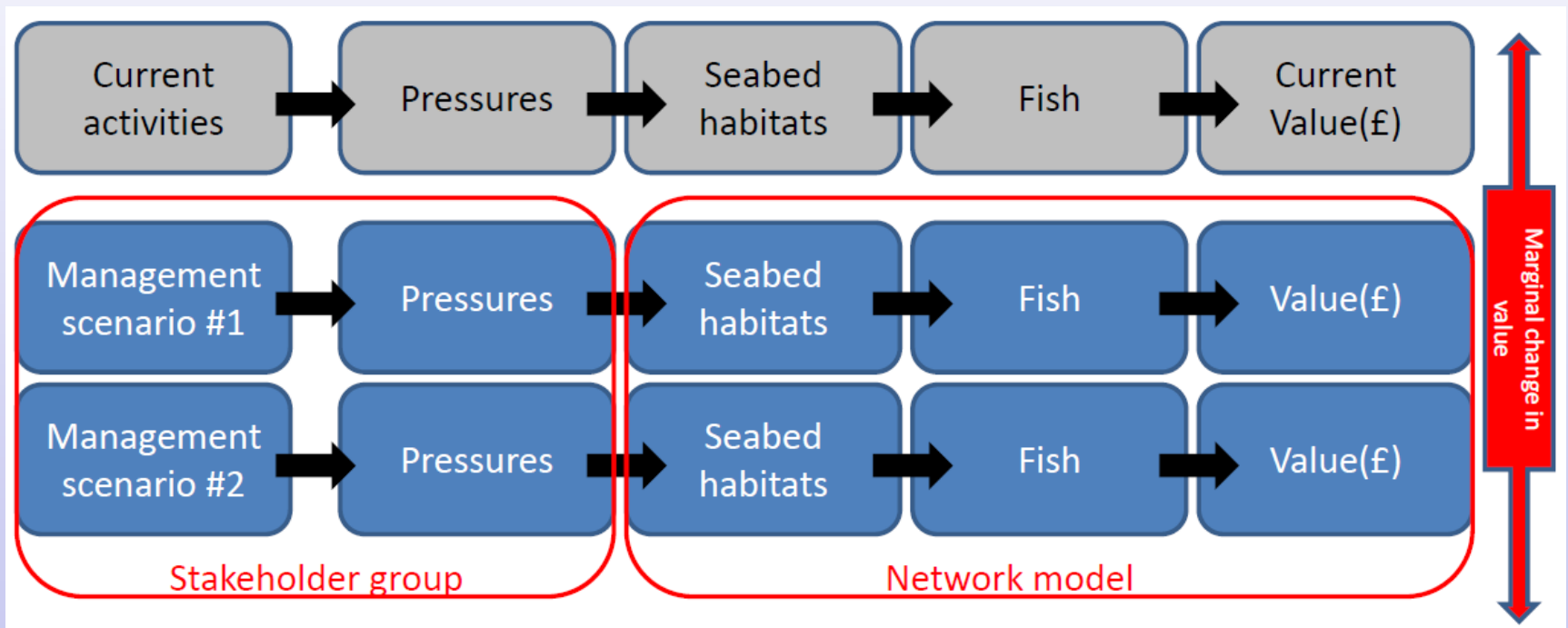
(S1)

Group	Topic	Issues	Options	Objectives	Benefits	Risks	Other	Date
S1	Workshop 2 - 27 Nov 2011	Workshop 2 - 27 Nov 2011	Workshop 2 - 27 Nov 2011	Workshop 2 - 27 Nov 2011	Workshop 2 - 27 Nov 2011	Workshop 2 - 27 Nov 2011	Workshop 2 - 27 Nov 2011	Workshop 2 - 27 Nov 2011
Group	Mapping (Which of these maps does this information need to go on? - location and contents)							
Scenario Name	Workshop 2 - 27 Nov 2011							
Key drivers (policy, demand, financial)	Workshop 2 - 27 Nov 2011							
Changes to current activities caused by this scenario	Workshop 2 - 27 Nov 2011							
Changes to activity intensity (decrease, stay the same, increase)	Workshop 2 - 27 Nov 2011							
Changes to activity location (leave, stay the same)	Workshop 2 - 27 Nov 2011							
New activities (creation, intensity)	Workshop 2 - 27 Nov 2011							



Stakeholder Participation – Workshop 3

- **Scenario Scoring**
- **Preliminary results North Devon Ecosystem Service Assessment**
- **Introduction to the Socio-Ecological ‘Network’ Model**



Governance

ESV/Socio-Ecological Model: To what end?

- Of academic value: significant and original research
- Of direct value to NDBR and local stakeholders as a product: ‘results’ used to inform and influence marine and coastal management decision making in the context of: Marine Spatial Planning, MCZ designations, Marine Ecological Network, Common Fisheries Policy reform, FLAG, myths and truths about exploitation of the sea.
- Of direct value to NDBR as a process: recruitment and/or re-engagement of local stakeholders,



Next steps and future challenges

- **Major challenges**

- *Engaging Fishermen*
- *Explaining the concepts of ES and ESA/V*
- *Maintaining stakeholder engagement*
- *Balancing the needs of the VALMER project with those of the stakeholders*

- **Timeline**

Dates/deadlines	Actions
April-June 2014	Develop and run model/scenarios
Early July 2014	Stakeholder meeting – Scenario outcomes
July-October 2014	Finalise model and model outputs
October 2014	Final report

