KENT AGGREGATE IMPORTS

A Study of Aggregate Imports into Kent & Medway (excluding road imports) on behalf of Kent County Council

February 2006

Land & Mineral Management Ltd

KENT AGGREGATE IMPORTS

STUDY – FEBRUARY 2005

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1. INTRODUCTION

1.1 For several years now, Kent County Council (KCC) has been aware of the growing importance attached to its aggregate import facilities (including Medway) in the national, regional and local context. KCC acknowledges that this has been due to a combination of factors, but mainly to the significance of Kent & Medway's strategic location, their foreshore availability/accessibility and the knowledge that local land won mineral resources are gradually depleting.

1.2 Although not specific to Kent, a number of independent reports referring to aggregate imports and their facilities in the south east have been published in recent years. These reports have merely served to enhance KCC's views that consideration should be given to the development of a suitable safeguarding strategy for existing sites for such aggregate importation facilities - which may also be necessary for potential new sites.

1.3 KCC views here are consistent with national and emerging regional policy in that the ODPM has recently published the following related documents:-

- **Consultation on proposed changes concerning minerals in the Regional Planning Guidance for the South East (RPG 9).** Of the five new policies in this document, draft Policy M5 states *"Mineral planning authorities should assess the need for wharf and rail facilities for the handling and distribution of imported minerals and processed materials, and identify strategic sites for safeguarding in their minerals development frameworks. These strategic facilities should be safeguarded from other inappropriate development in local development documents"*

- **Consultation Paper on Annexes to Minerals Policy Statement 1** which states in Annex 1 (paragraph 1.2.3(h)) that the objectives of policy are " *to reduce the environmental impacts of the movement of aggregates and encourage movement by water and rail by safeguarding existing wharves and railheads and, where appropriate, provision of new facilities for this purpose"*

1.4 For the above outline reasons, KCC commissioned consultants to carry out a study on Kent & Medway's current aggregate import facilities and the issues affecting or likely to impact on these operations or their future expansion potential. The study would include an analysis of information gained in questionnaire responses from known operators and from site visits conducted at most locations.

1.5 The study would also include advice to KCC on possible measures to incorporate in new draft policies which could help facilitate safeguarding of existing and potential wharves/rail depots and also provide some guidance to Medway Council and other organisations involved with the potential development of such sites.

2. BACKGROUND SUMMARY OF 1990 KCC REPORT OF SURVEY AND MAIN ASPECTS OF 1993 KENT MINERAL LOCAL PLAN ON AGGREGATE IMPORTS INTO KENT

2.1 Principle Documents involving Aggregate Imports into Kent

2.1.1 The current Kent Minerals Local Plan for Construction Aggregates was adopted in December 1993. Much of the background to this document was derived from information collected from a detailed survey of the overall picture and influences affecting the supply of construction aggregates in Kent (prior to the creation of Medway Council). This document was referred to as the 'Report of Studies' and was published in September 1990.

2.1.2 Chapter 4 of the Report of Studies was dedicated to imports of aggregate into the County from other British (and some foreign) sources. It is understood that this was the first document to focus on Kent's aggregate import position and has not since been reviewed.

2.1.3 However, a number of other independent reports covering the regional or national positions on aggregate imports have been completed in recent years. These reports either directly or indirectly relate to aggregate import facilities in Kent. The reports are entitled as follows:-

- South East England Regional Aggregates Working Party (SEERAWP) 02/02) – Survey of Marine Wharves and Rail Depots in the South East Region – Their capacity for use by the Aggregates Industry
- South East England Regional Assembly – Aggregates Monitoring Report 2003
- British Geological Survey (Commissioned Report CR/05/041N) – The Role of Imports to UK Aggregates Supply
- London Plan Implementation Report (LPIR), January 2005 - Safeguarded Wharves on the River Thames

Summaries of each report (where relevant to Kent & Medway) are provided in Appendices 1 – 4 of this study.

2.1.4 Aspects of the previous reports will be referred to later in this study. However, as a basis for understanding some historical influences on aggregate imports into Kent, it is considered appropriate to initially highlight the main points and relevant criteria upon which aggregate import facilities were reviewed in the 1990 KCC Report of Studies, and this is illustrated in the next section.

2.2 Kent Minerals Local Plan – Construction Aggregates, Report of Studies (September 1990)

2.2.1 As stated in section 2.1, this was a comprehensive survey document based on an information gathering exercise (carried out mainly during the late 1980's) in advance of the developing Minerals Local Plan. The report was completed at a time when the growth in demand for construction materials (particularly aggregates) was at its peak and concerns were raised about some of the predictions for future demand forecasts.

2.2.2 Chapter 4 of the Report of Studies focused on aggregate import types and how they arrived in Kent – being Hard Rock (land won crushed limestone, granite, sandstone etc. imported by sea and rail almost entirely from British sources) and Marine Aggregates (sea dredged sand & gravels from British licence areas). It then identifies a number of existing and potential sites to which aggregate import facilities are being or could be landed at in the future.

2.2.3 **Hard Rock Imports by Sea**

Hard rock imports to Kent by sea had traditionally been low key in comparison to land won aggregates until significant investment took place at the Grain Terminal, which heralded a marked increase in hard rock imports by the late 1980's (note:- at this time, it was likely that only 4 Kent wharves were importing hard rock aggregate – being Grain, Robins Wharf, Stanley's Wharf & Whitstable).

The most significant source of imported land won hard rock at that time arrived by sea from the new Foster Yeoman 'Superquarry' at Glensanda, Scotland. Imports of this aggregate to the deep water wharf facility at Grain Terminal needed to be carried out by new large bulk vessels of over 50,000 tonne capacity on a regular basis.

More bulk shipments to Kent from other British or European 'superquarries' were then presumed to follow in the plan period, due to the extremely high demand forecasts at that time. The report recognised that the County would need to identify the vessel capacity each potential wharf could accept as a precursor to understanding all the other aggregate import issues which would have to be taken into account as part of the overall picture.

The Report of Survey set criteria on future hard rock importation opportunities based on the maximum potential cargo capacity/draught of vessels which could berth at Kent wharves. Three categories were identified and as shown in Table 1:-

Table 1 Report of Survey Hard Rock Import Wharf Criteria

Vessel Cargo Size	Vessel Draught Range	Site Potential/Availability
>50,000 tonnes	9-12 metres	Medway - Sheerness, Grain, Oakham Ness Thameside - Alpha Jetty(Cliffe) Dover – the Outer Harbour
30,000 – 40,000 tonnes	8-10 metres	Medway – Chatham & Rochester Thameside – between Dartford & Gravesend Dover – RoRo berths up to 8 metre draught
500 – 5,000 tonnes	Various	Various down to the smallest believed to be at Richborough

2.2.4 Hard Rock Imports by Rail

Until the emergence of Glensanda, hard rock imports to Kent were almost entirely by rail from land based quarries in the Mendips and East Midlands. Only two operational rail import depots existed in Kent at this time (being Allington and Hothfield). It was believed at that time, that hard rock imports were used almost entirely for road construction and maintenance projects.

Potential new import points were also reviewed at that time based on a filtering process of suitability applied to the road & rail networks, and then a comparison made of the first potential sites with all known planning constraints at that time. Only 9 sites were then identified as having some potential for rail depot development.

2.2.5 Marine Aggregate Imports (Sea Dredged Sand & Gravels)

Aggregate imports arising from sea-dredged sources were recognised as being extremely significant to Kent in this report. Figures recorded in 1987 (Appendix 1, Table 2.3 – Second Addenda to Report of Studies, September 1991), stated that 3.3m. tonnes of sea-dredged aggregates were landed in Kent. This represented 41.8% out of a total 7.9 m. tonnes of construction aggregate produced in Kent (excluding building sand). Furthermore, concerns about the use and suitability of sea dredged aggregate for concrete manufacture were proving to be groundless.

There were probably 14 wharves handling the import of unprocessed sea dredged aggregate by dredger or processed marine aggregate by smaller vessel/barge – having been transhipped from other Kent wharves. A list of all operational aggregate wharves was produced in Appendix 3 to the original Report of Survey.

Existing marine aggregate import wharves were considered to be smaller than hard rock wharves in terms of berthing requirements (i.e. size of vessel and water depth availability). Therefore, imports were predominantly made by dredgers with cargos of unprocessed marine sands and gravels, varying in cargo size of between 550 – 5,200 tonnes capacity.

The report went on to describe the current and projected marine aggregate sources (being predominantly from the Southern North Sea) – which KCC recognised as being available to secure a long term future for marine aggregate imports into Kent and the South East in general.
With regard to potential new marine aggregate sites, KCC believed the main considerations in assessing the potential for new import points were:-

- Existing wharf capacity
- Vessel type and operational requirements
- The availability of new wharfage
- Accessibility in transport terms

The DoE's expectation (in their 1985/86 study) was that existing wharf/plant facilities in the South East could cope with up to a 2 million tonne increase in demand for marine aggregates – with new larger and self discharging vessels coming on stream. However, KCC had concerns about this comment in that many existing wharves in urban locations had limited scope for expansion.

The aforementioned DoE study also noted that in the south east there was little scope for new landing sites and the PLA (Port of London Authority) had advised that there was limited potential for converting existing wharves for aggregate import usage.

2.3 Summary of Survey Position on Wharves and Rail Depots taken into 1993 Kent Minerals Local Plan

2.3.1 Operational Aggregate Import Facilities

At the time the 1993 Kent Minerals Local Plan was published, it was stated that 17 aggregate import facilities were operational. These consisted 15 wharves and 2 rail depots as identified in Table 2 below:-

Table 2 Operational Aggregate Import Facilities in Kent (1993)

Wharves		Rail Depots	
Operator	**Site**	**Operator**	**Site**
Redlands (now Lafarge Aggregates)	Johnson's Wharf	ARC (now Hanson)	Allington Depot, Maidstone
Hall Aggregates (now Cemex)	Botany Marshes	Tarmac	Hothfield Depot, Ashford
Maxwell (now Foster Yeoman)	Robin's Wharf		
Thompson Group	Imperial Wharf		
J. Clubb Ltd	Denton Wharf		
Bretts	North Sea Terminal, Cliffe		
Foster Yeoman	Grain Terminal		
Brevmoor	Frindsbury		
Hall Aggregates (now Cemex)	Rochester		
Anglo-Sped Ltd	Stanley's Wharf		
United Marine Aggregates Ltd	Ridham Dock		
Bretts	Whitstable		
Bretts	Richborough		
Halls (now Cemex)	Wellington Dock, Dover		
Nickolls/Powell Duffryn	Granville Dock, Dover		

2.3.2 Adopted Aggregate Import Policies in the 1993 Kent Mineral Local Plan on Construction Aggregates

Taking into account all the information obtained from the Report of Survey, KCC prepared 6 new aggregate import planning policies for their new Minerals Local Plan. The new aggregate import planning policies are contained within Part 3 of the published document (see full list of these current policies in Appendix 5).

2.3.3 Proposed Import Locations Identified in 1993 Kent Mineral Local Plan

Policy CA4 of the MLP identified potential site areas for new wharves and depots or for the expansion of existing import facilities. These consisted of 8 potential wharf site areas and 7 potential rail depots as follows:-

- **Wharves**
  Stone Marshes, Dartford*
  Isle of Grain
  Sheerness, Queenborough*
  Ridham Dock
  Dover Harbour
  Richborough*
  Cliffe Terminal
  Strood*

- **Rail Depots**
  North Farm, Tunbridge Wells*
  Holborough, Medway Gap*
  Allington, Maidstone
  Shelford, Canterbury*
  Hersden, Canterbury*
  Sevington, Ashford
  East Peckham*

  (note – sites marked * have not since come forward with new or expanded wharf/rail aggregate import facilities)

3 REVIEW OF NEW SURVEY INFORMATION AND COMPARISON WITH 1990 KCC REPORT OF STUDIES

3.1 Questionnaire Survey

3.1.1 As part of the study requirements agreed with KCC, questionnaire forms were prepared and sent out to the companies thought to be operating or in control of existing aggregate wharves and depots as shown in the 1993 Kent Minerals Local Plan for Construction Aggregates. Operators were also requested to complete additional forms for any wharf/depot sites which they had control of and wished to be safeguarded in the future for potential aggregate import facilities.

3.1.2 Before all questionnaire response forms were returned, site visits were arranged to most of the wharves and rail depots to obtain more information and assist in the understanding of activities and facilities used on each site. This was considered necessary in case not all questionnaires were returned completed as requested.

3.1.3 The information gained from returned questionnaires was supplemented and combined with notes taken from site visits and discussions with site managers/owners (together with some site photographs taken for subsequent reference purposes).

3.1.4 The combined information has been incorporated into separate individual schedules for each operating wharf and rail depot site. The schedules (site evidence sheets) also contain references to general planning constraints affecting each site. For operators confidentiality reasons the schedules are not reproduced here and are not available separately, but the following sections of this study should provide a reasonable understanding and background knowledge on the overall size and nature of Kent's aggregate import facilities.

3.2 Comparison between 1990 KCC Report of Survey and Existing Aggregate Import Facilities

3.2.1 Marine Wharves Lost or Gained

Appendix 3 of the KCC Report of Studies 1990 identified 15 operating wharves. From the latest questionnaire responses/site visits, it is apparent that there are again 15 wharves operating. However, there have been some changes during the 15 year period that has elapsed and these are detailed in Table 3:-

Table 3 Aggregate Wharves 'Lost' or 'Gained' since 1990

Wharves 'Lost'		Wharves 'Gained'	
Imperial Wharf, Northfleet (ceased in mid nineties)	Site owners are wishing to redevelop this small site.	Robins Wharf, Northfleet (opened early nineties) - note: Bretts share the same jetty/ conveyor discharge facilities with Foster Yeoman.	In 1990 there was an unimplemented planning permission to import marine aggregate and erect a new processing plant. Shortly after, Bretts completed construction of additional wharf facilities/new plant.
Corys Wharf, Rochester (ceased in 2005)	This former RMC (Halls) site was acquired under CPO powers by Medway Council for an area regeneration project.	Red Lion Wharf, Northfleet (opened mid nineties)	Part of this former power station site is now used by Norwegian firm Stema for the importation of their land won hard rock (Norway) and sand (Denmark) products, and some slag aggregate.
Stanleys Wharf, Rochester (ceased in mid nineties)	Site may have changed ownership or considered uneconomic for aggregate usage.	Ridham Dock (East), Ridham (opened early nineties)	Bretts probably started wharf aggregate imports (hard rock) to support their nearby coating plant.
Richborough (ceased in mid nineties)	Site was used by Bretts, but understood to be closed due to operational or economic reasons.	Ramsgate Harbour, Ramsgate (opened late nineties)	Bretts may have started aggregate imports following completion of new the Pegwell Tunnel port access route in recent years.
Wellington Dock, Dover (ceased early nineties)	Former RMC (Halls) site closed in early 1990's due to Port Authority regeneration aspirations for dock areas.	Western Docks, Dover (opened early nineties)	This site emerged as a joint operation between Bretts and RMC (Halls) shortly after closure of RMC (Halls) aggregate wharf at the nearby Wellington Dock.
Granville Dock, Dover (ceased late nineties)	Former Nickolls/Powell Duffryn site closed due to Port Authority regeneration aspirations for the docks.	Folkestone Harbour, Folkestone (opened late nineties)	Low key aggregate import facility run by Bretts.

In addition to the 'start and finish' situation for the period described in Table 3 above, No.2 berth at Chatham Docks was temporarily used for a short period (understood to be Stema - possibly between 2000 & 2002) to import foreign aggregate from Norway. The imports were believed to be land won sand & gravel and hard rock - see comments on foreign imports in Appendix 3. It is understood that Chatham Docks have not since been used for aggregate imports.

3.2.2 **Rail Depots Lost or Gained**

Appendix 3 of the KCC Report of Studies 1990 identified only 2 operating rail depots – both of which imported only hard rock from Mendips/East Midlands at that time. From the latest questionnaire responses/site visits, it is apparent that there is a third depot operating in Kent at Sevington, Ashford – albeit on a low key basis for the time being. Therefore, no depots were 'lost' during this period.

However, one depot has been 'gained' since 1990. It is understood that the rail sidings at Sevington were established during the early/mid 1990's to meet construction material needs for the CTRL construction contracts. Upon completion of these contracts the sidings were left unused for a few years until a temporary permission was granted for the importation of aggregate. Bretts have recently submitted an application for a permanent import/export facility here.

3.2.3 **Reasons for Aggregate Import Facility Losses & Gains**

3.2.3.1 Reasons for Losses:-

There are several clear/apparent reasons why aggregate import facilities have been lost in the intervening period. These are simplified as follows:-

- wharf lost through operator's voluntary closure
- wharves lost due to landlords redevelopment aspirations
- wharf lost due to CPO
- wharf lost due operational difficulties/unviable

3.2.3.2 Reasons for Gains:-

There are also several clear/apparent reasons why new aggregate import facilities have been set up in the intervening period. These are simplified as follows:-

- wharves gained as part of new operator's entry/investment into south east markets with foreign aggregate imports
- wharf gained through joint venture/investment arrangements between existing operators
- wharves/rail depot gained through operators strategic needs
- wharf gained through development of previously unimplemented planning permission

3.2.4 Geographical Spread of Aggregate Import Facilities

3.2.4.1 All existing aggregate import facilities are shown on the Location Diagram in Appendix 6. This diagram also provides an indicative size of each facility by means of categorising according to average import volumes.

3.2.4.2 The geographical spread of the existing wharf and rail facilities to a large extent reflect Kent & Medway's own geography, its main population centres and also their strategic position on the Thames Estuary enabling direct links to London by sea/rail. In 1990, the key factors in determining a preferred transport mode by which aggregates are imported into Kent and Medway are that:-

- all wharf locations need access to navigable waters on the North Kent/Medway Council coastlines or on the River Medway

- all rail depots have direct/linked access to the main rail network – which consists of the three main rail routes traversing east–west across Kent & Medway

These key factors have not significantly changed for wharves and rail depots since 1990. Only one notable difference has arisen since then, and this relates to rail depot potential in association with the new CTRL link. This, in theory, could provide an important fourth rail line service across the county – with potential links abroad via the Channel Tunnel. However, it is not clear yet as to whether this high speed line can be realistically linked to aggregate freight movements.

3.2.4.3 It is possible to identify three distinct geographical groupings for the marine wharves and a separate group for the rail depots (sites within each group are also highlighted on Location Diagram). A summary of the groups are as follows:-

Marine Wharves - Three groups consisting of:-

- **Group 1 - Dartford/Gravesend Thameside** – where currently 6 medium to large wharf operations exist (with 2 of these operators sharing jetty facilities at Robins Wharf). Together, they import a variety of hard rock and marine aggregates mainly to serve the local markets by road, with only 2 sites able to provide onward transhipments by river out of Kent into London mainly. None of these sites have direct access to rail.

- **Group 2 - Isle of Grain and Medway –** where currently 5 wharves operate. Two of these wharves (Grain Terminal & Cliffe) are major aggregate handling/production centres (with a current combined throughput of about 3 million tpa), being 2 of the most significant wharf import facilities in the south east. Cliffe imports sea dredged aggregate, whilst Grain imports hard rock from Glensanda. Most of their respective

production is destined for the London/South East markets by transhipments using either the river or by rail (approx. 75% of output from Grain Terminal) or by rail only (approx. 40% of output from Cliffe). Grain Terminal also imports significant quantities of track ballast by rail for recycling and export - also by rail. The remaining 3 wharves are small to large operations, geared to supplying aggregate to their immediate market areas as virtually no transhipment takes place (although two of these sites have the ability to tranship aggregate – one by river and one by rail).

- **Group 3 - East Kent –** where currently 4 small to medium wharves operate providing mainly sea dredged aggregates to local markets by road (although Whitstable is principally hard rock), as transhipment facilities are not a realistic option or even available to them.

Rail Depots

Only one group is identified (**Group 4**) due to the strong west-east linear pattern of the three rail depot locations (Allington, Hothfield and Sevington) through the centre of Kent - reflecting the main rail line route from London/Swanley to Folkestone and then Dover. The site at Conningbrook, which has an unimplemented planning permission for rail aggregate import facilities, is located close to Ashford on a separate line between Ashford and Canterbury.

Two of the rail depots have been in existence for several decades. Both sites currently import hard rock, although Allington has the capability of importing sand and gravel (which it used to do some 25 years ago). However, they differ in the respect that hard rock imports at Hothfield are almost entirely used in the onsite coated roadstone plants whilst Allington supports only one coated roadstone plant with a greater proportion of uncoated roadstone sales compared to Hothfield.

As stated in section 3.2.2 herein, the site at Sevington was established on the back of the Channel Tunnel/CTRL project during the 1990's, where large volumes of building and construction materials were needed to be delivered by rail into a suitable site in east Kent for the duration of those projects. It has been recently reactivated as a rail aggregate import facility, with processed sea dredged aggregates believed to have been transhipped from the North Sea Terminal at Cliffe and hard rock from other land based quarries. A planning application has recently been submitted by Bretts to seek a permanent use of some of the sidings/facilities at this site.

3.3 Comparisons between 1990 Report of Survey & Existing Aggregate Import Volumes

3.3.1 Marine Wharf Volumes

Revised tables on the importation of aggregates in Kent were produced in 1991 (Table 2.3 of Second Addenda to Appendix 1, 1990 KCC Report of Studies). The relevant figures for Kent's aggregates imports now summarised in Table 4 below:-

Table 4 Aggregate Imports to Kent (including Medway) from 1983 – 1989 (figures in million tonnes)

Import Type	1983	1985	1987	1989
Sea Dredged Aggregates	2.1	3.1	3.3	8.6*
Imported Hard Rock***	0.8	1.0	1.7	3.7**
Totals	**3.9**	**4.1**	**5.0**	**12.3**

* Includes 3.9 m. tonnes of sea dredged S & G for Channel Tunnel
** Includes 2.2 m. tonnes from Glensanda – of which 900,000 tonnes were used in the Channel Tunnel
*** It is assumed that these figures do not include rail imports

It should be noted here that the combined figure for aggregate imports by sea and rail in 1989 (excluding imports of 4.8m. tonnes destined for the Channel Tunnel contracts) amounts to 7.5 m. tonnes.

More recent figures for wharf aggregate imports into the south east from 1994 to 2003 were published by SEERAWP in February 2005 (see Appendix 2 for summary of the Aggregates Monitoring Report 2003). This report contained figures for Kent (including Medway) and are shown in Table 5 below:-

Table 5 SEERAWP data on Annual Wharf Aggregate Imports to Kent (including Medway) from 1994 to 2003 (in million tonnes)

Import Type	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Sea Dredged Sand & Gravel	3.51	3.64	3.00	2.42	3.13	3.20	3.52	3.42	3.61	3.48

Hard Rock Imports by sea*	1.58	2.18	1.68	2.03	1.80	2.07	4.33	3.16	3.14	2.97
Annual Totals	**5.09**	**5.82**	**4.68**	**4.45**	**4.93**	**5.27**	**7.85**	**6.58**	**6.75**	**6.45**

* Excludes hard/crushed rock imports by rail

It should also be noted here that the Table 4 total for 1989 (7.5m. tonnes) has only ever been exceeded once since then (i.e. in 2000).

3.3.2 **Rail Depot Volumes**

The 2003 SEERAWP Report did not produce a breakdown by County for rail aggregate imports. Therefore, estimates for the three Kent rail depots in the SEERAWP Report have been provided in Table 8 (see paragraph 3.5.7).

3.4 **Average Aggregate Import Volumes Derived from Questionnaire**

3.4.1 Each operator was asked to state their average outputs at each wharf and rail depot site over the previous five years (including best estimates where no figures were provided by operators). The responses are produced in Table 6 below for the area groupings referred to in section 3.2.4:-

Table 6 Average Annual Wharf & Rail Aggregate Imports by Groupings for previous Five Years (in million tonnes)

Note: Figures here include some estimates where questionnaire response was incomplete/not provided

Import Type	Group 1	Group 2	Group 3	Group 4	Sub Totals
Marine Dredged Sand & Gravel	1.515	1.750	0.165	N/A	3.430
Hard Rock Imports by sea	0.575	1.890	0.225	N/A	2.690
Sub Totals	**2.090**	**3.640**	**0.390**	**N/A**	**6.120**
Rail imports	N/A	N/A*	N/A	0.450**	0.450
Totals	**2.090**	**3.640**	**0.390**	**0.450**	**6.570**

* Figure excludes rail imports of used track ballast for recycling and redistribution by rail

** A relatively low tonnage of sand and gravel 'imports' in this group occur by rail, but are not listed (to prevent double counting) as they are probably transhipments from one of the Kent wharves.

3.4.2 The average total of 6.52 m. tonnes p.a. gained from operators own figures combined with some estimated figures at certain sites correlates well with SEERAWP's last five year average total of 6.58 m. tonnes (taken from 1999 to 2003 in Table 5).

3.5 Current and Future Capacity Potential for Existing Kent Aggregate Import Facilities

3.5.1 In addition to providing aggregate import figures on the questionnaire forms, operators were asked to provide their best estimates for increased aggregate imports based on their probable site capacities (in terms of minor changes to existing facilities/land/planning statue etc.) and then consider their expansion potential (to include additional facilities/land on their existing land and possible extensions to their land). The requested information was not provided by all operators, and therefore several entries have been estimated and others have been rounded in order to keep confidential some of the exact figures provided. The estimated capacities are shown in Table 7:-

Table 7
Estimated Current and Future Aggregate Import Capacities for Existing Wharf and Rail Depots (in million tonnes)

Wharf/Rail Depot	Current Imports (incl. estimates)	Best Years Imports (incl. estimates)	Potential Capacity (no increase in site area)	Potential Capacity (some increase in site area)	Additional capacity between current & best (B-A)
Wharves	**A**	**B**	**C**	**D**	**E**
Johnson's Wharf					
Botany Wharf					
Robin's Wharf (Bretts)					
Robin's Wharf (Foster Yeoman)					
Red Lion Wharf					
Denton Wharf					
Cliffe Marshes					
Grain Terminal					
Frindsbury					
Ridham Dock (West)					
Ridham Dock (East)					
Whitstable Harbour					
Ramsgate Harbour					
Dover Western Docks					
Folkestone Harbour					
Wharf Sub Totals (X)	**6.120**	**9.365**	**14.745**	**20.450**	**3.245 (53.0% above 'A')**
Rail Depots	**A**	**B**	**C**	**D**	**E**
Allington					
Hothfield					
Sevington					
Rail Depot Sub Totals (Y)	**0.450**	**0.800**	**1.500**	**2.000**	**0.350 (77.8% above 'A')**
Totals (X+Y)	**6.570**	**10.165**	**16.245**	**22.450**	**3.595 (54.7% above 'A')**

3.5.2 It should be noted from the above figures that the two major wharf sites (Cliffe & Grain) account for 4.3m, 7.5 m & 11.0 m. tonnes of the totals in columns B, C & D respectively (i.e. nearly 50% of the potential marine/rail depot capacity is allocated at these 2 major sites). They are actually located within the Medway Council area.

3.5.3 The figures provided in columns C & D of Table 7 (which in turn form the figures for Table 8) do assume the following:-

- Ships/barges & trains/wagons/pathways for importing the aggregate would be available and able to turn around the necessary volumes
- long term security in terms of site occupation is secured for those sites which will need to reinvest in improved jetty/wharf and processing plant facilities etc.
- planning permissions (e.g. replacement processing plants, out of hours working, increases in lorry movements, ancillary operations such as bagging/concrete plants) would be forthcoming

3.5.4 The estimates in Table 7 indicate that all wharves and rail depots have been operating at below their respective best year total outputs (by 53.0% for wharves and by 77.8% for depots). The combined 'best year' totals (column B, Table 7) would suggest that existing site facilities would be able to increase imports from 6.57m.tonnes to 10.165m.tonnes – an increase of 3.595m.tonnes (i.e. 54.7%) above the average total imports for the County. This compares with the 20% additional aggregate handling capacity for the SEERAWP 02/02 Survey (see Appendix 1) over and above the year 2000 figures. However, the year 2000 wharf aggregate import figures from SEERRAWP for Kent (reproduced in Table 5 here) amounted to 7.85m.tonnes and this would make their survey capacity estimate of Kent's import facilities to be 9.42m.tonnes (based on the average 20% increase) . This total correlates very well with the estimate capacity in this study under column B sub-total of 9.365m.tonnes for wharves in Table 7.

3.5.5 Most of the 'best year' increase potential is focussed on the two major sites (Cliffe & Grain) with combined sub total figures from 2.75m.tonnes to 4.30m.tonnes (columns A & B, Table 7) – an increase of 1.55m.tonnes (i.e.by 56.4%). Much of the increased aggregate potential is likely to be transhipments by sea/rail to destinations outside of Kent. This reflects the current operations where transhipments by sea/rail are already between 60% & 75% from Cliffe/Grain.

3.5.6 In respect of increasing outputs based on road sales from the existing wharves and depots, none of the operators indicated any real problems with their current access arrangements in terms of physical/safety constraints. Indeed, it was evident from inspections made on the main routes leading up to the sites visited, that many existing sites had benefited from significant road access improvements in the last 15 years. In particular the following improvements are acknowledged:-

- the wharves west of Gravesend had new distributor access roads established as part of the ongoing infrastructure improvements for developments in that area (including Crossways, Blue Water & CTRL)
- the Medway wharves now benefit from the construction of the new Medway Tunnel and the Wainscott By-pass - with further improvements currently underway on the A228 into the Isle of Grain
- East Kent wharves benefit from improvements to Thanet Way and the M20.

3.5.7 For greater clarity on the wharf and rail depot area distribution within Kent, the potential capacity figures provided in Table 7 can be placed into the Groupings shown in Table 8 below:-

Table 8 **Potential Maximum Aggregate Imports Capacity at Existing Wharf and Rail Depot by Groupings (in million tonnes)**

Note: Figures are collated from column C of Table 7

Import Type	Group 1 (wharves)	Group 2 (wharves)	Group 3 (wharves)	Group 4 (rail depots)	Sub - Totals
Marine Dredged Sand & Gravel	3.235	4.100	0.260	N/A	**7.595**
Hard Rock Imports by sea	1.570	5.200	0.380	**N/A**	**7.150**
Sub - Totals	**4.805**	**9.300**	**0.640**	**N/A**	**14.745**
Estimated rail imports	N/A	N/A	N/A	1.500*	**1.500**
Totals	**4.805**	**9.300**	**0.640**	**1.500***	**16.245**
Comparison with Group average totals from Table 6	**2.090**	**3.640**	**0.390**	**0.400***	**6.520**

* Figures are for hard rock imports only (sand & gravel imports are omitted here as they are likely to be transhipments from Cliffe and already accounted for in Group 2 figures)

3.5.8 **Group 1** wharf facilities in Table 8 may have the potential to increase total import capacity on existing landholdings in their group by as much as 130%. Table 7 figures for Group 1 facilities indicate 'best year' imports would be 61.7 % better than Table 6. These wharf facilities are not quite as dependent as those in Group 2 for onward transhipment arrangements, but do have a number of onsite support facilities such as concrete batching, coated roadstone, bagging and mortar plants which manufacture aggregate related products for sale by road. As such, these wharves serve predominantly local markets by road.

Furthermore, as they are in close proximity to each other, it may take a several years to achieve the maximum potential at each site. Much depends on the regional aggregate demand forecasts for the south east and how quickly more local project initiatives arising from Thames Gateway projects in Dartford and Gravesham Boroughs are brought forward over the next few years.

3.5.9 **Group 2** wharf (and rail) facilities in Table 8 may have the potential to increase total import capacity on existing landholdings in their group by as much as 155%. Table 7 figures for Group 2 facilities indicate 'best year' imports would be 52.9% better than Table 6 – nearly half of which centred on Cliffe and Grain.
These 2 sites currently account for nearly 1.5m. tonnes of aggregate transhipments out of the County – such transhipments could increase to approx. 3.2m.tonnes out of the estimated 'best year' total of 4.3m.tonnes for these 2 sites. If so, then the estimated transhipments of 3.2m.tonnes would mean that 31 % (or more) of Kent's 'best year' total aggregate import capacity may eventually be serving markets outside of Kent from just these 2 sites alone.

3.5.10 **Group 3** wharf facilities in Table 8 may have the potential to increase total import capacity on existing landholdings in their group by as much as 64%. Table 7 figures for Group 3 facilities indicate 'best year' imports would be 46% better than Table 6.
The statistics reflect the general nature of physical constraints to expansion on existing landholdings at the sites in this group – which are all sites within port/harbour administered boundaries. The sites are also relatively more remote from major centres of population in Kent, and are likely to remain as aggregate import facilities serving smaller centres of local demand in the foreseeable future.

3.5.11 **Group 4** rail depot facilities in Table 8 may have the potential to increase total import capacity on existing landholdings in their group by as much as 275%. Table 7 figures for Group 4 facilities indicate 'best year' imports would be 77.8% better than Table 6. Two of the three rail depots appear to have significant potential to expand and the other (Hothfield) is likely to be restricted due to potential planning issues.
The recent recommencement of operations at Sevington now includes transhipments of sea dredged aggregate from Cliffe and hard rock from land based quarries. Although current imports here seem to be low key, the operator has applied for permission to increase throughput of aggregate imports, together with increasing other related activities including mineral imports, concrete batching, aggregate processing/recycling and storage of coated roadstone.
Allington rail depot currently imports hard rock aggregate, but does have the ability to accept sand & gravel aggregate – possibly transhipped from Hanson's wharf facilities (e.g. Dagenham).
Much of the potential increased capacity for rail depots is likely to be dependent upon how many train 'pathways' on the rail network, that can be arranged/negotiated with all organisations involved in providing trains/wagons, scheduling of rail freight movements, signalling/track modifications etc.

4 AGGREGATE IMPORT TRENDS AND FORECASTS FOR KENT AND MEDWAY

4.1 Trends 1990 to 2005

4.1.1 Overall Trends

4.1.1.1 The total figure for aggregate imports in 1989 from Table 4 was 7.5 m. tonnes (excluding Channel Tunnel contracts). This net total figure still highlights how rapidly aggregate imports had increased in Kent during the late 1980's from a total of 3.9m.tonnes in 1983.

4.1.1.2 The prospect of huge aggregate demand in the Channel Tunnel construction project was one of the major factors in bringing about significant investment at the Grain Terminal to accept large vessels to discharge huge aggregate cargos over the existing wharf facilities for use in the manufacture of concrete linings for the Channel Tunnel.

4.1.1.3 In addition, forecasts for growth in construction/development were also fuelling further demand for aggregate import facilities by 1989 – particularly, from the supporters of the 'superquarry' concept. However, the following year witnessed the start of a recession and aggregate demand began to plummet.

4.1.1.4 Over the next few years in the early 1990's, the aggregate industry's leading producers began a period of rationalisation of all their operations. Although land based mineral operations may have suffered at that time, only a few Kent wharves were closed, but no rail depots were closed.

4.1.1.5 However, some new Kent wharves were developed during the 1990's in similar areas to those wharves closing down (as shown in Table 3). Northfleet/Gravesend (Group 1) appeared to gain most additional capacity with the establishment in turn of new facilities at Robin's Wharf and Red Lion Wharf, both of which easily exceeded the loss of Imperial Wharf for aggregate imports. Group 2 has now lost 2 wharves (one last year at Rochester) with one new wharf established at Ridham (East). Group 3 has gained 3 and lost 3 wharf facilities.

4.1.1.6 The establishment of Red Lion Wharf by Norwegian based company Stema was probably the first significant self contained wharf facility intended for foreign aggregate imports in Kent. The wharf mainly handles Norwegian hard rock aggregate, but also imports Danish sand & gravel. These imports do have some bearing on the UK balance of aggregate imports/exports, but are of more significance to Kent as they are mostly landed for Kent based markets (see comments in Appendix 3).

4.1.1.7 Rail depots have increased by one during this period – located at Sevington, near Ashford. Although extensively used for a temporary period on CTRL contracts,

Sevington has only very recently been solely used in part for the importation of aggregates.

4.1.1.8 The SEERAWP Report figures in Table 5 indicate that aggregate imports to Kent in 1996/97 were at their lowest during that decade (respectively 4.68 & 4.45 m.tonnes). By 2001, the total aggregate imports had climbed to 6.58m.tonnes (a rise of nearly 50% in 4 years) and were maintained at this level for the next 2 years - at similar proportions for sea dredged & hard rock aggregates.

4.1.1.9 The overall trend therefore on aggregate imports into Kent during the 15 year period from 1990 to 2005 is one which reflects firstly, the aggregates industry consolidation/rationalisation of import facilities in the early 1990's following the rapid rise and fall in aggregate demand during the 1980's, and then secondly, of the aggregate industries recovery later on through the late 1990's and on to 2005.

4.1.2 **Other Trends**

It is possible to point to a number of significant features affecting aggregate imports which created minor trends during this period. These are listed below:-

- Excluding the effects of major contracts (Channel Tunnel/CTRL), aggregate imports by sea/rail declined gradually from 1990 (7.5 m. tonnes) to lows in 1996/97 (approx. 4.5 m. tonnes) and then increased almost to the same levels by 2003 (6.45 m. tonnes). Similar declines and partial recoveries were evident from land based quarries

- Last 3 years of available aggregate import volumes have been at the same level – no significant increases are likely in the near future

- In the years following commencement of Glensanda Quarry, industry aspirations for further additions to the 'superquarry' concept had virtually withered away by the late 1990's. This seemed to encourage existing main producers to invest more in dredging licences, and for other producers to increase aggregate supplies from abroad

- The ratio between imports of sea dredged and hard rock aggregates have decreased from 5:2 in 1990, to nearly 1:1 in 2003

- Significant increases in aggregate imports from abroad (mainly Norway, France and Denmark)

- Little change to wharf facility numbers

- One additional rail depot developed

- Little evidence overall of any major expansion proposals/site capacity at existing sites

- Commencement of first significant transhipments of aggregate imports by non road means from wharf to rail depot within County boundaries (i.e. from Cliffe to Sevington)

- Many existing Wharf & Rail Depot facilities have been running at below full capacity for many years

- The combined 'best' capacity of the Wharves & Rail Depots existing facilities could be up to 54.7 % more than recent years average aggregate import volumes

- The combined potential capacity of the Wharves & Rail Depots could be 147.3 % more with reinvestment on existing site areas – particularly in bigger/more efficient processing plant and introduction of new/better onward transhipment facilities.

4.2 General Forecasts for Aggregate Imports

4.2.1 The South East Regional Assembly's forecasts on aggregate imports into the south east for the period between 2001& 2016 are expected to be as follows:-

- Marine S & G – 120 m. tonnes (annually @ 7.5 m. tonnes p.a.)
- Hard Rock – 85 m. tonnes (annually @ 5.3 m. tonnes p.a.)

The combined total of aggregate import expectations amount to 12.8m.tonnes per annum.

4.2.2 Therefore, the National/Regional forecasts of growth in aggregate consumption are now much more modest for the immediate few years ahead – with no return expected to the exponential growth predicted and achieved in the late 1980's.

4.2.3 The SEERAWP reported returns for 2003 indicated the following make up of aggregate imports into the south east:-

- Marine S & G – 6.52m.tonnes
- Hard rock by sea – 3.80m.tonnes
- Hard rock by rail – 4.10m.tonnes

The combined total of 14.42m.tonnes here is in excess (by 1.62 m.tonnes p.a.) of the Regional Assembly's total forecasts – principally due to the increased hard rock imports of 7.9m.tonnes compared to the Regional Assembly's expectations of only 5.3m.tonnes p.a.

4.2.4 The SEERAWP returns also identify Kent and Medway's domination of aggregate import handling volumes (see Appendix 2 and Table 5 above) in relation to other facilities in the south east. These are made up as follows:-

- Marine S & G – 3.48m.tonnes (note: 53.3% of south east total)
- Hard rock by sea – 2.97m.tonnes (note: 78.2% of south east total)
- Hard rock by rail – 0.40m.tonnes (estimated in this study at 10% of south east total)

The combined total estimated here is 6.85m.tonnes of imported aggregates by sea/rail into Kent & Medway in 2003. This total represents 47.5% of the actual 2003 total south east imports in paragraph 4.2.3, and 53.5% of the Regional Assembly's total annual forecasts.

4.3 Key Factors likely to affect Aggregate Imports Forecasts and their impacts on Kent

There are a number of factors which are likely to influence forecasts on future aggregate import volumes and Kent's ability to cope with future demand where needed over the next 10-15 years. Such factors include:-

- Kent's geographical position to provide aggregates by onward transhipments (by sea and rail) to London and other areas
- Kent's ability to tranship imported aggregates within Kent boundaries
- Depletion rate of Kent's existing land won aggregate reserves
- Ability of Kent's neighbouring authorities to provide their own mineral resources or aggregate import facilities
- Continued expansion of foreign aggregate imports by sea
- Arrival of foreign aggregate by rail via Channel Tunnel/CTRL
- Delays in grant of necessary Crown Licences for sea dredged sand and gravel extraction
- Potential impact of possible closures/translocation of one or more of the existing large/major import facilities
- Current priority for improvements to rail freight pathways do not materialise
- Priority being given in local development plans or by landowners to alternative developments which will exclude aggregate import facilities.

5 CLASSIFICATION OF EXISTING AGGREGATE IMPORT FACILITIES IN KENT & MEDWAY

5.1 Each existing aggregate import facility in this study has been classified into various categories according to type & volume of aggregates handled (from column A, Table 7). The production ranges selected for each category also reflect the existing site area, expansion possibilities on site and likely ability to increase onward aggregate transhipment facilities. As rail depot facilities do not achieve the full class ranges of wharf facilities, they have been set different ranges for the medium/large classes. The classifications are outlined in Table 9 below and are also identified on the Location Diagram:-

Table 9 Existing Kent & Medway Aggregate Import Facility Classifications

Wharves		Rail Depots		Sites
Class	**Range**	**Class**	**Range**	
1	Small - up to 0.1 m.tpa			Ramsgate, Folkestone
2	Medium, 0.1 – 0.35 m.tpa			Johnson's Wharf, Robins Wharf (West), Robins Wharf (East), Ridham Dock (West), Ridham Dock (East), Whitstable, Dover Western Docks
3	Large, 0.35 – 0.75 m. tpa			Botany Wharf, Red Lion Wharf, Denton Wharf, Frindsbury Wharf
4	Major – 0.75 m. tpa or more			Cliffe, Grain Terminal
		1	Small – up to 0.1 m. tpa	Sevington
		2	Medium, 0.1 – 0.25 m. tpa	Hothfield
		3	Large – 0.25 m. tpa or more	Allington

5.2 Table 9 identifies 'medium' as the most common classification of wharf facility – having 7 wharves (3 in Group 1, 2 in Group 2 and 2 in Group 3).

5.3 The next most common classification is 'large' – having 4 wharves (3 in Group 1 and 1 in Group 2). The remaining sites are then 2 'small' wharves (in Group 3) and the 2 'major' wharves (in Group 2).

5.4 The rail depots are evenly split with 1 in each of the small, medium and large classifications.

5.5 Some changes to Table 9 wharf classifications would occur if the 'best year' imports from Column B of Table 7 were used instead. Of particular note would be the increase from 2 to 5 major wharves (to include Botany, Denton & Frindsbury Wharves), and an increase in large wharves from 4 to 6 (to include Johnson's Wharf and Robins Wharf (West)) – 4 of these wharves being in Group 1.The remaining wharf sites would stay in their respective classifications in Table 9.

5.6 Future potential rail depot changes to Table 9 would probably consist of both Hothfield and Sevington both becoming large depots. However, Hothfield's expansion to a large depot is less certain as this will probably rely on coated roadstone sales increasing significantly. Sevington's potential expansion is more likely in that it is based on the operators current planning application which, if granted, is likely to be brought forward gradually over a period of years to help replace the operator's own local land won resources/activities as they become depleted.

5.7 Further changes to the classifications would take place if individual sites were ever to achieve the additional increases in capacities identified in columns C & D of Table 7. However, it is unlikely that all of the sites will realise their full potential together. Significant increases in demand identified in parts of Kent may trigger operator's confidence to invest large sums to capture such demand (e.g. in improvements to ship to shore discharging facilities/new transhipment facilities/replacement processing plants etc.). Other sites may fail to secure the necessary additional land or fail to obtain the planning permissions needed to meet identified increases in demand.

6. CONSTRAINTS ON THE EXPANSON OF EXISTING AGGREGATE IMPORT FACILITIES IN KENT AND MEDWAY

6.1 As part of the questionnaire survey, operators were asked to provide the most likely factors to influence the success or otherwise of increasing aggregate throughputs at their sites – discounting competition/market forces. A number of relevant factors resulted and some are considered to be potential constraints on the expansion of sites. Some further constraints were highlighted by operational managers during the site visits. Specific constraints cannot be reproduced here for confidentiality reasons, but general constraints are set out below:-

- lack of space - site too small
- inability to acquire more/adjoining land due to landlords redevelopment aspirations
- no long term security for occupation onsite
- no opportunity to link into rail network
- no opportunity to establish wharf/jetty loading facilities
- site not likely to work 24 hours/day

- lack of ships/barges/trains/wagons/train pathways
- proximity of adjoining developments
- shared access with other wharf/depot facilities
- proximity of high value nature conservation/landscape interests

6.2 In terms of total import potential to Kent, the most likely factor from the above list which could significantly increase aggregate volumes handled at existing wharves, lies with their ability to carry out onward transhipments of processed aggregate. The 2 existing major sites already have rail connections and one of these is also able to load ships for onward transhipments upriver – the other wharf has plans to introduce loading facilities for onward transhipments by sea/river. Two other wharves also carry out onward transhipments by sea/river.

6.3 It appears unlikely that any more of the existing wharves will be able to connect to the rail network for onward transhipments of imported aggregate in the foreseeable future. However, onward transhipment of aggregates by sea/river may be possible at one or two sites not already practising this activity (e.g. Denton and Frindsbury Wharves), provided at least one of the constraints identified above can be overcome.

6.4 Some wharf sites in Kent (i.e. 2 at Ridham and the other 4 in Group 3) are operating under the control/guidelines imposed by either a City Council or Port/Harbour Authority. Separate rules/procedures may have to be followed for aggregate operations (eg limited berthing times) in addition to normal planning and other site regulations. Major expansion may not be possible at these sites due to effects on other port users.

7 POTENTIAL SITE SAFEGUARDING FOR EXISTING AGGREGATE IMPORT FACILITIES AND POSSIBLE FUTURE SAFEGUARDING MEASURES

7.1 Safeguarding of Existing Aggregate Import Facilities

7.1.1 The previous sections of this study have provided a good understanding of Kent's historic and current role in meeting it's own needs and much of it's neighbours (i.e. London/Medway), for imported aggregates through existing wharves and rail depots.

7.1.2 The combination of Kent's existing aggregate wharves and rail depots have changed relatively little in overall terms since 1990. Many of the same sites were operational at that time and were also operating at higher throughputs than those achieved in recent years. Spare capacity has therefore been identified at all of the existing sites

7.1.3 The fact that spare capacity is demonstrated at all of the existing sites, is a positive indicator to KCC to favour the possible future safeguarding of all these sites on their existing land/operational areas, with the knowledge that they already meet much of the County's possible expansion in aggregate import requirements. Plans of all the existing site operational areas are shown in Appendix 7.

7.1.4 The survey results indicated operators concerns about general constraints that may affect existing sites and their expansion potential (see section 6). The previous 15 years have seen a disappearance of working wharves and their partial replacement with new facilities at different locations. The creation of new replacement wharves is now considered more difficult than before as potential aggregate wharf sites have been lost to alternative developments in the intervening years. It is therefore important for KCC to consider possible safeguarding measures on adjoining land to existing sites to ensure that they remain unaffected in the continuation of their operations and for their future expansion potential.

7.1.5 Adjoining land may or may not be under the control of the operators, but if this land is vacant or underutilised, KCC are recommended to consider safeguarding measures being attached to the land to ensure the aggregate import facility is not directly affected by any subsequent uses. This may be classed as the formation a buffer zone in planning terms (see later in section 7.3.9).

7.2 Safeguarding of Potential New Aggregate Import Facilities

7.2.1 The existing Kent Minerals Local Plan for Construction Aggregates (adopted December 1993) identified a number of potential aggregate import facilities under Policy CA4 – see Appendix 5. Some of these sites have already come forward in the intervening period, others have not come forward for various reasons.

7.2.2 Although this study has identified potential additional capacity for aggregate imports at existing wharves & rail depots, it is for the reasons identified in paragraph 7.1.4 that KCC are advised not to ignore the potential of other sites. It is also possible, that such new sites with more modern facilities (e.g. with covered unloading/loading and processing facilities) could provide overall environmental benefits than by concentrating expansion at existing sites with little or no chance of providing such benefits.

7.2.3 The following Table 10 represents an updated version of the existing list of potential new sites under Policy CA4. Some of these sites have been entered from consultation with operators during this study, others from discussions with landowners and some carried forward from the previous list. The entries have some qualified justification written in support:-

Table 10 Potential New Aggregate Import Facilities in Kent and Medway

Potential New Wharf	Justification
Littlebrook Power Station	The existing MLP site allocation at Stone Marshes is almost entirely redeveloped as a business park, with very little vacant land remaining, which is now most unlkikely to be used for aggregate imports. The Littlebrook power station complex has some vacant land and 2 wharves – one very underutilised. Further land may become available if adjoining uses cease. Subject to gaining appropriate road access (there is no rail access), a new 'large' wharf facility could be established somewhere near to the wharf – even on a temporary basis to assist major developments scheduled for the adjoining areas.
Northfleet (no.42) Wharf	The imminent closure of the cement works is likely to signal the start of a major redevelopment scheme for the whole of old cement works. The site owners (Lafarge) have indicated there possible need for an aggregate import facility based at this wharf, having direct access to the rail network (and possibly CTRL). The wharf can also accept vessels with up to 40,000 tonne cargos. Therefore, it has the potential to be a 'major' site.
Kingsnorth Power Station	This site has a deep water jetty facility which possibly could be adapted to handle aggregate cargo discharges and linked to some of the vacant areas beside the power station. A possible connection could also be made to the nearby rail line if land ownership is continuous from jetty to rail line. If this is all possible, the site has the potential to be a 'major' site.
Halling Works	A planning permission has recently been granted by Medway Council here for the importation and processing of aggregates – including a concrete batching plant. This 'medium' site is seen as a part replacement to Halls Rochester Wharf – which ceased operations last year.
Sheerness/Queenborough	Much of the land previously identified under Policy CA4 has been redeveloped for other port related uses (much of this being open storage of imported cars). The site owners are likely to continue allowing their land being used this way for commercial reasons. However, the development could potentially be reversed if aggregate imports should become more

	commercially attractive. The previous designation should remain and possibly include some additional land to the south and adjacent to the old steel works to establish a rail connection (which would combine to make it a potential 'major' site).
Richborough	Although this is a 'small' site which can only be served by small aggregate vessels/barges, it remains one of the very few potential sites in east Kent that can be developed for aggregate import facilities and maintain Richborough as a Kent port - provided concerns about effects on local nature conservation interests can be overcome. The site could therefore be a small, but important addition to the overall aggregate import supply provision in Kent.
Potential Rail Depots	**Justification**
East Peckham	This site has an established rail siding, for the importation of waste materials to aid restoration of the adjoining former mineral extraction areas. It has a good access and is in a very good strategic location. It has therefore been brought forward as a potential new 'large' rail depot for aggregate handling.
Holborough	This site is identified as an aggregate rail depot. It is in a good location with good access onto the A228. It has the potential of being a 'medium' depot site. However, it is in the control of Lafarge and may not be brought forward if their nearby Northfleet (No.42) Wharf proposals come forward in preference to Holborough

7.3 Future Safeguarding Measures

7.3.1 As stated in the introduction, a consultation exercise is already underway on proposed changes to the provision of minerals under Regional Planning Guidance for the South East (RPG 9). Five draft new policies have been prepared and Policy M5 directly relates to aggregate imports. It states that:-

"Mineral planning authorities should assess the need for wharf and rail facilities for the handling and distribution of imported minerals and processed materials, and identify strategic sites for safeguarding in their minerals development frameworks. These strategic facilities should be safeguarded from other inappropriate development in local development documents"

7.3.2 Specific guidance on how the Minerals Planning Authority is to achieve the necessary safeguarding from other inappropriate development in local

development documents is unfortunately absent from the consultation exercise. The proposals only provide a brief mention that Mineral, Waste and Local Planning Authorities need to co-operate in the process of safeguarding sites.

7.3.3 However, quite separate from proposed changes to the mineral policies, RPG 9 does require planning authorities to work with Regional Planning Bodies, rail authorities, Highway Agency, Port Authorities and other partners to identify a strategic freight network which supports the overall freight strategy and promotes the efficient and effective use of road, rail, inland waterways and coastal shipping networks. From this work, a criteria-based assessment framework can be developed which will allow individual authorities to respond to proposals for inter-modal interchange facilities on a consistent basis.

7.3.4 Planning authorities are then able to prepare development and/or local transport plans which should include proposals to safeguard sites for rail/wharves/port facilities, and permit development on rail and water freight operations (including associated facilities for modal transfer where these would assist in the development of the strategic freight network. On this basis, Kent's (and Medway) existing and future aggregate wharves may take on a more strategic role in terms of being recognised as onward transhipment (or inter-modal) centres in addition to supplying local markets.

7.3.5 In order to establish initial beneficial measures for safeguarding of aggregate import wharves, KCC could adapt some of the safeguarding policies already adopted for wharves on the River Thames as part of the London Plan Implementation Report. This report was really driven by an identified need to protect all types of 'London' wharves (not just aggregate wharves) from irreversible development pressures, as port related site uses are dependent upon the River Thames being an important artery for freight movements and that port activities are also recognised as being necessary for the continued economic well being of the towns/communities they serve. An extract of the main policies in this plan concerning the safeguarding of wharves is shown in Appendix 4.

7.3.6 The London Plan policies relate to a number of issues or key factors to help protect their Safeguarded Wharves. KCC can use these factors to assist in the development of its own policies for Safeguarding Wharves in co-operation with the relevant local planning authorities which contain such aggregate import facilities. Of particular note is Policy 4C.15 which identifies 3 main factors as follows:-

1. Redevelopment of a Safeguarded Wharf should not proceed unless the developer can prove that port related activities are not viable

2. Owners/operators of Safeguarded Wharves which become unviable, should be encouraged to promote permanent alternatives uses which

are water based and not irreversible, or temporary uses which can take advantage of the existing port related facilities

3. Development proposals on adjacent land (i.e. 'buffer zones') or opposite a safeguarded wharf site should be designed to minimise the potential for conflicts and disturbance, and not compromise the ongoing port related activities at the Safeguarded Wharf

7.3.7 Assessing the Viability of a Safeguarded Wharf

Possible criteria for assessing the viability of wharves are set out in paragraph 4.105 of the London Plan. A summary of the main criteria applicable to Kent is set out below (see Appendix 4, paragraph 2.26 for full description):-

The redevelopment of Safeguarded Wharves should only be accepted if the wharf is no longer viable or capable of being made viable for cargo handling uses. Only exceptional circumstances to this general rule will be permitted. The viability of the wharf will be dependant upon:-

- the wharf's size, shape, orientation, navigational access, rail access, planning history, environmental impact and surrounding land use context
- the geographical location of the wharf, in terms of proximity and connections to existing and potential market areas
- the existing and potential contribution that the wharf can make towards reducing road-based freight movements
- existing and potential relationships between the wharf and other cargo-handling sites or land uses
- the location and availability of capacity at comparable alternative wharves nearby and the potential loss/impact for onward transhipments to London and elsewhere
- in the case of non-operational sites, the likely timescale within which a viable cargo-handling operation can be attracted to the site, having regard to the short-term land-use policy, and long-term trade forecasts.

7.3.8 Preferred Redevelopment/Alternative Use Options for Unviable Wharves

Possible criteria for ensuring that developers of a safeguarded wharf try their best to ensure that redevelopment proposals are not completely irreversible in order to enable a later opportunity to return to port related activities are as follows:-

- For permanent alternative uses of the safeguarded wharf, the preferred redevelopments will incorporate water-based passenger transport, leisure and recreation facilities and water transport support facilities. The last preference will be developments which do not need a waterside location.

- For temporary alternative uses of the safeguarded wharf, these should be permitted if the operator/owner can ensure that investment in the wharf is maintained and image problems are minimised for the wider area. Temporary uses must maintain the existing cargo-handling infrastructure to a specified standard, be limited by a temporary permission with a specific end date and priority should be given to uses which require a waterside location.

7.3.9 Creation of Wharf Buffer Zones and Compulsory Design Features for new nearby developments.

Wharves are increasingly surrounded by different land uses that do not have an industrial or freight handling purpose. Several Kent wharves are located in sea side towns/resorts and are already conspicuous in the landscape. The challenge for both the wharf operators and planners is to minimise conflict between the new and the old land uses. This must be met through modifications and safeguards built into new and established developments on land in close proximity to the safeguarded wharves.

Examples of the measures wharf operators and planners can deploy:-

- Wharf operators can use latest available technology, equipment, environmental and business practices to minimise potential impacts on adjoining commercial/residential developments

- New development proposals on adjoining wharf areas should incorporate designs which utilise the layout, use and environmental credentials of buildings to ensure no or minimal potential conflicts. An example of this could be that the design should not display any opening windows facing the wharf.

- Planners (KCC/Local Authorities) should ensure that surveys of existing highway access facilities to operating wharves which already exhibit regular usage by commercial vehicles, are not simply based on existing traffic survey information when considering proposals for development of neighbouring sites. Planners would need to consult wharf operators to establish whether greater historic usage had occurred on access routes to their wharf locations. Such information would provide clearer knowledge on potential impacts of on/by commercial traffic to and from the wharves and upon the proposed neighbouring developments.

7.3.10 Safeguarding of Rail Depots

The potential safeguarding of aggregate rail depot sites would need to follow a similar process described in the preceding sections. However, due to the fewer number of rail depots, their smaller size and that their sites are generally less attractive for redevelopment proposals, it is expected that rail depot safeguarding will generally be less sensitive to local communities/businesses/developers than

those for wharves.

7.3.11 Consideration needed for Integration of Transport Modes

Finally, KCC may wish to consider (as London did) it's position in respect of promoting the sustainable development of a full range of road, rail and water-borne freight facilities in the County (& Medway), and seek to improve integration between these modes, including the major rail interchanges and the centres they serve. The development of a preferred rail freight operational/transit system for Kent based on the Safeguarded Wharves/Rail Depots could be included in this process.

8 SUMMARY & RECOMMENDATIONS

8.1 Following recent planning guidance KCC instructed consultants to carry out a study of aggregate import facilities in Kent & Medway to establish latest features and trends, and then advise on what measures could be considered to maintain or change the current position for the sake of safeguarding these facilities for the benefit and prosperity of future generations.

8.2 This study has therefore reviewed the existing aggregate import scenario in Kent & Medway in terms of sites, volumes, transport modes, planning/environmental constraints etc. and identified trends since the last survey in 1990. Further evaluations on the main sensitivities which are likely to affect future operations have also been made.

8.3 The overall picture for Kent & Medway combined is very good in that there have been no overall loss in number of aggregate import facilities and consequently no reduction in capacity. There is also a good geographical spread of the facilities to meet most of the main market areas they are intended to serve and many existing facilities have benefited from some improvements to their sites in terms of accessibility in the intervening years.

8.4 Existing aggregate import facilities are actually operating at well below their previous best years throughputs. They also appear to have reasonably good expansion potential on existing sites and/or onto adjoining land at certain locations – particularly where improved transhipment facilities are possible.

8.5 Kent & Medway play a strategic role in landing/processing aggregate imported by sea for onward transhipment by sea/rail to London and other south east markets. This is due mainly to the fact that larger aggregate vessels can be discharged in the deeper water berthing arrangements at Kent & Medway wharves which are also then able to tranship the aggregate in smaller quantities by sea/rail.

8.6 Kent & Medway therefore need to consider whether their strategic role should continue at current levels or (more likely) to accept that further major sites may need to be developed to meet the growing needs of London and the rest of the south east for imported aggregates as and when other resources to those markets gradually become exhausted. This situation could be exacerbated if demand grows at a time when existing sites are lost for any reason beyond the operators control (in particular, any loss involving the large/major sites).

8.7 **Therefore, in the first instance, it is recommended that KCC should seek to impose suitable safeguarding measures at all existing wharves & rail depots along the guidelines suggested in this study. Medway Council may also wish to consider this action.**

8.8 Furthermore, it is now evident that Kent & Medway have fewer additional sites with aggregate import potential than identified in 1990. The remaining potential sites and other new sites identified herein (shown in Table 10) should be considered for possible safeguarding as there is still a risk that existing sites could become unviable or are 'lost' for other reasons identified in this study.

8.9 **Therefore, in the second instance, it is recommended that KCC should consider imposing suitable safeguarding measures on all potential wharves and rail depots identified in Table 10 (and other possible sites which the industry may wish to promote) along the guidelines suggested in this study. Medway Council may also wish to consider this action.**

8.10 Possible safeguarding measures can be based on the format described in section 7 of this study, but by adopting an initial public consultation exercise KCC could possibly obtain a more varied approach to safeguarding measures in the specific areas identified herein.

8.11 **Therefore, in the third instance, it is recommended that KCC should proceed with a public consultation to establish overall views on future safeguarding measures to supplement those based on the initial measures outlined in this study.**

APPENDICES

Appendices 1-4

Recent Reports Concerning Aggregate Imports into Kent & the South East

As stated in the introduction to this study, a number of reports have been completed in recent years which either directly or indirectly refer to aggregate imports into Kent & Medway. For the purposes of this study, Land & Mineral Management Ltd. have summarised the most applicable sections of these reports as they relate to Kent & Medway and are shown in chronological order in Appendices 1-4 herein.

1 SEERAWP 02/02 – Survey of Marine Wharves & Rail Depots in the South East – their capacity for use by the Aggregates Industry
2 SEERA – Aggregates Monitoring Report 2003
3 BGS (Commissioned Report CR/03/041/N) – The Role of Imports to the UK Aggregates Supply
4 London Plan Implementation Report (LPIR) – Safeguarded Wharves on the River Thames

Other Appendices

5 1993 Kent Minerals Local Plan (Construction Aggregates) - Aggregate Import Policies
6 Location Diagram for Wharves & Depots
7 Site Plans for Wharves & Depots

Appendix 1

Summary of South East England Regional Aggregates Working Party (SEERAWP 02/02) – Survey of Marine Wharves and Rail Depots in the South East Region – their capacity for use by the Aggregates Industry (published December 2002)

Appendix 1 – Summary of South East England Regional Aggregates Working Party (SEERAWP 02/02) – Survey of Marine Wharves and Rail Depots in the South East Region – their capacity for use by the Aggregates Industry (published December 2002)

This survey was conducted in 2001/02 and in preparation for the review of the impending review of MPG6 (Minerals Planning Guidance: Guidelines for Aggregates Provision in England, April 1994) and the South East region's own aggregate needs in the medium/long term. The region consists of seven counties and twelve unitary authorities.

The purpose of the survey was to provide up to date regional information on wharves and rail depots, their capacities and the difficulties they are facing for the future supply balance to be taken into account between land won minerals and imports by rail or sea.

The data obtained updated a previous survey in 1991 covering a larger south east area with similar objectives (Note: which is not included here though).

The SEERAWP study report does identify a number of important facts, issues and expansion constraints for the future on the South East Regional wharf and rail import facilities. Although the Kent and Medway area is only part of the overall area covered by the SEERAWP study, the latter does have some important facts/issues which will be equally applicable or of relevance to this new Kent study.

The main items from the SEERAWP Survey affecting Kent (as viewed by LMML) are summarised below :-

Aggregate Wharves (42 in region)

- Wharf Areas – the smaller wharves appear to be outside Kent (on the south coast). The 2 largest are over 40 acres in size and reflect their combined wharf and rail usage with additional facilities for the use of imported aggregates (probably Grain Terminal and Cliffe Marshes)
- Equipment/Plant – most responses refer to self-discharging dredgers being used - with processing carried out on the wharf – probably at the higher outputs of 250-400 tonne per hour or more at Kent and Medway wharves.
- Water Depth – only 6 wharves were identified with more than a 10 metre draught at high water.
- Vessel Size – 20% of wharves could accept vessels up to 7000 tonne capacity (Note: these are probably all in Kent and Medway) and one only able to accept the largest vessel of 49,000 tonnes (probably Grain Terminal).
- Aggregate landed and transhipped by sea – being 5% from one wharf used (probably Grain Terminal).

- Aggregate landed and transhipped by rail – only 3 wharves are served by rail with just 2 of these using rail for exports (probably Grain Terminal and Cliffe Marshes), and one of these importing secondary/recycling aggregate by rail (probably Grain Terminal). The figures stated for onward transhipment by rail from these two wharves were 0.5 million tonnes and represented 7% of the total volumes handled at wharves.
- Pressure from redevelopment or adjoining land development – operators of wharves which are occupied but not owned by the operator clearly have less long term security. This becomes more apparent when the value of redevelopment becomes more valuable to the landlord or if the local authority wish to re-designate the planning status of the general area in which the wharf is located. One site had been served with a CPO by a local authority (Note: probably RMC at Rochester, by Medway Council), and four other sites were under threat from redevelopment at this time
- Local authority restrictions – One wharf had a temporary permission for use of their wharf (not thought to be in Kent). Four wharves experienced weekend working restrictions (at least one in Kent) and two more have other voluntary planning restrictions
- Wharf capacity – the survey returns indicated overall aggregate handling capacity for all wharves was 20% more than the volume of material handled in 2000. Four new wharves were established since 1991 (probably all in Kent) and one more planning permission granted – the combined total capacity of these 5 wharves would produce another 1.3 million tonnes each year.

Rail Depots (24 in region)

- Depot areas – 60% of these were 5 acres or less, 25% less than 2 acres and 25% more than 10 acres in extent (possibly 2 in Kent)
- Site ownership – few operators own their sites – most being owned by Railtrack and leased to EWSR (English Welsh & Scottish Railways).
- Equipment/plant – 40% of sites have bottom discharge systems and small sites tended to rely on hydraulic excavators or grabs 30% of sites have asphalt plants
- Train load capacity – 60% of sites handle trains with payloads of 1400-1900 tonnes net, 25% at 635 tonnes net, whilst only one site handles trains of 2900 tonnes net
- Access – the availability of train paths was referred to as a problem at a third of the returns. Road access was considered a constraint at 20% of returns.
- Local authority restrictions – 40% of depots refer to constraints on hours of operation – mainly at weekends. This was becoming a problem to operators as they were increasingly being asked to provide out of hours/night time contracts.

- Present capacity – the returns indicated that only 30% of depot capacity is being used. The two railheads at the wharves (both in Medway) have a combined capacity of 4 million tonnes, but use only 20% of this total.
- Capacity increase since 1991 – a permanent increase of 250,000 tonnes was made at one site (possibly in Kent)
- Possible future capacity increases – 1 depot planned a 200,000 tonne expansion by 2006. Another operator had a combined potential expansion by 0.5 million tonnes at two sites but no plans to do so. An increase of over 700,000 tonnes was due to be made in 2001 at another site, but for the duration of one contract. Two permissions could be implemented and the outcome of an appeal was awaited on another site.

Appendix 2

Summary of South East England Regional Assembly – Aggregates Monitoring Report 2003.

Appendix 2 – Summary of South East England Regional Assembly – Aggregates Monitoring Report 2003

This is the latest Aggregate Monitoring Report for the South East Region. It has been prepared from return forms (which contain annual sales/production figures on various aggregate etc.) made to Mineral Planning Authorities by operators of quarries, wharves and rail depots. This document therefore has direct relevance to this new study where the information can be attributed to Kent.

The report presents an opening summary of their findings, from which the main points (in the opinion of LMML) are identified for background use in this Kent study as follows:-

Landings of Marine-dredged sand and gravel:-

- The Crown Estate figures of 6.5mt show a similar level to landings in 2001 and 2002. The Aggregate Monitoring survey of landings recorded a slightly higher figure of 6.6mt.
- The contribution of marine dredged aggregate is maintained at over 35% of the South East primary aggregate supply.

Landings of Sea-borne crushed rock:-

- Landings of crushed rock at 3.8mt are some 250,000 tonnes less than last year.
- Over 75% of crushed rock continues to be landed at wharves in Kent and Medway.

Rail Aggregates Depots:-

- Sales were over 4mt from 15 active depots, of which 90%, some 3.7mt, was crushed rock imports.

Other notable information in the Aggregate Monitoring Report:-

There were 37 wharves in the region handling aggregates in 2003. Marine dredged sand and gravel was handled at 23 wharves, 14 handled crushed rock, and both aggregates were landed at 9 wharves. Four wharves handled no aggregates in 2003, but were still capable of being operational, or had not yet become operational.

Wharf Operating Statistics (sea-dredged sand and gravels):-

- Crown Estate annual data (in Table 8) indicate landings of marine dredged sand and gravels between 1994 and 2003 to Kent and Medway combined, were relatively stable/consistent i.e. they were mainly between 3 and 3.5 million tonnes. Only one year was significantly different (being 1997 at 2.416 million tonnes).
- Nearly all of this aggregate was sold as construction sharp sand and gravel.
- 10% (670,000 tonnes) of the landing figures were in stockpiles at the wharves.

- The vast majority of landings were sea dredged aggregates sourced from either the North Sea or the English Channel.
- Only 200,000 tonnes of sand and gravel landed at the wharves originated from land won sources.

Wharf Operating Statistics (sea-borne crushed rock):-

- SEERAWP/AM2003 survey data indicate landings of crushed rock between 1994 and 2003 to Kent and Medway combined, were not stable as landings over doubled in 2000 (to 4.326 million tonnes) from the previous year, and have since dropped back to 2.973 million tonnes in 2003. However, the overall trend is still upwards as landings in 1994 were only 1.583 million tonnes.
- Kent and Medway imported crushed rock from Scotland, Norway, France and Ireland.
- Nearly 90% of all the regions crushed rock imports were sold for roadstone, railway ballast, concrete aggregate, armourstone, other screened and graded aggregate, construction fill (500,000 tonnes) with some 100,000 tonnes held in stockpiles on site.

Rail Depot Operating Statistics:-

- Twelve of the 17 active rail depots import crushed rock.
- Crushed rock sales from rail depots in the region were 3.7 million tonnes in 2003. Some 80% of sales (2.9mt) were for roadstone, railway ballast, concrete aggregate, armourstone, other screened and graded aggregate, construction fill and very little remained in stockpiles.
- Sand and gravel was handled at 5 of the rail depots.
- Sales in 2003 were about 300,000 tonnes – almost all sharp sand and gravel. There were 200,000 tonnes of stockpiles at the depots at the end of 2003.

Secondary/Recycling Aggregate Activities at Wharves and Rail Depots:-

- The AM2003 survey returns show that 9 wharves in the region were recycling aggregates. Eight of these were recycling industrial and mineral waste, with 4 exclusive of construction and demolition waste.
- Recycling activities were also taking place at three of the region's rail depots and probably all construction and demolition wastes. (note the author expressed some caution about the accuracy of information received on recycling activities).
- No statistics were given for secondary aggregate handling at wharves or rail depots.

Appendix 3

Summary of British Geological Survey (Commissioned Report CR/05/041N) – The Role of Imports to UK Aggregates Supply

Appendix 3 – Summary of British Geological Survey (Commissioned Report CR/05/041N) – The Role of Imports to UK Aggregates Supply

This report was produced by the British Geological Survey for the Office of the Deputy Prime Minister (Minerals and Waste Planning Division). It forms one of a series of reports, leaflets and mineral planning factsheets prepared under the ODPM/BGS Joint Minerals Programme that seeks to present factual and authoritative data on the extent, availability, production, trade and use of minerals that are of economic importance to the UK. The report was prepared on the basis that imported aggregate figures were based solely on those aggregates extracted on foreign soil and transhipped to the UK (i.e. sea dredged materials extracted from British waters and aggregate from Scottish quarries are not considered 'imports').

The report presents an opening summary of their findings, from which the main points for background use in this Kent study are as follows:-

- Annual consumption of primary or natural aggregates in Great Britain is about 204 million tonnes (made up of 34% land won sand and gravel, 6% marine-dredged sand and gravel and 60% being crushed rock from various sources).
- The UK is a net exporter of primary aggregates (due mainly to landings of marine sand and gravel in Europe of 6.1 million tonnes in 2003 and exports of Glensanda crushed rock/armourstone amounting to an estimated 3.2 mt, against apparent imports of similar materials estimated at 2.6 mt in 2003 – mainly from Norway).
- Imports were currently estimated to be only 1% of the total aggregate demand in Great Britain.
- Preliminary HM Customs & Excise statistics for 2004 indicate that UK imports of aggregates have increased to 3.1 mt and total exports have increased to 12.2 mt, of which 4.4 mt was crushed rock.

The report excludes much information about sea-dredged aggregates, but does contain other information of relevance to the Kent study as follows:-

Foreign Aggregate Imports to Kent and Medway:-

- A breakdown analysis of the 2004 figures (in Table 2 of the report), identified Norway as the principle foreign source of aggregate supplies into the UK – Norway being credited with a total of 1.65 mt (i.e. 53 %) out of the total 3.1 mt. In 2002 the respective figures were 0.94 mt (i.e. 47%) out of a total 2.0mt. Norwegian aggregate imports are predominantly crushed rock/granites, with some land won sand & gravel.
- Table 5 indicates that Norwegian aggregate imports to Medway in 2001 were 7,469 t and in 2002 were 62,082 t - but none for 2003. It is believed they relate mainly to a temporary use of the Chatham Dock basin only (as the figures for Red Lion Wharf are likely to be within the 'London'

category. No other Kent or Medway wharves were identified for Norwegian imports.

- Crushed rock from Norway is landed by self-discharging vessels of between 10,000-27,000 tonnes, but armourstone is usually landed from barges of between 1,500-20,000 tonnes and then usually direct onto beach defence works/sites (and not established marine wharves). The armourstone is normally included in the Aggregate Monitoring Return statistics but not all armourstone landings are recorded.
- No figures were provided for other foreign imports into Kent/Medway from France, Ireland or Denmark

'Inter UK' aggregate transhipments to Kent and Medway (excl. sea dredged aggregates):-

- Glensanda 'Superquarry' provides the majority of crushed rock supplies by sea into Kent and Medway.
- Aggregate is loaded into self-discharging vessels with capacities up to 97,000 tonnes.
- Much of the intended south east destinations for its products are sent by these vessels to the Isle of Grain Wharf in the Medway – this site currently has a capacity to handle 2 million tonnes p.a. through the existing processing facilities which now produce a range of products. The site can also load barges for transhipment of processed aggregates to other smaller wharves mainly upriver on the Thames. The site can also tranship aggregates onto rail via the existing rail siding.
- Glensanda materials are also landed at Robins Wharf at Northfleet, Kent.
- North Wales, Northern Ireland, Cornwall and the Shetlands also import aggregate materials into the South East and London, but no figures or specific destinations were provided for Kent.

Other Aggregate 'Imports' to Kent and Medway:-

- The report refers to China Clay 'aggregate' imports into the South East from Par in Cornwall but does not identify which wharf/wharves it is sent to.
- China Clay aggregate sources are potentially huge but volumes transhipments by sea declined significantly in 2004 (down to 42,000 tonnes to the Thames wharves) due to cost and vessel availability shortages.

Appendix 4

Summary of Safeguarded Wharves on the River Thames – a London Plan Implementation Report (LPIR), January 2005

Appendix 4 – Summary of Safeguarded Wharves on the River Thames – a London Plan Implementation Report (LPIR), January 2005

This document is the latest in a series of wharf safeguarding strategy measures to be approved by the Mayor of London following extensive consultation carried out with the Port of London Authority and the riparian local authorities over many years.

Wharf operators and users had been expressing their concerns about the disappearance of working wharves for many years prior to the advice given the London Planning Advisory Committee's (LPAC) to Government on Strategic Planning Guidance for London in 1994. This advice identified the need to ensure that existing and potential sites for wharves, maintenance facilities and other essential infrastructure were identified and safeguarded. The need to protect aggregate wharf facilities was a very important part of the overall background advice given.

LPAC and the Port of London Authority were charged with compiling a list of the essential minimum number of sites required to ensure continued and expanding use of the River Thames for the transhipment of cargo.

Since 1994, further documents (including the initial safeguarding document in 1997 of 28 wharves in London) have been prepared and a later Regional Planning Guidance (Note 3) have further progressed and enhanced the wharf safeguarding strategy – culminating in this LPIR which is intended to review the existing 28 wharves and consider safeguarding measures for another 45 sites downstream of the Thames Barrier.

The LPIR focuses on the Mayor's Strategies and new policies contained in the London Plan – which has now superseded the previous relevant parts of Regional Policy and Strategic Planning Guidance for the River Thames. Such new policies (e.g. those contained in Chapter 4C of the London Plan) now enable the Mayor to have direct influence over development proposals affecting the safeguarded wharves – see summary of main policies from the LPIR sections below:-

(2.25) Policy 4C.15 of the London Plan sets out the approach to Safeguarded Wharves on the Blue Ribbon Network: -

> **'The Mayor will, and boroughs should, protect Safeguarded Wharves for cargo-handling uses, such as inter-port or transhipment movements and freight-related purposes. The Mayor will, and boroughs should, encourage appropriate temporary uses of vacant Safeguarded Wharves. Temporary uses should only be allowed where they do not preclude the wharf being re-used for cargo-handling uses. Development next to or opposite Safeguarded Wharves should be designed to minimise the potential for conflicts of use and disturbance. The redevelopment of Safeguarded Wharves should only be accepted if the wharf is no longer viable or capable of being made viable for cargo-handling'.**

(2.26) The criteria for assessing the viability of wharves are set out in paragraph 4.105 of the London Plan: -

'The redevelopment of Safeguarded Wharves should only be accepted if the wharf is no longer viable or capable of being made viable for cargo handling uses. The only exceptional circumstance to this would be for a strategic proposal of essential benefit for London, which cannot be planned for or delivered on any other site in Greater London. The viability of a wharf is dependant on:

- **the wharf's size, shape, orientation, navigational access, road access, rail access (where possible), planning history, environmental impact and surrounding land use context**
- **the geographical location of the wharf, in terms of proximity and connections to existing and potential market areas**
- **the existing and potential contribution that the wharf can make towards reducing road-based freight movements**
- **existing and potential relationships between the wharf and other cargo-handling sites or land uses**
- **the location and availability of capacity at comparable alternative wharves, having regard to current and projected Port of London and wharf capacity and market demands**
- **in the case of non-operational sites, the likely timescale within which a viable cargo-handling operation can be attracted to the site, having regard to the short-term land-use policy, and long-term trade forecasts'.**

(2.27) The policy approach to Safeguarded Wharves is further explained by paragraphs 4.106 to 4.108 of the London Plan: -

- **'If a wharf is no longer viable, redevelopment proposals must incorporate water-based passenger transport, leisure and recreation facilities and water transport support facilities first, before non-river-related uses that do not require a riverside location'.**
- **'Appropriate temporary uses on vacant Safeguarded Wharves can ensure that investment in the wharf is maintained and image problems are minimised for the wider area. Temporary uses must maintain the existing cargo-handling infrastructure to a specified standard, be limited by a temporary permission with a specific end date and priority should be given to uses which require a waterside location as set out in Policy 4C. 12'.**

- **'Wharves are increasingly surrounded by different land uses that do not have an industrial or freight purpose. Many wharves are in the Opportunity Areas identified in Chapter 5. The challenge is to minimise conflict between the new and the old land uses. This must be met through modifications and safeguards built into new and established developments'.**

- **'Wharf operators should use the latest available technology, equipment and business practices. New development next to or opposite wharves should utilise the layout, use and environmental credentials of buildings to design away these potential conflicts. Boroughs should ensure that highway access to wharves for commercial vehicles is maintained when considering proposals for development of neighbouring sites'.**

(2.28) The approach taken in the London Plan to assess the viability of an individual wharf is distinct from that used in this report to periodically review the use of safeguarding directions on a pan-London basis. It is only at the pan-London level that the wider context to this review, e.g. national and regional policy and trade forecasts/wharf capacity, can be taken into account. Assessments on an individual wharf as part of the planning application process or UDP/LDD review mechanism will be expected to follow the criteria-based analysis identified at policy 4C.15 and paragraph 4.105 of the London Plan.

(2.29) Other policies in the plan (aside from those for the Blue Ribbon Network) are also relevant to the review of Safeguarded Wharves. The use of water transport for freight is encouraged in Policy 3C.24 of the London Plan: -

'The Mayor will promote the sustainable development of the full range of road, rail and water-borne freight facilities in London and seek to improve integration between the modes and between major rail interchanges and the centres they serve. The development of a London rail freight bypass route is supported. UDP policies should:

- **implement the spatial aspects of the freight element of the Mayor's Transport Strategy as developed by the London Sustainable Distribution Partnership**

- **seek to locate developments that generate high levels of freight movement close to major transport routes**

- **ensure that suitable sites and facilities are made available to enable the transfer of freight to rail and water through the protection of existing sites and the provision of new sites**

- **ensure developments include appropriate servicing facilities, off-road wherever practicable**

- **ensure collection and delivery can take place off the main bus and tram routes'.**

(2.30) This approach is further explained by paragraphs 3.216 and 3.217 of the London Plan:-

The Thames provides significant opportunities for sustainable freight access into the heart of the capital. The Thames is particularly suited to the transport of bulk materials, such as waste and aggregates. There is also potential for extending freight operations on the Lee Navigation and Grand Union canals. A collaborative approach is needed across London to focus, in particular, on encouraging new facilities and protecting, through the planning system, essential existing facilities supporting water-borne freight movement'.

The reliable and efficient distribution of goods depends in part upon a vibrant ports industry. London relies on a range of facilities to service its needs, including the Port of London. The Port of London Authority, the UK's biggest port, is a vital gateway for international trade. Although serving London, much of the port is physically located outside London. A regional ports study was undertaken by the South East and East Anglia Ports Local Authority Croup (SEAPLAG) and further collaborative work is ongoing between the CLA, 5EERA and EELCC to examine the regional implications of port expansion and, from a London perspective, ensure that transport implications for London are fully taken into account. Opportunities to support the development of the Thames Gateway region should be maximised. In addition, similar joint work is being undertaken in relation to strategic rail inter-modal facilities'.

(2.31) Policy 4A.5 of the London Plan sets out the spatial policies to support the better use of aggregates: -

'UDP policies should:

- **identify and safeguard aggregate resources suitable for extraction**
- **adopt the highest environmental standards for aggregates extraction in line with National Minerals Policy Guidance**
- **support the development of aggregate recycling facilities in appropriate and environmentally acceptable locations, with measures to reduce noise, dust and visual intrusion to a practical minimum**
- **safeguard wharves with an existing or future potential for aggregates handling and ensure adjacent development is**

designed accordingly to minimise the potential for conflicts of use and disturbance

- **protect existing railhead capacity to handle and process aggregates**
- **minimise the movement of aggregates by road'.**

(2.32) Policy 4C.27 of the London Plan supports green industries along the Thames: -

'**The Mayor will, and boroughs should, generally welcome the use of waterside sites, especially those within Strategic Employment Locations, for green industries, where the majority of materials transhipment is by water'.**

Developments which affect the nature/viability of cargo handling at the wharf will therefore only be allowed if there are exceptional circumstances and/or overriding needs which match other Plan objectives (e.g. the loss of Delta Wharf at the Greenwich Peninsular during the consultation process in preparing the LPIR).

The LPIR considers the release of 3 of the previously safeguarded wharves and only 25 of the proposed 45 sites for further safeguarding. Many of these sites are or could be used for aggregate handling and importation facilities

LPIR references to Aggregate Importation Facilities and Future Needs

- LPIR identifies that Greater London wharves in total have a capacity shortfall of 2.2 million tonnes p.a.
- The shortfall can be offset by a half if at least 3 vacant sites became operational for aggregate use.
- The PLA have identified a doubling of cargo for the Thames by 2020 – other cargos usage could then impact on aggregate wharf availability in the future.
- Eight of the additional proposed wharves for safeguarding are in Bexley London Borough. Four of these are existing operating aggregate wharves, another is planning/about to commence aggregate wharf operations, two are in other use and one is currently vacant.

Appendix 5

1993 Kent Minerals Local Plan – Construction Aggregates

Aggregate Import Policies

Appendix 4 - 1993 Kent Minerals Local Plan for Construction Aggregates - Aggregate Import Policies

POLICY CA1: WHEN CONSIDERING POTENTIAL LOCATIONS FOR WHARVES AND RAIL DEPOTS TO "RECEIVE AGGREGATES, THE COUNTY COUNCIL WILL NORMALLY REQUIRE THAT THEY (i) HAVE NO UNDUE IMPACT UPON ROAD SAFETY AND ROAD CONGESTION, (ii) AVOID RESIDENTIAL AREAS AND (iii) IN THE CASE OF WHARVES ARE CAPABLE OF LINKING TO THE RAIL NETWORK.

POLICY CA2A: PURSUANT TO THE APPROPRIATE STRUCTURE PLAN POLICIES PROPOSALS FOR WHARVES OR DEPOTS TO RECEIVE AGGREGATES WILL NOT NORMALLY BE PERMITTED ON LAND SUBJECT TO ONE OR MORE OF THE FOLLOWING CONSTRAINTS:

(i) SITES WHERE THE NATURE CONSERVATION INTEREST IS OF INTERNATIONAL IMPORTANCE (pursuant to the EC and national policy considerations set out below).

(ii) NATURE RESERVES AND SITES OF SPECIAL SCIENTIFIC INTEREST DESIGNATED BY ENGLISH NATURE (pursuant to Structure Plan Policy CC8).

(iii) AREAS OF OUTSTANDING NATURAL BEAUTY (pursuant to Structure Plan Policy CC7).

(iv) SPECIAL LANDSCAPE AREAS (pursuant to Structure Plan Policy CC7)

(v) THE BEST AND MOST VERSATILE AGRICULTURAL LAND (pursuant to Structure Plan Policy CC2).

(vi) AREAS OF SPECIAL SIGNIFICANCE FOR AGRICULTURE (pursuant to Structure Plan Policy CC8).

(vii) AREAS OF HIGH NATURE CONSERVATION VALUE (pursuant to Structure Plan Policy CC9).

(viii) IMPORTANT ARCHAEOLOGICAL SITES AND ANCIENT MONUMENTS AND THEIR SETTINGS (pursuant to Structure Plan Policy BE4).

(ix) METROPOLITAN GREEN BELT (pursuant to Structure Plan Policy MGB2).

POLICY CA2B: AREAS SUBJECT TO THE CONSTRAINTS LISTED IN POLICY CA2A WILL NOT NORMALLY BE REGARDED AS 'APPROPRIATE LOCATIONS' FOR WHARVES OR DEPOTS WITHIN THE TERMS OF STRUCTURE PLAN POLICY MWD3.

POLICY CA2C: WHARVES OR DEPOTS TO RECEIVE AGGREGATES WILL NOT NORMALLY BE PERMITTED OUTSIDE OF EXISTING PORT, INDUSTRIAL OR RAILWAY OPERATIONAL AREAS AND OF THE LOCATIONS IDENTIFIED IN POLICY

CA4. SPECIAL CIRCUMSTANCES WILL HAVE TO BE DEMONSTRATED TO JUSTIFY EXCEPTIONS TO THIS POLICY.

POLICY CA3: WHEN CONSIDERING PROPOSED WHARVES OR DEPOTS TO RECEIVE AGGREGATES THE COUNTY COUNCIL WILL NORMALLY REQUIRE THAT:

(i) THE PROPOSAL DOES NOT ADVERSELY AFFECT LOCAL FEATURES OF IDENTIFIED IMPORTANCE OR THEIR SETTING, AND/OR THAT SITE SPECIFIC PROTECTION POLICIES IN A LOCAL PLAN OR AREAS OTHERWISE IDENTIFIED AS OF CONSERVATION SIGNIFICANCE (EG CONSERVATION AREAS) ARE NOT COMPROMISED

(ii) THE OPERATION CAN BE CARRIED OUT CONSISTENT WITH THE REQUIREMENTS OF POLICIES CA16 TO CA23

(iii) THE PROPOSAL IS NOT UNDULY OBTRUSIVE IN THE LANDSCAPE

POLICY CA4: SUBJECT TO THE REQUIREMENTS OF POLICIES CA2A AND CA3 BEING MET, PROPOSALS FOR WHARVES OR DEPOTS TO RECEIVE AND DISPATCH AGGREGATES WILL NORMALLY BE PERMITTED AT THE FOLLOWING LOCATIONS IDENTIFIED ON THE PROPOSALS MAP:

Wharves and/or Depots	STONE MARSHES, DARTFORD ISLE OF GRAIN SHEERNES S/QUEENBOROUGH RIDHAM DOCK DOVER HARBOUR RICHBOROUGH CLIFFE TERMINAL STROOD
Depots	NORTH FARM, TUNBRIDGE WELLS HOLBOROUGH, MEDWAY GAP ALLINGTON, MAIDSTONE SHELFORD, CANTERBURY HERSDEN, CANTERBURY SEVINGTON, ASHFORD EAST PECKHAM

Appendix 6

Location Diagram for Wharves and Rail Depots