# **Studland Coastal Change Workshop No.2 Report**

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# **Studland Workshop Report Workshop 2 Report**

# **Summary**

The second of two workshops looking at coastal change in Studland Bay sought to further develop the themes identified in the first workshop of coastal change issues and opportunities in Studland.

The comments and suggestions included in this document are those of the workshop participants. Where there was repetition, comments have been amalgamated, otherwise the original comments have been presented as closely as possible to those recorded during the workshop session.

The discussion section (page 18) gives a short summary of the results by topic.

# 1. Introduction

The Living with a Changing Coast project, supported by the National Trust and facilitated by the Dorset Coast Forum, held a workshop for the Studland Community about coastal change in the area and issues arising from it. The objectives of the workshops were to:

# Workshop 1:

- Explore the issues and challenges relating to coastal change at Studland
- Look at ways to adapt to these challenges

### Workshop 2:

 Bring together residents, elected representatives and other stakeholders to further prioritise the list of options generated during the first workshop and to further develop these ideas

The workshop was held on the 15th December 2014 at 2.30-5.30pm at the Studland Village Hall. The Dorset Coast Forum acted as neutral facilitators for the workshop event. Sixty nine people attended the workshop and the agenda was as follows:

2:30pm	Workshop Registration
3:00	Welcome
3:05	Presentation 1: Results of Studland Workshop 1
	Bridget Betts, Dorset Coast Forum
3:20	Presentation 2: Coastal Processes in Studland and their Management
	Professor Vince May, Emeritus Professor of Coastal Geomorphology and
	Conservation, Bournemouth University
3:35	Questions
3:50	Presentation 3: Swanage Coastal Change Forum (SCCF)
	Malcolm Turnbull, Chair of SCCF
3:55	BREAK – Christmas drinks and snacks
4:10	Workshop Session: Building upon priorities from Studland Workshop 1 to
	identify actions
5:25	Next steps
5:30	Close

# 2. Methodology

### 2.1. On arrival

- 2.1.1. Attendees were asked for the best way to contact them for future communications.
- 2.1.2. Attendees were assigned a number (1-6) on arrival which would determine which groups they were in for the workshop session.

# 2.2. Guest speakers

2.2.1. Three presentations were given by the Dorset Coast Forum, Emeritus Professor Vince May and the Chairman of the Swanage Coastal Change Forum to provide an overview of the results of the first workshop, to describe coastal processes and their management generally and in Studland bay (this topic was identified as one of interest to the participants from the first workshop), and to give some insight into the work of the Swanage Coastal Change Forum.

There was then time for questions from the audience (see appendix 6.1 for details)

# 2.3. Workshop session 2

Given the range of interest and issues at Studland the prioritised results from the first workshop were used to continue discussions in the second workshop. Participants were asked to build upon those priorities with actions, including looking at recommendations for the National Trust Infrastructure Adaptation Plan.

There were six stations all linked to a priority issue in Studland – identified in the last workshop. Each station was manned with a facilitator who would reiterate the priorities and discussion points and ask prompt questions if necessary. Each station had the priorities written out on separate sheets for participants to refer to.

After 10 minutes a bell would ring and each group moved forward clockwise 1 table until all stations had been completed.

A "parking place" was set up for any queries or questions unrelated to the scenarios or the key questions could be written down and answered in due course by an appropriate organisation.

Representatives from county and local council departments relevant to the discussions were asked to attend the event and contribute their area of expertise, for a full list of those representatives in attendance please see appendix 6.3.

# 3. Results and Analysis

3.1. Workshop 1 priorities

The priorities which were identified by the participants in workshop 1 and further explored in workshop 2 were as follows:

# Infrastructure and housing:

- Café- Modifications and locations of the cafes Little/South Beach and Middle
- Beach huts- identifying space to move the beach huts- (Knoll Beach)
- Creating a pier at middle beach

### **Community:**

Building partnerships and forging strong relationships- (Little/South Beach & Studland community)

# Sea Defence:

- Planting native grasses to stabilise the areas- (Knoll beach)
- Gabions & renourishment/recharge

#### Access:

- Alternative methods of transport- (Studland Village & Knoll Beach)
- Raising up the ferry road

The results of the discussions are presented below.

3.2. Workshop 2 results

# 3.2.1. Station 1: Cafés Infrastructure

The cafes at each of the beaches in the bay were identified during the first workshop as important and potentially vulnerable features (to coastal change in the near future). During the first workshop the challenges and opportunities of either relocating or modifying the current facilities were explored. The discussion points looking at these two questions are listed below.

# Questions:

- What modifications are needed to ensure they are able to cope with the weather?
- Are there any other locations they could be moved to?

# A. General points & suggestions for the cafes

- Make both cafes mobile buildings, for example flat pack structures
- Café as a boat or floating cafés, move forward on floating pontoon

- Need more mobile service on the beach during summer months if café is moved
- Want a beach café, not one, for example, in the woods
- Seasonality of when cafes are in use needs to be looked at main café up the top could be used and promoted all year and mobile units served by the top café could be used in high season
- South West Coast Path now more people using this and therefore need to have more access to the cafes (especially space inside as maybe wet weather). Joes café can't cater for people inside only. Middle Beach can accommodate people in bad weather
- Studland caters for different tourists (natural, etc.) concentrate on facilities that cater to them e.g. needs to be local produce/local input

# B. Little/South Beach - Joe's Café

#### Vulnerable to:

- Biggest threat is surface water [run-off] coming down Watery Lane need to protect [café] from both surface water and the sea
- o Manage surface water [run-off] from loos down to the beach
- o Need more trees for stabilisation and need to be realistic

## Moving the café

- o Space to take it apart and move further back negotiate with private land owner
- o Could move further up as small [it'll be] less expensive

### Changing the café structure

- Could put the café: underground or on stilts could provide protection from the rain/sun, on pontoon, on floating foundations
- Have an amphibious café (water & land)

There were concerns about moving and changing the café because it could be "more vulnerable if made mobile as difficult to move down the track – also vulnerable to people setting fire to it as you could get underneath"; also "Joe's needs to be small and in-keeping".

Some suggestions were made to use the café as a sea defence, to "build up bank underneath it", use "piling" or put "gabions in front of it".

### c. Middle Beach Café

Some general comments about the facilities here:

- What facilities would we like at the beach? Toilets and food
- Make café the new Visitors Centre with café and toilets and Knoll Beach become a mobile café
- Run off from behind [the slope behind the café] is the real issue
- Need structural survey to really understand the area and enable any decisions

# Moving the café

- o Move into top car park to secure it and if planning for future.
- Move to top better view
- Relocation as near as possible where it is safe
- o Essential having a frontal view on sea side of it
- Move sideways slip road onto the beach and protection
- o Could it be a mobile structure with electricity, etc. include toilets
- Rebuild on the pier (if a new one was built) but not everyone agreeing with having a pier

## Challenges

- Move up to top but need to consider access to it and need better access to the beach as it would be further to walk and could mean problems for the disabled – could consider a lift down?
- (A café would) need space in car-park and to be given more scope to use this space - therefore require better Park & Ride to accommodate the lack of car parking
- o Can't be moved directly back
- o Moving café towards Knoll will not be a good idea as eventually won't be there

# Changing the café structure

- o Make it smaller
- If small, mobile structure on beach it can be moved in peak/non-peak times and fed by bigger café up the top

#### D. Knoll Beach café

Some general comments made about the facilities at Knoll Beach:

- Knoll is not a Visitors Centre just a shop and café
- Most important beach café as it's where everyone goes, good facilities with lots of car parking
- Ideally needs to be on the beach
- Move it back to the road remove some of the car parking

# 3.2.2. Station 2: Community

The results from the first workshop, showed an interest in discussing how to encourage strong relationships and build partnerships between the different 'communities' of Studland. From local residents to second home owners, beach hut owners and other beach users, as well as organisations such as the National Trust who are involved in the area. A presentation by Malcolm Turnbull, Chair of the Swanage Coastal Change Forum, encouraged discussion about whether a similar community-based group which includes agency representatives, could be set up to try to resolve issues arising from Studland's changing coastline.

### **Questions:**

- O What do you think the benefit would be of a community group?
- Is there anything that exists already that can be built upon?
- o How can this be achieved? e.g. events, meetings, groups etc.
- o Who needs to be involved/who could drive it?
- o What could be done to improve relationships with second home owners?

# A. Setting up a Coast forum/focus/working group

# Support for setting up such a group was mixed, comments included:

- "A group which combines views of Studland residents and visitors would be useful"
- "Forum meetings would have to happen in summer to reach different groups"
- "It's good that the National Trust are here and talking to different groups"
- "There needs to be recognition of what can be dealt with in the community and what can't"

# Challenges to setting up such a group

- "People coming in from elsewhere so forming a Forum would be difficult"
- "A lot of visitors are here for the day so don't have time to get involved in groups, answer questionnaires or come to meetings"
- "Not enough people in the village to sustain a forum long term".
- "Lots of problems are caused by tourists who can't be involved in a Forum"

It was suggested the group could come together twice a year in a forum known as 'Studland for You'.

#### Who should be involved?

- All the different businesses including water-sports, pub owner, ferry company, café owners
- User groups from South, Middle & Knoll Beaches Studland Beach Users Action
   Group has come together to tackle criminal behaviour in particular and been successful
- Parish Council, National Trust, beach users, boaters, beach hut owners, all need to be involved
- Second home owners need to be given the chance to be involved as well

# Who could set up the group?

- Need to find a neutral outsider to start the group
- Could Dorset Coast Forum be involved in setting a Forum up?
- Parish Council could form a group bringing together all users
- National Trust and Parish Council could contact tenants and put out questionnaire to see who is interested
- Could the hotel be approached to see if they would help set something up?

# B. Beach community

# Suggestions on how to forge relations between beach users, included:

- Form a beach hut owners association this needs to include residents as well as other beach users
- Studland Beach Users Action Group could have an AGM which could be opened up to everyone to get more people. The AGM could bring in people to talk about/tackle specific issues, so not attempt all Studland's problems at once.
- South/Little Beach Hut Group have started creating an email contact list, contact Bruce Jones - bruce.magenta@gmail.com
- Lots of information about Beach Users Action Group at Middle Beach but it needs to be publicised

"South Beach community historically is very strong and all knew each other through sailing etc" "Joe's café brings people together on South Beach"

# Challenges of having one group

"There are lots of different overlapping communities"

"Three beaches are too different to have one group which covers all of them"

# C. Staying in touch and up-to-date

# Ideas on how to stay in touch and improve communications:

- A page on the Parish website to share information about what's happening at different beaches
- Creating a central contact point in the Parish Magazine and/or website for people to submit contact details so they can be kept informed
- Create a Studland website for all the different users
- Noticeboard at Joe's café to let people know what is going on, but not a National Trust noticeboard
- Social media is one way to let people who aren't physically 'here' be involved
- Need to get information to tourists as well

# D. Events to bring people together

- Regattas
- A Neighbourhood Plan could bring people together through writing it and let the community take ownership of it

# 3.2.3. Station 3: Soft Coastal Defences

- Planting native grasses to stabilise areas at Knoll Beach
- Gabions & recharge

Presentations both at this workshop and the first one explained the natural coastal processes at work in Studland Bay and the coastal management approach taken in this area by statutory authorities and landowner, the National Trust (for more information see *The Residents Guide to Coastal Change in Studland*). These discussions about options for soft coast defences were to generate ideas in keeping with the management approach and within the constraints in place, such as the designations covering the natural habitats. At one end of the scale, the option put forward was to "allow the beach to behave naturally" and not to intervene at all. However, most of the discussion was about intervening in some way.

### Question:

o How could this be achieved? (who, when, where)

# A. Soft defence options

Comments relating to using soft coastal defence such as planting native grasses and using wind fencing to stabilise dune areas at Studland:

- Planting old Christmas trees living ones
- Push sand up in front of Knoll in November and push it down in April
- Lots of marram grass will colonise naturally given time (1m/yr)
   Although some felt seeding areas with Marram was "not very successful" and "grass planting is irrelevant"
- Relocate the facilities
- More stuff needed e.g. ponds/fencing for newly seeded areas
- Natural colonisation of marram grass at Shell Bay
- Everything yes please!!
- Be more proactive in the soft coast protections options
- Retain as much of the beach as possible

# B. Discussion on hard defences

### **Gabions**

- Gabions not properly installed in the first place and are now redundant
- Middle Beach gabions not the answer

#### **Beach Recharge**

- Relocate sand from North down to South
- Beach is lower in the SW corner
- Recharge Middle Beach and keep re-charging
- Beach recharge using pebbles and coarse sand so that it stays put
  - o Coarse sand would be horrible on the beach.

Other challenges raised were the impact of "lots of sand – what about the ecology, would it kill the eelgrass?", also "money – cost of a recharge" and there was concern as to whether would even work for Studland

Other comments were to "enlarge/lengthen the Training Bank" and to get more rock armour. Questions raised included "who pays for all this?" and "is the Village at risk of loss?"

#### C. Information and data needed

There was some discussion about needing more information and data to make informed suggestions, such as an independent survey of sediment system in the Bay to learn more about the natural and human processes and their impact. To verify if, for example, 'Studland's seabed is getting higher'.

Data on external impacts that people would like included:

- o "What is the impact of dredging on the beaches at Studland?"
- "Could LiCCo appraise the dredging effect on the coast?"
- o "Will the Navitus Bay Development Ltd project help or hinder?"

# 3.2.4. Station 4: Access

- Alternative methods of transport (to Studland Village and Knoll Beach)
- Access to beach (pedestrian to Middle Beach)

Parts of the discussion that took place at this station included issues that were beyond the remit of the Living with a Changing Coast project and the National Trust (for example regarding the B3351 road) but they had been flagged up as key issues by attendees at both this and the previous workshop. This second workshop was a good opportunity to explore these issues and so we invited people with the knowledge and expertise to provide relevant information and answer questions. The following people stayed on this station throughout the workshop: Stephen Howard – Highways: Community Liaison, Dorset County Council, Debbie Fiddik - Dorset Highways: Public and Community Transport Development Officer, Dorset County Council, Rachael Shefford - Countryside and Tourism Officer, Purbeck District Council, Carmel Wilkinson – Countryside Access Manager (Coastal), Dorset County Council.

#### **Questions:**

- o What alternative transport could there be?
- o How could it be achieved? (who, when, where)
- o How could pedestrian access to Middle Beach be improved?

Some general comments made about visitor numbers accessing Studland included that there'd been a "change in the number of visitors (far fewer now than in the past)". At a rough guess on the "balance of visitors it's estimated the ferry brings in a third with two thirds arriving via the road from Corfe, so the ferry also acts as a 'throttle' (think of the numbers if there was a bridge)". The role the weather plays in the number of people

travelling to Studland was emphasised, "the traffic is so weather dependent (impacts time of arrival and departure)" and "economics will decide issues".

### A. Access for cars

# Car-parking

- o What happens when we lose car parking spaces?
- o Survey beach users to find out how fewer car park spaces would affect them
- Car park at Knoll Beach planning issue so advice needed and sensitivity regarding designations.
- o What are the economics of losing the car park?
- o Is temporary permission for car parking an option?
  - 28 day licenses could be included in Neighbourhood Plan.
  - Previously nearby fields were opened up during the summer as overflow car parks
  - Is Manor Farm an option for temporary a car park?
  - Example of Looe in Cornwall where they closed all the car parks in the town and only have P&R car parks outside of the town
- o Would it be possible to have sign indicating how many spaces available?
  - There used to be traffic control at Corfe Castle for B3351
- Studland is a self-regulating site the number of spaces restricts the number of people who can access it
- Visitors are often from Poole & Bournemouth so they're aware of issues around parking and traffic
- There is an issue when car park fees are raised, as more people park on the road

#### Road between Corfe and Studland

- Concern about the narrow roads leading to accidents, but they do have a traffic calming effect by reducing the speed of vehicles. The most dangerous section is near the Golf Club where it is particularly narrow.
- Possible alternative road (between Studland and Corfe Castle) looked into but ruled out

# B. Access for cyclists & horse-riders

- Volume of both on-road and off-road cyclists has increased recently how to respond?
- They cause safety issues e.g. dangerous to pedestrians and delays when they slow down traffic that can't overtake them.
- Would it be possible to divert them via Swanage on cycle maps (or would that just divert the problem)?
- Would it be possible to redirect cyclists to avoid the narrow section of Corfe to Studland road for safety reasons?
- Off-road cyclists are already catered for and do have routes

### C. Access for walkers

- Disabled access, especially wheelchair access to beach and toilet only possible at Knoll, so other beaches are in accessible to wheelchair users
- Maintaining boardwalk is very important
- Coastal Access recent funding announced by Government for England Coast Path.
   This path, for walkers only, will include 'spreading-room' for roll-back as coast erodes. Scheme managed by Natural England. So far in Dorset, section from Lulworth Cove to Rivers Castle completed. By end of 2015 third phase from Lulworth to Studland will be completed.

# D. Access by Ferry

- Protecting Ferry Road is very important
- This road belongs to the Bournemouth-Swanage Motor Road and Ferry Company and the road itself is not at high risk of flooding
- Shell Bay restaurant flooded for couple of hours during extreme high tides

# E. Access by Public Transport

#### Buses

- 10 years ago a feasibility study was carried out for a new road between
   Studland and Corfe Castle. It was decided it was not do-able, as there were too many people for the buses.
  - Buses need to have enough seats/space for passengers on their way back (often everyone tries to head back at the same time)
- There are issues regarding the winter service when the Purbeck Breezer only goes to All Saints, Ulwell in Swanage when the ferry is off. One workshop attendee walked on the road in the dark from there to Studland.
- o Purbeck Breezer No. 40 service is a commercial service so has to be viable

### Park & Ride

- o How much does it cost to run Park & Ride (P&R) for summer/ 52 weeks?
  - For answer see appendix 6.4
- o Purbeck District Council consider Norden 'fit for purpose'
- Norden P&R issue about buses on narrow roads (locals travel via Swanage).
   Footprint of double-deckers can be smaller than smaller buses
- Motivation for using P&R, for example people drive to Studland, discover car parks full so return to Norden P&R
- Norden P&R too far from destination
- Issue regarding feasible P&R link bus stop (currently the Purbeck Breezer No.
   40 doesn't stop in the car park not cost/time effective for route)
- Issue relating to hiring beach equipment at the coast so people not transporting masses of stuff in cars

 'throttle effect' currently means the number of people coming to park is selflimiting (and so more sustainable) because they know there's restricted parking which is likely fill up quickly on a popular day

### F. Alternatives Access

## Waterborne transportation

- Used to be gondoliers from Poole to pier on Middle Beach possible to run again?
- O Would it be possible to have a Park and Ride to water taxi?

The Dorset Area of Outstanding Natural Beauty (AONB) and the Jurassic Coast Team started work to look at the feasibility of waterborne transport in 2009 and have published the Stage 1 & 2 reports and evaluation report of work so far on the Jurassic Coast website: <a href="http://jurassiccoast.org/waterborne">http://jurassiccoast.org/waterborne</a>.

In Studland the environmental and marine constraints (including the shallow bathymetry of the Bay) made it difficult to come up with a feasible design for a jetty which would also need to overcome visual impact and practical operating issues. The Evaluation Report concluded that there were a number of additional key elements that needed addressing but Dorset and Devon County Council's felt no longer able to support the project. In conclusion the feasibility of waterborne transport within Poole Bay and along the Jurassic Coast has been explored and although there are serious constraints to overcome (which may be hugely expensive), it could be feasible.

# 3.2.5. Station 5: Beach huts

The results from the first workshop identified the potential need to move or remove the beach huts from their current position (particularly those most vulnerable) in the future. The beach hut community at Studland is a significant one with a strong connection to the site. The general discussions at this station tended to fall into two distinct categories; one guided by those people who love and enjoy beach huts, and the other from those who dislike beach huts and wanted them to be removed from the site. Given their long-standing place in Studland's history and the National Trust's commitment to 'maintain a beach hut presence for as long as is physically possible', the discussions were dominated by ideas for overcoming the challenges specific to maintain beach huts on site.

# A. Moving the beach huts

# Temporarily

- They should be removed to safety in September/October and returned to their original position (if possible) in April/May
- They should be moved into the carparks during this period
- Invest in facilities to move huts rather than hiring a contractor every time a club could be formed to organise it

# **Challenges of this approach:**

- o Higher costs may push families away
- Seasonal movement wouldn't work due to cost and winter use

### Permanently

- o Better to do a one off move more cost effective
- Willing to pay one off payment for permanent move
- Move huts into carpark less carpark could be good, but loss of income could affect the village
- o Work with Natural England to find locations

#### Other

- o Personal solutions are needed
- o Lack of choice may mean site would be less attractive
- o Is there the possibility of continuing the gabions curved design
- o Is there the possibility of groynes cost? Investment?
- Size of beach at South beach is the problem wave energy reflected off gabion wall
- o Would offshore barriers work?

### South beach – beach huts

- Not feasible to move them seasonally so may need to be removed
- Could just rent them during the nice weather
- Remove for winter and put them back in the summer
- Access could become dangerous
- Not worried about future of south beach as little has changed

### Middle beach – beach huts

- Residents' huts should be moved up the hill at Middle Beach
- Could be moved to flat area at Middle beach and/or wooded area behind site where huts currently sit

#### **Knoll beach – beach huts**

- Put wheels on the huts for ease of moving Knoll Beach huts and putting them back in the summer
- Move to carpark and assess situation
- Car park is very flat would this be sufficient to protect them?
- Where the current huts are IS the old car park

The discussion on **removing the huts** resulted in reasons given for why this would not be a good idea:

- Removing beach huts not possible because of covenants
- o Removal of beach huts would be significant loss of amenity to visitors

Although some people felt strongly that they would prefer the site if there were no beach huts at all.

# B. Changing the structure of the beach huts

- Foldable design to be removed during the winter
- Add wheels to huts at Knoll beach to make it easier to move them

# 3.2.6. Station 6: Infrastructure

Following the 'vote' at the first Studland workshop, these three suggestions were selected by workshop attendees:

- Raising up the Ferry Road
- Creating a pier at Middle Beach
- How to keep locals and tourists coming

#### **Questions:**

- How could this be achieved? (who, when, how)
- What would be the benefit of this?

# A. Ferry Road

The discussion began by establishing that Ferry Road is owned by the Ferry Company from Knoll Beach or the "old toll box" onwards. It was pointed out that the vast majority of the road is not at risk as it only floods in one place – the 'Knoll Heights' part. Other participants stated the dip on Ferry Road would flood and should be raised up where needed and others that it was only an issue at the slipway end.

Some participants at the second workshop thought that this issue was not a priority and did not want it raised, but others felt "it will need addressing in future" and needs raising now.

Regarding Ferry Road flooding the following points and suggestions were made:

- Research is needed into where the vulnerable areas are and how much they flood
  - Has there ever been a structural engineer report?
  - It would be useful to include the surrounding area
- Redo the slipways need to deal with both sides of the ferry
- Would it be easier to build a bridge (have to be a lifting bridge)?
  - This would be very expensive
- There is the potential for certain sections of beach to be lost
- Use smaller ferry companies no need to rely on Ferry Road
- National Trust wishes to support the Ferry company to ensure access is open from Studland's point-of-view

#### Who should be involved?

 National Trust, Ferry company, local community, Poole/Bournemouth Borough Councils, Dorset County Council (taken out of hands of individuals), Engineers, Government Statutory bodies, Parish Council (own as far as Knoll House), Natural England, Wessex Water, Marine Management Organisation, and Dorset County Council

- National Trust and Ferry company to look at feasibility of raising parts of the road
- Private company so will need planning permission and the area is a Site of Special Scientific Interest (SSSI)

In terms of funding the project, it would be "very expensive" and there'd be "no government support for ferry" but there is a need to "somehow get public money into raising the road".

# B. Pier at Middle Beach

# Positives and Opportunities:

- o Historically there was a pier at Studland
- Used to be a jetty for boat trips (on wheels, moveable)
- Small scale jetty could be feasible
- o If main ferry is cut off it could provide a landing, e.g. commuting to Bournemouth if there is no ferry and alternative to Ferry Road
- o Access if Corfe Castle is flooded
- o It could bring in more tourists and help visitors get to Studland
- Transport hub have a large car park and option to take people down to the pier to use water taxis e.g. hovercraft – it could relieve traffic pressure
- o Boat service to Swanage
- o Glass bottom boats to keep visitors coming
- Café at end of pier
- If space is lost for facilities due to erosion, the pier could be an area to house those facilities
- o Locals walk along the pier
- o Underwater café
- Fishermen fishing off piers
- Water sports people may benefit from it
- o National Trust would benefit brings in revenue
- o There would be better visitor access, particularly for commuters and families
- Build pier so it acted as a groyne

#### Challenges:

- o Too shallow for water taxis
- o Tide dependant, two tides per day
- Water taxis from Bournemouth/ Poole weather dependent
- o Too expensive to build and maintain
- o None of the operators are currently interested in it
- It could interfere with the longshore drift and natural processes
- Too commercial for Studland, do we want to encourage more visitors
- Spoil natural beauty

An alternative suggestion was to "build a bridge in a fixed position though this comes with other problems, for example traffic"

#### Who should be involved?

National Trust, Bournemouth and Poole Council – lease, Department of Transport, Natural England, Crown Estate, Boat companies

# Who would pay for it?

- o Bournemouth Council stopped maintenance of previous jetty in 1990s
- Heritage lottery grants
- Waterbourne transport bid
- o Put a voluntary levy on parking in Studland to raise money
- Down to National Trust to fund could charge boat fees for landing and ferry charges
- o Private company to fund it

# C. How to keep locals and tourists coming

In this discussion some asked "why wouldn't they keep coming" and stated there has "never been a shortage of demand".

Suggestions to encourage people included "affordable housing for families", "access" and "simple signage of locations and facilities".

There was concern that encouraging people was difficult to do without damaging the area and the high cost of parking limited visitor numbers. Lowering the cost of parking may encourage more visitors.

#### 4. Discussion

### 4.1 Café infrastructure

It is clear that the facilities (food, drinks and toilets) that the beach cafes provide to the participants are important to their enjoyment of the site. There were many ideas put forward for possible modifications and potential relocations of each of the cafes in order to reduce their vulnerability to coastal change.

The overall consensus appeared to be for three different strategies for each of the three cafes:

**Joe's café** is the smallest café, located at Little/South beach, and seen to be 'in-keeping' with its surroundings. The suggestions were to either move the café back when necessary, make the building more mobile or even amphibious; or to shore the café up in its current location. There were concerns that a more mobile structure would be more vulnerable to arson or vandalism which would have to be considered in the design – if that option was chosen.

Middle beach café is in the most elevated position of the three, resting on an artificial bank. The suggestions were to relocate the café to the safest position nearest the beach, the car park was proposed as a possible site in the original workshop scenario, which has been supported as having the added benefit of a better view. However, it is identified that the building would take away parking spaces which would have to be accommodated, in addition to a safe means of accessing the beach. Another consideration identified was the potential for this site to house a visitor's centre and to have a complimentary small, mobile structure on the beach in peak times.

**Knoll beach café** is the most northerly café run by the National Trust. The suggestions were to move it back out of harm's way but to provide a mobile unit on the beach during peak seasons.

# 4.2 Community

The outcomes of the discussions on building partnerships and encouraging stronger relationships between the different 'communities' of Studland appear to show that there is a will to organise an inclusive group or groups of broad representatives. They should focus on specific coastal change topics that the group(s) can influence/contribute to. A beach hut owners association was identified as a possibility, although it is thought a variety of these exist/ed or have been set up very recently, if so it may make sense to combine efforts.

It was suggested that the group(s) could use a custom website in order to maintain communication and information sharing, or use a page on the Parish website. Given that many of the beach hut owners and second home owners are not always available locally the use of social media was identified as a useful option. Other options were noticeboards (non-National Trust) or information in the parish magazine.

The idea of a regatta was proposed as a way of bringing the varied 'communities' together to get to know one another. This was echoed in LiCCo project interviews with local residents who liked the ideas of re-establishing the old Studland regatta event.

### 4.3 Soft coastal defences

The topic of defences in general is one of the most complex and, unfortunately, most divisive. There is a strong feeling by some of the participants that some kind of active defence should be taken at Studland to try and slow erosion. The focus of the discussion was on soft coastal defences e.g. planting marram grass, installing wind fencing and implanting Christmas trees, and later on beach recharge. Soft coastal defences are very popular, although their ability to be established at all of the sites, and their long-term positive impact was questioned. The discussion did not progress to who would work to put these in place, although the idea of a volunteer group had been raised during the first workshop.

The topic of beach recharge was also popular with suggestions of moving sand from the north of the peninsula to the south where it is depleted. If this action was approved by the authorities responsible for the relevant nature designation it would be a constant process.

It was agreed that more information and data is needed about the processes taking place in the Bay and what impact human intervention would potentially have.

### 4.4 Access

In talking about access to Studland, the discussion initially focused on private transport as this is the means by which most visitors arrive. Issues highlighted were the windy, narrow road from Corfe and limited parking at the beaches. However, both these factors were actually helping to limit the speed and number of cars coming to Studland. The idea of a temporary overflow car park during the high season was also proposed as a potentially viable solution.

The discussions highlighted the concern about the safety of cyclists on the road from Corfe to Studland and the impact increasing numbers had on other road traffic and pedestrians. Whilst off-road cyclists can be directed along cycle routes such as the Rempstone Ride, onroad cyclists currently do not have another option.

The difficulty of getting onto South or Middle beaches by anyone with access issues was mentioned with a suggestion that a boardwalk be installed. We heard how the recent funding announced for coastal access was specifically for the England Coast Walk and would include space to move the path back as necessary where erosion took place. The Studland section would be completed in 2015.

Comments confirmed the importance of maintaining the ferry as an access route and protecting it from flooding but that taking steps such as building a bridge would probably not be viable and could increase the number of visitors beyond manageable levels.

It was explained that using buses along the New Road could be problematic because of the sheer numbers of people wanting to travel at peak times, i.e. you'd have many people wanting to arrive and leave the beach at similar times, particularly if the weather turned bad. Discussions suggested that alternative Park & Ride sites be investigated due to issues around the length of bus journey from the current Norden site (see appendix 6.4).

#### 4.5 Beach huts

The general consensus for those who were keen to retain beach huts at Studland was that seasonal movement of the huts could be a possibility as there is space to move the huts in most locations. However, the potential cost of movement and stronger beach huts structures may be prohibitive to some people, and could push families out.

Some people suggested that moving the huts once into more permanent positions that would be safe for the foreseeable future (where available) would make more sense economically. This option was suggested for Middle beach, with the seasonal movement of huts being agreed to be more suitable for huts at Knoll beach. South beach was recognised as the site with the least amount of options due to lack of space, however some suggested that if the situation became dangerous the huts could be moved and stored during the winter then brought back out for summer. Others felt that there had been little change at this location so they were not worried.

# 4.6 Ferry road and beach transportation infrastructure

There was debate about whether the raising of the Ferry road was a necessary step, as only small, specific areas flooded seasonally. Commissioning a structural report would help decide. The road is privately owned and therefore any changes would need to be privately funded. In addition, to the Ferry company, other organisations would need to be involved due to the environmental designations in the area.

Discussions indicated some support for the idea of creating a Pier at Middle beach and the benefits and opportunities one could bring. However, the challenges and constraints are considerable and include the shallowness of the Bay, the cost and lack of commercial interest.

Some felt there would always be plenty of people coming to Studland and that encouraging more could bring problems. Suggestions were made on factors that limit both residents, such as affordable housing, and visitors, for example, lower car-parking charges.

# 5. Next Steps

Studland is a diverse and valuable location for many different user groups, so it is not surprising that there are many different opinions on how various issues should be managed in the future.

This series of two workshops is just the start of an on-going dialogue between the stakeholders at Studland about the future management of the site with respect to the coastal change. As a result of these LiCCo project workshops a broad variety of topics relating to coastal change have been explored and solutions or ongoing challenges identified and discussed. There is a need for further development of the topics identified within this document. Possible next steps could be:

#### • Café infrastructure:

- A series of meetings/workshops, involving stakeholders and representatives, to focus on identifying the preferred facilities and features of any modified infrastructure at each of the beaches as part of the National Trust's Infrastructure Adaptation Project.
- An opportunity for the residents, beach hut owners and public to vote on a short-listed selection of infrastructure designs, for example as a beach display using the voting stations as we did for the 'future proof beach hut' exhibition (we received 2,650 votes over the 2014 Easter Holidays).

### Community:

- Social events to bring people together and see where mutual interests and values relating to Studland can provide motivation for initiatives or actions.
- Formation of group or groups of beach users or existing groups (perhaps by beach location) to keep one another informed and to be key contacts for National Trust and other agency staff where relevant
- Setting up a Forum / Focus / Working group to broaden understanding and enable discussion on the different coastal change issues impacting the 'communities' of Studland. The group could have a Steering Group made up of key organisation and community representatives and a wider membership organising and promoting open, general meetings where guest speakers could provide more information on specific topics. Working groups of agency and community representatives could be helpful to focus on particular issues.
- National Trust to widely publicise updates and information about the Infrastructure Adaptation Project.

# • Soft coastal defences:

- Commission a study into the coastal processes taking place in the bay and the possible impacts of different management approaches
- Research soft coast defence options, for example the effectiveness of planting marram grass

#### Access

- Given that the responsible authorities for road and ferry access are Purbeck
   District Council and Dorset County Council good relations should be
   maintained with their representatives, and the results of the workshop
   should be recorded for future use
- National Trust should consider access onto the beaches and southwest coast path as part of their Infrastructure Adaptation Project

#### Beach huts

- Form beach hut users groups for each beach location or where these already exist merge or collaborate
- o Research options for different beach hut structure and/or locations
- Ferry road and beach transportation infrastructure
  - Develop relations with the Ferry company to enable discussion on potential future access issues with them
  - Follow progress of Waterborne Transport project www.jurassiccoast.org/waterbourne

The LiCCo team will be providing the National Trust with a set of recommended next steps as landowner of the site. The National Trust management is keen to continue the dialogue and will keep those involved in the project up to date with any coastal change information relating to these discussions.

# 6. Appendix

# 6.1 Presentation 2: Questions & Answers

# **Studland Coastal Change Workshop No.2**

# **Workshop Questions and Answers**

# Q What is the next step or is this the last one, are we making decisions?

A Bridget Betts: No, this is an intermediate step - the LiCCo project is coming to an end but this is the start of a process and no one organisation can make a decision or carry the work forward, other organisations and the community need to be involved. We need to look at who is best to take these priorities forward and how to do that. For example, the Swanage Coastal Change Forum was an opportunity that came out of the Pathfinder project. Elli MacDonald: There are opportunities with the National Trust Coastal Infrastructure Project and Coastal Adaptation Strategy to be involved as well – the results of these workshops will feed into this.

# Q Bob Stevens: The comment about gabions and reflected sea is an interesting one. If we had gabions in a zig zag rather than a straight line, would it dissipate the sea more?

A Vince May: I took a look earlier this afternoon, there were gentle waves coming in and being reflected back but when you have a wave going in to meet a wall and going out at an angle, it causes an upward movement and the waves being deflected at angles which is likely to lift sediment up off the floor of the beach. In principle it's a good idea but you'd have to look very carefully at the area you put it in — it needs to recreate a natural pattern. If the beach isn't wide enough, it could erode. I would be inclined to not have vertical walls but to have curved surfaces.

# Q The beaches have changed. The dredging that happens for Sandbanks takes away the material coming up on the shore on Studland. Does dredging make a difference to what happens on the beach?

A VM: It's very difficult to say partly because there is not more monitoring of the beach and bays. The knock-on effects are not well monitored so it's difficult to say 'yes'. We need to understand what is happening in the whole Bay – there is a lot of work in that. The bottom of the Bay receives sand from the beaches but it comes back. Any hard material on the beach will have an impact on sediment transport. Dredging at the harbour mouth will interfere with how the beach behaves but the training bank has some impact. It's important to address if the dredging activity interferes.

# Q How many parking spaces will disappear in the next 10 to 15 years?

**A** EM: The Studland Residents' Guide includes the Environment Agency's erosion risk mapping which gives some indication of what could happen.

Q It goes up to 2030, not 10 years - how can we know that?

EM: It's subject to different estimates and today we will address issues like that.

Q Chris Hodges: I came with the feeling of doom and gloom from the National Trust. Vince May gave me confidence that in a natural scenario, all is not lost.

A VM: There is always a tendency to 'do something' but it doesn't always work. Quite often the coast is surprisingly resilient to what's thrown at it but if there is extensive removal of the beach, it will have implications for the erosion of the beach. Redend Point is a longstanding feature – there's not a lot of change in the sandstone but in the other material around it. The real problem is extensive removal of material from the beach by whatever process.

EM: Studland Bay tends to be affected more by storms than longshore drift issues and it's those types of events we are thinking of - if they come in at a frequency the beach can't recover from that's when impacts will happen.

# Q Do we know whether Poole Harbour Commissioners (PHC) carried out a full and proper Environmental Impact Assessment before they dredged the main channel?

PHC Representative: Yes we did and we have a monitoring system in place - everything is on the PHC website.

# **6.2 Parking Place Questions & Answers**

# Studland Coastal Change Workshop No.2 Parking Place Questions

# 1) The beach is a major earner for the NT & local economy. How much does it earn per year approximately?

"The enterprises at Studland generate approximately £500k contribution in a good weather year. As Studland is part of the [National Trust] Purbeck portfolio this contribution is pooled together and spent across the portfolio on conservation and repair/upgrade work. For example in 2014/5 £25,000 was spent on car park repairs, £200,000 on Corfe Castle repairs, £40,000 on toilet upgrades/repairs, £200,000 on let estate building repairs and £30,000 on tree and track works. At the moment the surplus generated in Purbeck stays in Purbeck but the liabilities of the portfolio are very large."

From: Emma Wright, National Trust Studland Beach Operations Manager

# 2) Do we really want more visitors – we are in danger of destroying what we have

"We do not actively encourage more visitors to Studland and undertake low key marketing mainly aimed at autumn/winter events. We only organise small scale events to engage with visitors and do not market the summer season. The most important thing is managing the visitors we have on site and the access points as being an open site we cannot control the volume of visitors. We try and engage with as many organisers of large scale events as possible to 'manage' the events such as mass cycling and running so that it is sustainable and conflict with other users is reduced. We also issue permits for many activities such as horse riding and kite surfing to limit numbers and conflict."

# From: Emma Wright, National Trust Studland Beach Operations Manager

"We are currently undertaking a detailed ecological study of the Studland peninsula, and are examining how it has changed over the past 80 years. One of the factors we are trying to assess, through academic research with Bournemouth University, is how increased visitor pressure (and other changes in management) have impacted on the site's internationally important habitats and protected species. The results of this study will feed directly into the future management plans for the site, including access policy for visitors.

It should also be noted that our initial results are actually quite encouraging. Visitors appear to have a significant negative impact on the youngest sand dunes (foredunes), particularly on the plant communities and on their suitability for nesting birds. Behind this youngest ridge, however, and across the vast majority of the dune, heath and wetland system, visitor impact remains very low and species such as nightjar, dartford warbler and meadow pipit all successfully nest within 50m of the beach. The informal access routes across the heath actually help keep areas of bare ground open, and this is important for the continued existence of many of the sites reptiles and invertebrates, including many species of international conservation importance."

From: David Brown, Purbeck Ecologist for the National Trust

# 3) National Coastal Erosion Risk mapping is mapping <u>risk.</u> It is not a prediction of where the coast will actually be, therefore over emphasises the line.

The Environment Agency coastal erosion maps show the Shoreline Management Plan (SMP) policy which describes how your stretch of shoreline is being managed to address flood and/or erosion, subject to the conditions described on the webpage. Stretches of coast are divided into 'management units', and for each of these one of four different management policies are agreed. If you look at your area of coastline and click on the coloured line which represents the SMP policy you can view details of the projected erosion rates.

(http://maps.environment-

<u>agency.gov.uk/wiyby/wiybyController?x=357683&y=355134&scale=1&layerGroups=default&ep=map&textonly=off&lang=\_e&topic=coastal\_erosion</u>)

For an explanation of how the Environment Agency predicts erosion rates, see the text below from their website:

Coastal Erosion and Shoreline Management - <a href="http://apps.environment-agency.gov.uk/wiyby/134808.aspx">http://apps.environment-agency.gov.uk/wiyby/134808.aspx</a>

#### **Erosion zone**

The 'erosion zone' is the area of land predicted to be at risk from coastal erosion over a defined period of time – not the area that will definitely be lost. The predicted extent of this zone is shown under 'erosion predicted' in the results table.

Where we know coastal erosion is occurring, we can make predictions based upon historical evidence, ongoing monitoring and other data to estimate where the shoreline position will be at a certain time.

The annual rate of erosion at a point along the shoreline is often unpredictable; erosion often happens in single events at particular places rather than in a steady, uniform manner.

Instead of showing erosion rates, this website provides the erosion zone we expect over three timescales - from 2010 (when this data was developed) up to about 2030, up to about 2060 and up to about 2110. It is shown as a range (e.g. '0.5 - 3.2 metres') that represents the upper and lower limits of the erosion we should reasonably expect to that time. Predicting coastal erosion is an uncertain science, and providing an exact position of the shoreline in the future would provide a misleading impression of precision and certainty.

Coastal planning documents, such as Shoreline Management Plans, also show this information. Long term predictions are required for planning coastal management policies into the future, which requires evidence upon which to base planning decisions.

# How do we predict coastal erosion?

It's crucial that we understand and can predict large-scale, longer-term coastal changes, so that we can manage the risk to coastal settlements and the natural environment more effectively.

To predict erosion, we use a range of advanced monitoring techniques to assess its causes and ongoing impact. This includes using aerial photographs, maps and surveys of coastal processes, which can then be analysed by teams of scientists. Records of historical rates of erosion on the coast also inform our predictions of how the coast might evolve in the future.

We can then use this detailed information about our coast to:

- make predictions about the rate and impact of erosion;
- assess existing coastal management methods and how cost-effective they will remain over time;
- make informed decisions about future management, to ensure we tackle coastal erosion issues where the risk is greatest.

We are using the most up-to-date data on climate change, advanced modeling techniques and the best local survey information available to display coastal erosion predictions across England. This information will be easily accessible to everyone from our website, so that all who live at, work on and manage the coast are better able to decide how to approach coastal change in their local area.

# 4) Who was responsible for the radioactive tracing in the 50's?

The experiments were carried out by the Hydraulics Research Station in the 1950s, see for example HYDRAULICS RESEARCH STATION LTD (1957) *Radioactive Tracers for the Detection of Offshore Beach Movements. Report of a Pilot Experiment at Poole in 1955*, 12pp. Their contact details are HR Wallingford, Howbery Park, Wallingford, Oxfordshire, OX10 8BA or email: info@hrwallingford.com

5) Not enough info has been given to make sensible suggestions. i) What is the impact of dredging? ii) Who would bear costs of raising ferry road? iii) What are the responsibilities of the NT?

The purpose of the second workshop was to include agency representatives and experts who could contribute to the discussion about the practicalities of suggested options. We were keen to support the community to put forward their comments and suggestions with minimum constraints at the first workshop. Before any suggestion became a reality, more in-depth discussions would take place with the relevant agencies and appropriate experts.

# i) Does the dredging of the mouth of Poole Harbour have an effect on Studland beach?

The dredging has no direct effect on Studland beach. Some sand stirred up by the dredging may find its way into the bay. Adjustments in the offshore sand banks may also produce some local loss of sand, but there is no direct evidence that significant changes have occurred to the beach as a result of dredging. Over the last century, there has been a general tendency for the seabed off Studland to become shallower as large volumes of sand are deposited creating sandbanks. This should reduce the wave impact on the beach - except during major storms.

### From: The Residents' Guide to Coastal Change in Studland

Therefore, we cannot be absolutely certain the dredging has no impact on Studland's beaches but if it does it would be minimal.

**ii)** Ferry Road is a private road, owned by the Bournemouth-Swanage Motor Road and Ferry Company - any work to this road would be funded by the owner.

iii) The National Trust at Studland has developed a coastal adaptation strategy (CAS) for management of the coast at Studland into the future, which follows the guidance and format provided by the Two Bays Shoreline Management Plan and the Poole Bay, Poole Harbour and Wareham Flood and Coastal Erosion Risk Management Strategy developed by the Environment Agency in partnership with local authorities (Dorset, Bournemouth, Poole and Purbeck), Natural England, English Heritage, the National Trust, RSPB and Poole Harbour Commissioners. The Draft Consultation Document for this Strategy was sent out in 2013 to Town and Parish Councils (including Studland) for comment. There were also opportunities for communities to give their feedback. The National Trust's Studland CAS takes a long-term view and will be reviewed every three years to take account of any new information.

The National Trust as an organisation have adopted a long-term 'light touch' adaptation approach to coastal management which recreates a naturally functioning shoreline. It involves 'rolling back' key infrastructure, for example repairing a footpath that gives access to a popular beach in a simpler and more cost effective way than before, knowing it might be swept away in the approach to coastal management, working with natural processes.

### From: Laurie Clark, National Trust Purbeck General Manager

"As far as coast protection is concerned, responsibilities lie under the Coast Protection Act 1949 with local authorities, in this case Purbeck District Council, and landowners. Action to protect their land against erosion by landowners is subject to the myriad planning and environmental regulations. Paying for the works can be borne by the landowner. Financial support under the CPA 1949 is subject to cost-benefit assessment which is based upon evaluation of the assets (built typically) against cost of construction. In practice the higher the value of property the more likely that funding will be provided. There is a growing view that the cost-benefit approach is inequitable and that the funding should be based upon the level of risk."

From: Professor Vince May, Emeritus Professor of Coastal Geomorphology and Conservation, Bournemouth University

6) At the start 67% people in the previous said they wanted natural. Yet nearly all discussions was about destroying the natural environment by building things – gabions, road raising, cafes. How much discussion about keeping it natural? – none!

The soft coastal defences station at the second workshop was a chance to discuss the options for the beach and coastline within the coastal management policy for the area, as set out in the Government's Shoreline Management Plan, and in keeping with the National Trust approach of working with natural processes.

# 7) Consider enlarging training bank which would less damage the natural look of the coastline

It is difficult to answer this without being clear about what is meant by "enlarging". Assuming it means **lengthening**, this would have significant implications for all boats using the harbour entrance. The ferries and similar larger vessels would probably not be affected as they would simply continue following the same line into the entrance to the harbour. It is an obstruction to navigation and so would have to go through a lengthy process for permissions which are unlikely to be granted.

Increasing the height of the existing bank would meet similar concerns as well as becoming more obvious and reducing the naturalness of the location.

With regard to the sediment movements in the bay, the training bank at present restricts the movement of sand out of the bay. The sand in the bay typically moves onshore or offshore, between the offshore banks or alongshore towards the training bank. It is unlikely that enlarging the training bank would have a significant impact on the key problem which is the limited and variable supply of sand to Middle Beach. Holding more sand alongside a larger training bank might have the unintended effect of further restricting the sand which can and does arrive on Middle Beach.

# 8) Research offshore dredging – who is doing it? Where? Why? What effect is it having on Studland Beach? A fundamental question

(See also the answer above to the previous question about dredging)

### How is the mouth of the Harbour kept open?

Two spits, Sandbanks to the north and Studland to the south, define the entrance to Poole Harbour. They are approximately 300m apart, with deep water between them. The mouth of the Harbour remains open due to the flows created through the Harbour entrance by tidal variation, the change between low and high tide, resulting in the entrance self-scouring. The depth of the Harbour entrance can drop to 18 metres.

Within Poole Harbour navigation channels have been dredged since the beginning of the 1800s. The frequency and volume of material dredged varies from year to year. The total volume dredged between 1969 and 2002 was 2,055,000m<sup>3</sup>. Typical annual volumes of maintenance dredging for 1990 – 2000 were 65,000m<sup>3</sup>/year. Over the last 500 years the size of the ships entering the harbour has grown. The main shipping channels were last dredged in November 2005 to allow modern ferries to enter the harbour. The channels were deepened from 6 metres (20 ft) to 7.5 metres (25 ft). The largest ship to enter the harbour, to date, is the 186.5 metre *Norman Voyager* on 15 October 2013.

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### From: The Residents' Guide to Coastal Change in Studland

i Halcrow, 2004a. Poole Bay and Harbour Strategy Study. Main Report and Technical Annexes 1-9. Report produced by Halcrow Group Limited for the Poole Bay and Harbour Coastal Group, January 2004.

ii Royal Haskoning, 2010. Two Bays SMP2 – Hurst Spit to Durlston Head. Main Report and Appendices A-M.

http://www.bournemouthecho.co.uk/news/10744676.186 metres long and over 26 000 tonnes the N orman Voyager makes a brief visit to Poole/

Poole Harbour Commissioners carried out an Environmental Impact Assessment before they dredged the main channel and have a monitoring system in place – these are available on their website: <a href="http://www.phc.co.uk/publications">http://www.phc.co.uk/publications</a> monitor.html

# 9) How can Studland beach get an adequate share of the sand replenishment that happens locally? Most is dumped at Bournemouth and Swanage?

## Where is the dredged material from the Harbour deposited?

Poole Harbour is generally silty in the west but becomes more sandy eastwards towards the harbour limits. The main shipping channels are dredged approximately every second year, with sand being disposed either off Old Harry Rocks or being used for beach recharge at Poole, Bournemouth and Swanage. Every effort is made to re-circulate silts within the Harbour in order to maintain mudflats and saltmarsh, and this is done by slowly discharging material east of Brownsea Island.

### From: The Residents' Guide to Coastal Change in Studland

"There are a number of issues about Studland receiving dredged material.

- If PDC were to consider a scheme to recharge Studland's beaches then this would need to be done using a grant from DEFRA. It would have to be supported by a cost benefit analysis and, as there is no significant development there, this would not be achievable.
- The policy in the Shoreline Management Plan for Studland is generally for "no active intervention" which would preclude recharge works. The intention is to allow the beaches to respond to the natural processes. This is consistent with the National Trust's aims in the Shifting Shores document.
- Putting sand on the beach would need various consents and licences which would not be consistent with the above policy.

It is only the Coast Protection Authority i.e. PDC that can get a grant. The National Trust would have to go it alone and also get the necessary licences.

There is a spoil ground off Ballard and the Poole Harbour Commissioners have used this [to deposit dredged material]. The tide is ebb dominated so if any sediment gets back [to Studland beaches] it is not going to be much.

# From: Mike Goater, District Engineer at Purbeck District Council (PDC)

"The reason Studland does not get any of the sand from Poole Harbour is one of simple economics i.e. who would pay

When PHC [Poole Harbour Commissioners] dredge they have the permission to dispose of it [the material] at the [spoil ground] off Swanage. This is in deep water (20m) in a high tidal energy environment. Studies for the harbour deepening in 2005/06 indicated that the heavier material placed here i.e. sand, was normally lost from the coastal system in that it continued to go 'downhill' into the channel, [because] the tide vector here is ebb dominated. Therefore none or very little would come back towards the harbour or Studland.

Technically there is no reason why sand could not be pumped onto the beach in a similar manner to that done in Poole. However there are a couple of issues that stop this from happening, these are:

- There would be no government funding available for this as there would not be the required cost / benefit ratio [the cost-benefit ratio is currently set at between 1:8 to 1:10 with £1m available per £8m to 10m infrastructure protected].
- The costs would be higher than Poole as the dredger here discharged on the 5m chart datum contour which was 700m from the beach, the closest in Studland Bay for the same depth of water is more like 1500m which would be close to the dredgers limit to pump. If you wanted to then spread it out along the beach by pumping you would need a bigger dredger requiring more water depth and probably a greater cost.
- Either the land owner or the residents would need to raise the funds to undertake the work.

The cost for Poole was about £15m for 139,000m3. It cost us £300,000 to get the machinery to site before we pumped any sand so if you were only looking at say 10,000m3 the costs would be about £40/m3 as an estimate. On top of this you would need a Marine Management Organisation licence which may require an Environmental Impact Assessment and then pay the crown about £0.75 for every m3 of sand you put on the beach as the Oueen 'owns' the sand.

The dump site is shown below as a circular spoil ground in line with Ballard Down. As far as I am aware the dump site has been in existence and used by PHC for over 100 years, in recent years it has been used every year as anyone dredging in Poole Harbour uses the disposal site. In 2005/06 when the capital dredge was done about 1 million m3 of silt and clay was

deposited, at the same time 1.1 million m3 of sand was pumped onto Swanage, Poole and Bournemouth beaches and since then the spoil ground has continued to be used.

There has been a change in recent times whereby increasing volumes of silts dredged from Poole Harbour are being placed just off Brownsea Castle so that the silt is redistributed on the tide back around the harbour to try and naturally replenish the saltmarsh/mud flats."

From: Stuart Terry, Coastal Works Manager at Poole Borough Council



Image from Poole Approach Chart, British Crown Copyright, 2014

"If the beach is recharged by bringing sand from elsewhere, the extent to which the new beach provides lasting protection would depend upon several factors. First, the actual amount deposited and its composition. Ideally it should be sufficient to prevent waves reaching the gabion structures, etc. This is to prevent waves reflecting from the structures because this has two significant impacts a) these waves move sediment seawards lowering the beach and b) if they meet incoming waves the water is forced upwards lifting sand in particular into suspension. South Beach and the southern end of Middle Beach have always had a substantial proportion of gravel which is more resistant to wave action. Maintaining this would be sensible.

Second, although the normal beach profile provides adequate protection, sand will gradually be lost northwards by longshore transport and so, for the long-term maintenance of the beach, would need periodic replenishment. South Beach is less exposed to this problem as it is both more sheltered and Redend Point acts as a natural groyne restricting northwards transport. It also has a higher gravel content.

Third, most damage occurs when waves attack from the SE or E. The beach is eroded and the old dunes of Middle Beach northwards to Knoll Beach are cut back, sometimes several metres, before being covered once again by the naturally rebuilt sand beach. The replenished beach may reduce the impact of the storm events, but it won't necessarily prevent shoreline retreat."

A note on Beach recharge from: *Professor Vince May, Emeritus Professor of Coastal Geomorphology and Conservation, Bournemouth University* 

- 9) Disabled Access to beaches concerned to ensure that wheelchair access is maintained / improved in the long-term.
- 10) Access to Middle Beach must be improved it is dangerous and not elderly/disabled friendly.

"Less able access on a beach with very fine sand will always be a challenge. We have large balloon tyre wheelchair for free loan at Knoll beach which are very popular with visitors. Each one costs £4500. We have trialled all terrain motorised vehicles for wheelchair users but unfortunately these got stuck in the sand. We are always looking for new innovations which will help visitors and are open to suggestions."

From: Emma Wright, National Trust Studland Beach Operations Manager

# 11) Stabilize cliff edge at Middle Beach in front of Toilets and Café and watersports hut. NOW

# 12) Zig/zag to Middle Beach must be improved or closed!!

"The terrain of the slope from Middle Beach car park to the beach is very difficult to work with as it is not only steep but water run off causes the cliff to become unstable. We removed the steps and created a slope as previous feedback from wheelchair/ pushchair users found the steps impossible to use. We have added new drainage to the area to prevent heavy run off from the car park. However we will not undertake major works to the area in its current condition but will ensure the access is fit for purpose. In our literature we do not advise using Middle beach for less able visitors as access is difficult but Knoll Beach has better disabled parking, access and facilities."

From: Emma Wright, National Trust Studland Beach Operations Manager

# 13) Too much dog mess on the area around beach huts

"A new dog bin at Middle beach has helped with the mess in that area and we move resources around the site or introduce new bins as problems arise. It should be noted that we have at least 19 dog waste bins on site with free bags for owners and they can use any of the general waste bins to deposit. There is no excuse for owners!"

From: Emma Wright, National Trust Studland Beach Operations Manager

# 14) Your results are likely to be very biased by groups able to attend. 3 – 5pm on a weekday doesn't suit anyone who works or has children.

We considered the timing of the Studland workshops carefully to give as many people as possible the opportunity to contribute to the discussions. The first workshop was held in the evening from 6:30 to 8:30pm and the second in the afternoon from 2:30 to 5:30pm. When we invited people to the first workshop we asked for information about their availability which helped us to see which time was convenient for most people.

# Question received by email after the workshop:

15)Would it please be possible to set up a 'South Beach Strategy Group' to discuss, develop and ultimately implement a strategy for the future of the South Beach? Invitees could be all relevant stakeholders (e.g. village residents, National Trust, hut owners, beach holiday makers (if possible), Bankes Arms management, owners of Harry Warren House, Jose (cafe owner), the Local Authority (re Public Toilets, route of coastal path) etc etc)

In the 'Next Steps' section we suggested that having group(s) of beach users is helpful to ease communications. It was also recommended that some form of Forum or working group be set up to comprise of all the relevant stakeholders as you suggest. This group or groups could work through issues to reach consensus solutions within the environmental constraints that exist at the site and in keeping with the policy of the Shoreline Management Plan and landowner, The National Trust, who take an adaptation approach to coastal management. In terms of setting up such a group it would depend on whether the consensus was for a community-based Forum with working groups or for a number of separate groups to be formed such as the one mentioned here which could be instigated by the National Trust if it were to focus on a particular Trust owned site?

# 6.3 Government and organisational representatives

David Brown Ecologist, National Trust

Richard Edmonds Earth Science Manager, Jurassic Coast Team

Deborah Fiddik Public and Community Transport Development

Officer - Dorset Highways, Dorset County Council

(DCC)

Mike Garrity Principal Planning Officer, DCC

Dave Harlow Coastal Protection Manager, Bournemouth Borough

Council

Stephen Howard Strategy & Community Liaison, Dorset Highways, DCC

Mike Lovell PDC Councillor (for Corfe Castle and Studland)

Andrew Nicholson Land Management and Conservation Adviser, Natural

England

Steve Pearce Hydrographic Surveyor, PHC

Jenny Penny Senior Coastal Ranger, Dorset Countryside - Coastal

Ranger Team (Osmington to Studland), DCC

Andy Ramsbottom Harbour Engineer, Poole Harbour Commissioners

Rachael Shefford Countryside and Tourism Officer, Planning and

Community Services, Purbeck District Council (PDC)

Stuart Terry Coastal Works Manager, Poole Borough Council

Carmel Wilkinson Countryside Access Manager (Coastal), DCC

# 6.4 How much does it cost to run a Park & Ride?

\* Information about Park & Ride schemes provided after the workshop by Deborah Fiddik, Public and Community Transport Development Officer, Dorset Highways - Dorset County Council.

"The public costs of running a park and ride scheme can be considerable. It is almost impossible to predict what a service would cost in the future but these current guide prices for the park and ride in Weymouth will give an indication:

- The Weymouth Park and Ride service is run by Dorset County Council and operates all year round seven days a week from April to the end of September and Mon Sat from October to end March. The service runs from 0730 (0800 Sat) to 1815 with a slightly later finish during the summer months.
- There are two dedicated vehicles (39 seat Optare Versas) and one spare operated by a team of up to eight drivers.
- Car park revenue is returned to DCC.
- Parking costs are £3.00 per vehicle during the summer and £2.00 in the winter. Up to seven passengers in one vehicle ride for free on the bus.
- The journey is 1.9 miles in each direction and buses run every 15 minutes from the Park and Ride site and from Weymouth seafront. Journey time is approx. 12 minutes in the summer.

The cost of the Weymouth service is currently around £300,000 per annum.

The figure for a scheme in Purbeck will vary depending on several 'unknown' factors. These include (but are not the only factors to consider) and assume that the service would run from the Norden Park and Ride site:

Whether the passengers pay to park but ride on the bus for free or whether they park for nothing (or a reduced price) and pay a fare on the bus. If fares are paid on the bus, the service should be registered and run to a timetable. If this is the case, it has to be registered with the Traffic Commissioner and run to a published timetable. This can only be varied by lodging an amendment with the Traffic Commissioner which usually requires 56 days' notice. If fares are not taken on the bus, the service would run to a timetable but this could be varied more easily if for instance there was an evening event where the service might be required to run later.

- How many vehicles are needed to run a reliable, frequent enough service at 5.8 miles (using the B3351) the route is nearly three times as long as Weymouth so more vehicles or a reduced frequency would have to be considered. Reducing the frequency makes the service less attractive to passengers.
- Whether there are rental costs for the park and ride site.
- Whether the service would be seasonal and how long it would operate each day."