Paper 3

SOUTH WALES REGIONAL AGGREGATES WORKING PARTY

Regional Technical Statement

Issues Paper

The purpose of this issues paper is to set out the main issues that need to be addressed to deliver the RTS in the timescale set down by the Welsh Assembly Government(WAG).Minerals Technical Advice Note 1(MTAN1) indicates the RTS should be completed eighteen months after the completion of the important environmental capacity report(IMAECA) in February,2005.The target date is,therefore,September,2006.
Objectives set down in MTAN1,broadly define the parameters within which decisions will be necessary on a range of issues.These objectives are:-
*to provide a regional assessment of the environmental capacity of each MPA to contribute to an adequate supply of primary aggregates
*to provide a strategy for the provision of all types of aggregates in the region in accord with the regional assessment,with allocation of future aggregates provision for each MPA to provide a strategic basis to inform UDP's
*to assess the impact of current and future imports/exports of aggregates
*to assess the current and future contribution of marine aggregates
*to advise the WAG on the potential in each region in Wales for increasing the use of alternative materials to replace primary aggregates.

There is also the important necessity of carrying out a strategic environmental assessment,health impact assessment, and appropriate public consultation as part of the RTS process.These issues will need to be incorporated at the very beginning of the process.

The following issues will,therefore need to be considered now and as the RTS evolves,and will lead to the development and consideration of a number of options for the supply of aggregates in the S.Wales area over the forthcoming years.

1. Environmental capacity within the S.Wales region

2. How do we interpret the IMAECA results?Will it be sufficient to look at the areas indicating over-capacity of production as a first stage or would other GIS layers such as the existing quarries and supply patterns need to be overlaid to identify existing unsustainable practices?(either unsustainable operating practices or inappropriate locations)Should over-capacity in a rural area be considered in the same way as over capacity in an urban area?
3. **Landbank of permitted reserves for hard rock**
4. The latest SWRAWP annual report 2003 indicates there are adequate reserves of stone in all categories of hard rock.Demand is likely to remain relatively stable with no sharp increases anticipated within the next 5 years.Some reserves,however, will provide for non-aggregates.

5. How will the likelihood of reactivation of the existing reserves be determined?What are the extent of the reserves that can be considered live?Does their status i.e.dormant,inactive,or active make a difference?Can current and potential demand for geological resources be identified(proposed housing/industrial allocations/highway schemes/major projects) with any certainty?If so,how can the timescale for implementation be confirmed/estimated?

6. **Influence of supplies of marine sand and gravel**
7. Is the existing situation of marine supply likely to change?If so,within what timescale?If changes are likely,can their impacts be determined i.e. increased pressure on developing land based sand and gravel resources.What zone of influence does this supply generate at the moment?Is it as reported up to 30 km from the wharf or port or is the journey to market the critical factor?
8. **Land won sand and gravel**

9. At present,there are limited sand and gravel operations which are mainly confined to West Wales in Carmarthenshire,Ceredigion,and Pembs.In total,sales amount to approximately 200,00 tpa with reserves of 11 million tonnes.Considerable potential land based sand and gravel resources exist in several of the river valleys throughout S.Wales notably the Usk,Ewenny,Neath,Rhymney and Loughor.Other deposits exist in the Pyle and Caerphilly areas.These potential resource blocks,however,are constrained to varying degrees by environmental designations and many would require more detailed investigation and testing before they can be relied upon as an alternative to the existing supply regime.

10. The unconstrained resources are very unevenly distributed and not well placed to serve potential markets.Consequently,there is likely to be pressure at some point in time on constrained resources thereby generating issues of balancing environmental impact with the need for continued supply for economic reasons.In the meantime,WAG have sought to ensure that resources are protected by the introduction of safeguarding areas in the UDP's.This has proved controversial and generated considerable opposition in some areas.Further detailed analysis of resources will be required in the near future to determine workable/economic resources.

11.Sources of secondary aggregate

12. The use of secondary aggregates such as colliery spoil,power station ash,electric arc steel furnace ash,pulverised fuel ash,steel slag, and foundry sand as a replacement for primary aggregates is one of the key objectives of the MTAN1.Are the sources being fully utilised at present and if not, how can we increase the use of secondary/recycled aggregates?Are there any other new sources(china clay) likely to come on-stream and if so,when?What constraints does the type of aggregate and location of the market have on the use of the material?Can any of the material be used for high quality end use?

13.Sources of construction and demolition waste

14. Preliminary findings of the Smiths Gore survey on construction,demolition and quarry waste in 2003 ,indicate that approximately 85% of waste suitable as a substitute for aggregates is already being utilised.In general,such material is providing for low end use such as fill for engineering works,restoration and capping etcIs the remaining 15% economically viable to separate this waste stream.This being said current research being undertaken by the EA on construction sites seeks to determine what opportunities are available for tapping this source.Unfortunately,the results of this research are unlikely to be made available until the early part of 2007.
15. With the increasing number of materials recycling facilities(MRF's) evident and the number estimated to be needed by 2010(see the S.West Wales Regional Waste Plan)it is likely the volume of useable i.e. unmixed,c and d waste is likely to increase.Such materials are already being mixed with primary aggregates to overcome the Aggregates Levy(the ratio of primary/recycled aggregate must be a minimum of ….%)in certain quarries.
16. The current situation suggests that the bulk of readily useable construction and demolition waste is being used and there are no

significant sources being left untapped.Unless there are significant fiscal changes i.e. an increase in landfill charges and/or the Aggregates |Levy circumstances are unlikely to change.The impact of site management plans ,however,which are being required under the provisions of the Clean Neighbourhood Act may initiate a reduction in the use of primary aggregates but the impact is difficult to quantify.

17. Are the main uses for on-site works on brownfield sites or is there any significant surplus to alter supply patterns e.g.Materials Recycling Facilities?Is the current low end-use of the material likely to change?If not,is this material competing with use of quarry waste which allegedly is not so marketable since the Aggregates Levy was introduced?

18. <u>Crushed Rock Fines(including sandstone quarry sands)</u>

19. It is evident that approximately 2 million tonnes of quarry waste is being stockpiled in quarries throughout Wales(Smiths Gore report 2003)This may be a direct/indirect result of the Aggregates Levy and/or the Landfill Tax.It appears as though this material is being substituted by construction and demolition waste and also secondary aggregates such as slate in N.Wales.This source of material is of course much closer to areas of demand i.e.within settlement boundaries or close to the periphery of such areas.An unfortunate consequence of such events,is the possible sterilisation of reserves at quarries due to the necessity to stockpile within existing quarry boundaries.Will this lead the industry to consider further waste minimisation techniques or is maximum efficiency already being achieved?It is assumed that the processing levels are at maximum efficiency so that the level of marketable product is maximised.Nonetheless,the circumstances at each quarry are likely to be different thereby reducing the ability to estimate the impact of growing waste stockpiles on the life of the site.
20. The impact of the Mining Waste Directive is also difficult to quantify.This will need to be examined and monitored as part of any review of the RTS.
21. In the interim,current and recent research is attempting to find alternative uses for quarry waste but a combination of the need for processing; location of quarry to market;and nature of waste;all weigh against an easy solution.
22. If there are significant markets for these products are there any high end uses other than sub-base,horticulture,drainage etc?If not can their zones of influence be determined?Do processing costs i.e. washing/screening obviate their replacement of marine sand?

23. Imports/exports

24. Without an environmental capacity exercise being carried out in England in the near future,can the sustainability of imports/exports be determined on a UK wide rather than Wales- wide basis?In the absence of a comparable exercise is it worthwhile trying to determine the location of alternative high PSV sources in England and whether or not the areas would be acceptable in terms of their level of environmental capacity?Will assumptions have to be made in the absence of a clear ODPM steer?

25. Geological resources

26. The database of rock types identified in the environmental capacity report(IMAECA)gives an excellent start for determining the potential marketability of different rock types.Other factors ,however,such as the presence of drift material covering the resources,faulting,landslip, and local factors may make it difficult to determine real alternatives without detailed site investigations being carried out.Will this prejudice the consideration of different supply options or will assumptions have to be made?

27. Capacity of quarry output

28. The working capacity of some quarries is unknown.Will the lack of knowledge of the full working capacity of quarries undermine future consideration of options?Is the quarry industry able to provide such data subject to it being kept confidential?Problems with the access to information under the Freedom of Information Act are already evident.This will make the determination of demand and how it can be can be satisfied from particular locations very difficult.
29. Other issues are also evident such as permitted development rights which allow certain quarry plant to be replaced subject to approvals which are normally a formality unless serious impact on the local amenity can be demonstrated.

30. Changes in construction methods/use of alternative materials

31. It is evident there has been a noticeable change in some building practices due to the continuous change in building regulations which demand higher thermal efficiency of buildings.In addition,much research has and is being carried out to determine if materials like glass,rubber etc can substitute for aggregate on a large scale.Does the RTS need to attempt to consider the potential influence of such

materials or is the potential limit of use already deemed relatively insignificant in terms of the total tonnages of aggregates produced?

32. The recent ODPM monitoring report regarding the intensity of use and demand forecasts for Wales states that…..

33. Fiscal influences

34. Is it possible to predict increases in the rate or nature of the Landfill Tax/Aggregates Levy and if so what influences are they likely to have on the use of primary aggregates?Is the response of the quarry industry to the Aggregates Levy,as set out in the Quarry Products Association's response on this subject (QPA assessment of the impacts of the aggregates levy-Sept 2003),deemed reasonable and justified?If not,is it reasonable to leave such issues to the review of the RTS?

35. The supply of aggregates does have an external environmental impact.The DETR study…"The Environmental costs benefits of the supply of aggregates in 1998" found that the average cost,weighted by the output of sources of different types in the UK was £4.60 per tonne.There is,however,still substantial uncertainty about the exact level of environmental costs primarily due to potential sources of bias in the estimates and the scale of bias which varies from site to site.

36. **Ratio of population to consumption**

37. Estimates have been made (Arup 2003)which indicates the average person consumes 5 tonnes of aggregate per annum.*If authorities are currently consuming but not supplying aggregates(Swansea and Torfaen)should an assessment be made of the tonnage and the area expected to supply it(assuming aggregates or substitute aggregates are available)in accordance with the proximity principle ?This would enforce ownership of the aggregates in a particular area and go some way to spreading any adverse effects and perhaps recognition of the necessity of aggregates to sustain their quality of life.This could be considered at the options stage of the process and incorporated into the LDP allocation(apportionment) stage if considered acceptable.

38. Public consultation

39. Many people are not conversant with the value of aggregate extraction and how it sustains everyday lifestyles.There is a common perception that living in close proximity to quarries will have deleterious effects

on health,house values,and the character of the area.Whilst the industry and ODPM have taken some steps to address this misconception we should not underestimate the apparent negative attitude that some people have to mineral extraction in general.This may be due to bad experiences with quarrying or a lack of understanding about the minerals industry.This is clearly an issue that needs to be addressed and one that poses a question as to how the purpose and the meaning of the RTS can be conveyed to people so that they not only understand it but are able to make constructive comments.

40. How then should the public participation exercise, which will inform the Health Impact Assessment,be structured?Should it be targeted to communities living in close proximity to existing workings or should the opportunity be given for free and equal access to all?What is evident at present is that the Freedom of Information Act demands that the process be transparent and an audit or similar record kept of the process as it develops.
41. Some good practice guidance has already been developed(Good practice for the stakeholder engagement in the aggregates sector-The Environment Council 2004) and this will be useful in achieving a satisfactory process which is open to scrutiny.

42. **Health Impact Assessment and Strategic Environmental Assessment**.

43. Such assessments will be required for the RTS and whilst the IMAECA environmental capacity report will contribute to the assessments,additional work will be necessary to address socio-economic issues as well as environmental issues.It is anticipated that such assessments will initially be addressed using existing in-house expertise such as the RTS sub group.However,this may prove inadequate and contingencies may be required.This issue requires further discussion.
44. A HIA must be considered at the outset and developed as any supply options emerge.In this way the potential health effects are not introduced as an after thought and presented as a fait accompli.Any public participation exercise carried out as part of the RTS process will feed into and inform the HIA process.
45. A strategic environmental assessment(SEA)must be considered as the RTS is a regional/strategic plan which may have significant effects on the environment and is therefore caught by the relevant regulations.*Such assessment only covers environmental not

social/economic effects,but it must still be carried out in a comprehensive ,robust and transparent fashion.As mentioned previously,the IMAECA report will be of great benefit in this process but it must be acknowledged that the detailed examination of supply options will be necessary by statutory undertakers such as the EA and CCW, who form part of the SWRAWP.

46.Conclusion

47. The foregoing issues have been set out to stimulate discussion on the key issues at a preliminary stage in the RTS process.Members will no doubt have different views on the way in which such issues should be tackled and the priority they should be given.It must be acknowledged by all,however, that some issues will evolve and change over time but this is inevitable with a new process.