

Glasgow and the Clyde Valley Strategic Development Plan

Proposed Plan

Background Report 10

Minerals Search Areas

June 2011

A large, bold, white number '10' is centered on a solid blue rectangular background. The '1' is a simple vertical bar with a slightly rounded top. The '0' is a thick, rounded shape with a vertical slot in the center. The entire graphic is set against a light grey background.



Contents	Page
Introduction	1.
Confidentiality restrictions	2.
Methodology	2.
Supply context	4.
Aggregate minerals	4.
Surface coals	5.
Demand context	6.
SDP response	8.

List of Figures		Page
Figure 1	Map of GCV area	1.
Figure 2	Key stages in the process	3.
Figure 3	Search Areas – the ‘Indicative Model’	10.

List of Tables

Table 1	Sand and Gravel Aggregate Workings in GCV Area	5.
Table 2	Sand and Gravel Aggregate Workings outwith GCV Area but “Export” to GCV	6.
Table 3	Hard Rock Aggregate Workings in GCV Area	6.
Table 4	Hard Rock Aggregate Workings outwith GCV Area but “Export” to GCV	6.
Table 5	Surface Coal Workings in the GCV Area	6.

Introduction

1. The Glasgow and the Clyde Valley Strategic Development Planning Authority (GCVSDPA) is a local government strategic planning body comprising a joint committee of eight local authorities in the Glasgow and the Clyde Valley area working together on the preparation of a long-term (25 years) Strategic Vision and related Strategic Development Strategy (SDS). The resultant Strategic Development Plan (SDP) will replace the current Glasgow and the Clyde Valley Joint Structure Plan. The eight constituent local authorities are East Dunbartonshire, East Renfrewshire, Glasgow City, Inverclyde, North Lanarkshire, Renfrewshire, South Lanarkshire and West Dunbartonshire (Figure 1).

Figure 1



More information on the work of the Joint Committee can be found at www.gcvsdpa.gov.uk

2. Minerals constitute a key natural resource supporting the economic growth and development of the city-region. The SDP has a firm and consistent ‘direction of travel’ in support of the pursuit of a low carbon economy and sustainable development. One of the key planks or principles underpinning that ‘direction of travel’ is the concept of ‘Local Supply’ of such natural resources so as to avoid unsustainable imports and/or to minimise distances of travel from source to point of consumption. ‘Local supply’, in the context of minerals, means the development of the indigenous resource rather than rely upon imports.

3. A recent report for the Scottish Government and partners – ‘Raw materials critical to the Scottish economy’ (January 2011) identified aggregate minerals as one of a body of raw materials essential to the future medium and longer-term development of the Scottish economy and especially the construction sector, which is likely to be increasingly difficult to source and which, through supply-demand, could rise rapidly in cost. (http://www.sepa.org.uk/science_and_research/publications.aspx)
4. In addition, surface coals remain a key input to the current and future Scottish energy equation and to the maintenance of ‘base-load’ energy generation. Whilst the development of clean renewable energies continues apace and will receive greater stimulus through various legislative incentives, ‘base-load’ remains an issue. It is currently reliant upon nuclear and coal-fired stations in Scotland, but with development of future nuclear stations in Scotland now effectively a real question, the significance of coal-fired generation and the development of ‘carbon-capture’ technology becomes a central issue. Scottish Power is committed to the development of carbon capture at its existing Longannet coal-fired generating station in Fife.
5. Against this context, this Background Report provides a reasoned justification for the SDP’s strategy on minerals, addressing both aggregate minerals – i.e. hard rock, sand and gravels - and surface coals.

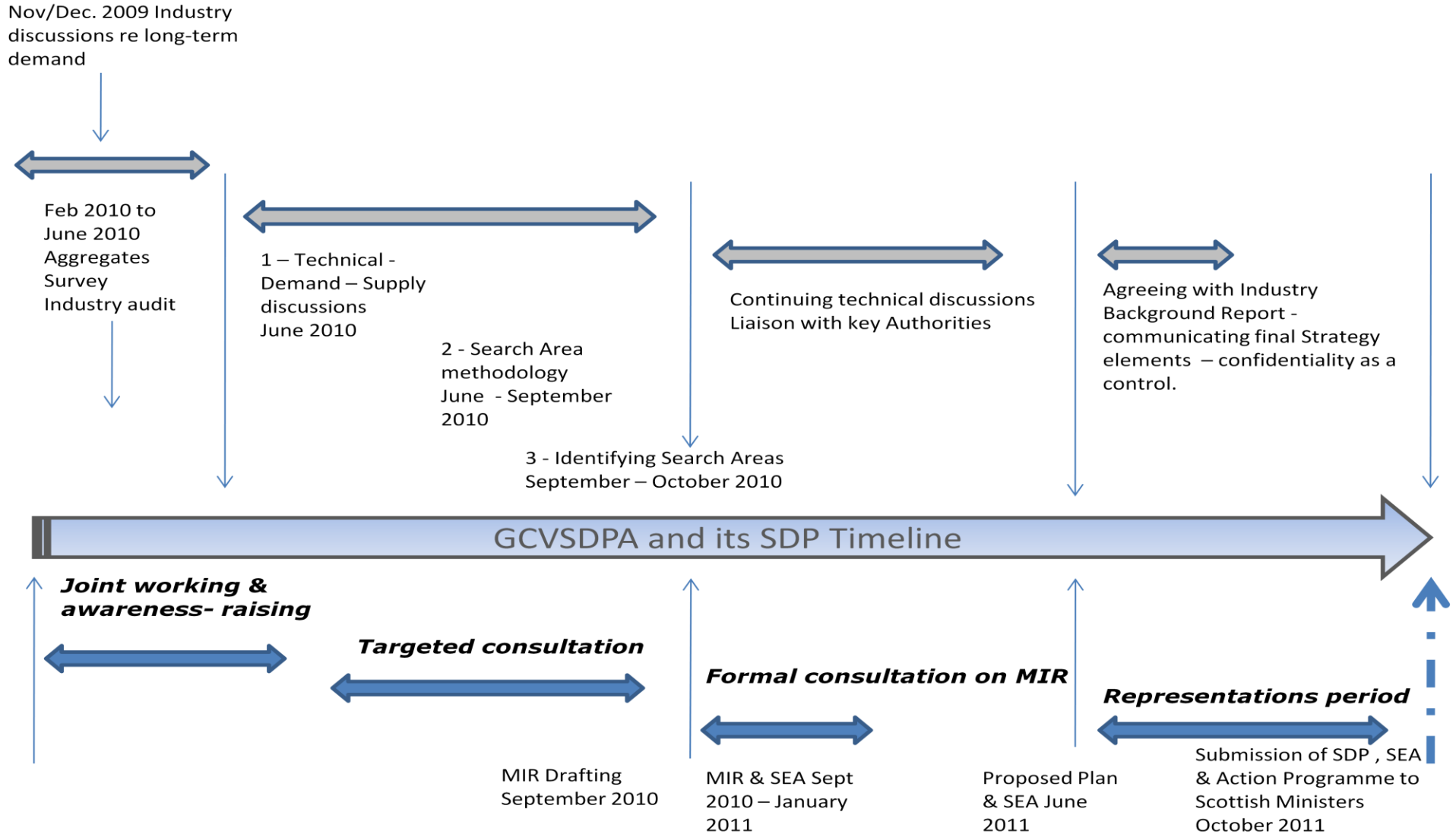
Confidentiality requirements

6. The development of minerals is dominated by private companies and as such, despite the respective industries – aggregates and coals – having umbrella organisations, there is a significant level of competition between constituent companies, particularly in the aggregates market. This situation therefore involves a significant degree of commercial confidentiality when it comes to the issue of production and resource data amongst companies. In order to work with that situation and to respect the need for such confidentiality, agreement was reached for the supply of relevant data to the SDPA by Aggregate operating companies under the banner of an appropriate Confidentiality Assurance (Appendix 1).
7. This Background Report is therefore framed within that agreement and data are therefore generalised to protect confidentiality or has been published with the explicit agreement of individual operating companies.

Methodology

8. The methodology was constructed around two primary aims – to establish
 - a) a demand – supply picture for aggregates into the long-term to 2035
 - b) an indicative spatial model of ‘Search’ for new workable reserves

Figure 2 AGGREGATE MINERALS GCVSDPA 2011 – STUDY METHOD AND STAGES



- c) The diagram above effectively summarises the overall approach to meeting these two aims. The study required a data-base to be established in respect of known aggregate workings and of supplies committed in the future through the Planning process. This aim required the commitment and assistance of the Aggregates Industry so as to ensure a current view of supply – base-date of 2010. Analysis of annual production rates and consented reserves were used to establish a likely ‘exhaustion’ date for each reserve.
- d) The demand context, looking to 2035, is obviously subject to considerable ‘unknowns’ – health of the economy, rate of economic recovery, rate and scale of development, capital expenditure programmes of Government, life-style demands etc. This aspect was therefore approached through structured discussion and development scenarios, drawing upon the work of the GCVSDPA’s Strategic Futures Group (refer related Background Report).
- e) The two aspects of demand and supply were integrated in order to reach a conclusion on the need for amplifying future supply to meet the needs of the economy to 2035.
- f) The spatial aspect of addressing any identified need is naturally framed by where aggregate supplies are found in sufficient scale and quality to meet the needs of the economy. The principle of ‘local supply’ (paragraph 2) applies a sustainability imperative to source as locally as is feasible within economic, social and environmental constraints. Establishing broad strategic level ‘search areas’ , as the basis of an ‘Indicative Model’, was the preferred planning approach for the resolution of any identified shortfall in supply to 2035. The methodology by which such areas were to be translated into local development plans, balancing the potentially conflicting aspects of economy, society and the environment, was to be devolved to the relevant constituent local authority.

Supply context

- g) Tables 1 through 5 set out the current (2010) picture regarding operational and pipeline (consented) workings for sand and gravel and hard rock aggregate and for surface coals.

Commentary

Aggregate minerals

- h) Taking each table in turn, and in order to respect commercial confidentiality, the data have been generalised to focus upon the duration of supply and the anticipated

exhaustion dates of the actual workings, and not to set out in detail the production details and distribution flows of material from individual workings.

- i) Table 1 – This table spells out one clear message – beyond 2021, there will be a highly limited indigenous supply of sand and gravel in the GCV area to support future development. The majority of working sites and a number of the pipeline sites will be exhausted within the first ten year period of the SDP. This message is in line with the recent SNIFFER support (paragraph 3) which identifies aggregate, as a raw material critical to the Scottish economy, being in short supply.
- j) Table 2 – This table looks at current locations outwith the GCV boundary from which sand and gravel is imported into the GCV area to meet demand. Similarly with indigenous GCV supply, that supply is constrained beyond the 2021 period.
- k) The message conveyed by both tables is a strategic economic need to increase supply of sand and gravel aggregate supply in the medium to longer term.
- l) Table 3 – This table paints an opposite view for hard rock aggregate reserves and workings. A significant reserve is in place throughout the life-span of the SDP, catering for the short, medium and longer-term.
- m) Table 4 – This table indicates a limited import of hard rock from outwith the GCV area, reflecting the significant working and consented supply within the area.

Surface coals

- n) Table 5 – This table addresses the issue of surface coals and reflects a similar position to that of sand and gravel aggregate – short-term availability only with a severely constrained supply issue beyond 2020.

Table 1 Sand and Gravel Aggregate Workings in GCV Area

Location		Anticipated Completion Period 2011 - 2035			
	No. of sites	2011 - 15	2016 - 20	2021 - 25	Post 2025
Avon Valley	2		X		X
Douglas Valley	1	X			
Mouse/Medwin valley	4	X	X		X
Clyde Valley	3	X	X		
North of Glasgow	1			X	
North-east of Glasgow	1		X		

Table 2 Sand and Gravel Aggregate Workings outwith GCV Area but “Export” to GCV

Location		Anticipated Completion Period 2011 - 2035			
	No. of sites	2011 - 15	2016 - 20	2021 - 25	Post 2025
Stirlingshire	1		X		
Perthshire	1			X	

Table 3 Hard Rock Aggregate Workings in GCV Area

Location		Anticipated Completion Period 2011 - 2035			
	No. of sites	2011 - 15	2016 - 20	2021 - 25	Post 2025
South-west of Glasgow	2	X			X
North-west of Glasgow	3				X
East of Glasgow	2				X
South-east of Glasgow	1				X
North-east of Glasgow	3	X	X	X	
Clyde Valley	2			X	X

Table 4 Hard Rock Aggregate Workings outwith GCV Area but “Export” to GCV

Location		Anticipated Completion Period 2011 - 2035			
	No. of sites	2011 - 15	2016 - 20	2021 - 25	Post 2025
Lothians	1			X	

Table 5 Surface Coal Workings in the GCV Area

Location		Anticipated Completion Period 2011 - 2035			
	No. of sites	2011 - 15	2016 - 20	2021 - 25	Post 2025
South Lanarkshire	3	X	X		
North Lanarkshire	1	X			

Demand context

- Forecasting demand for energy and for development into the long-term to 2035 requires a flexible approach due to the high levels of uncertainty inherent in the key drivers of change underpinning the economy and society’s life-style choices through to 2035.

22. The process of building a demand context within the context of 'local supply' for the GCVSDP area therefore requires to be founded upon a systematic analysis of the delivery requirements of the spatial components of the SDP through to 2035 and their anticipated completion dates within that period. Given that an Action Programme accompanies the SDP highlighting implementation timelines and responsibilities, that Programme provides a frame for analysing likely demand.

The Clyde Corridor – comprises two key strategic Flagship Initiatives – the Clyde Waterfront and the Clyde Gateway. Each is formulated as foundation stones of the Spatial Development Strategy (SDS) and each is formulated as a 25-year rolling programme of regeneration and redevelopment to drive forward delivery of the SDS. The Clyde Waterfront stretches from Kingston to Greenock, including intensive action over fifteen miles of both north and south riverbanks from Kingston to Erskine, as well as more focused action in Dumbarton and Inverclyde. At present, it is early days but much has been achieved; yet much remains to be done and the Initiatives are designed as truly generational in nature and transformational in intent. The strategic importance of the Corridor is reflected in the National Development priorities of the Scottish Government's National Planning Framework.

Glasgow City Centre – is the economic core of the city-region demanding continued investment in its development. It is and will continue to be the focus of major investment in new office and retail activity, in educational facilities and most significantly in potential new rail stations for both regional networks and high-speed rail.

Ravenscraig – comprises a medium-term project to renew central Lanarkshire and bring a future focal point in the form of a new town centre for the communities of Motherwell, Wishaw and surrounding communities.

Community Growth Areas – comprises thirteen different communities of long-term residential and mixed-use development, totalling over twenty thousand new homes in sustainable locations.

Major projects – the Commonwealth Games take place in 2014 and will form a key development 'driver' for the Gateway project. The infrastructure surrounding the Games is identified in the NPF2 as a 'National Development'. It is acknowledged as short-term, in plan terms.

Transport and Infrastructure – over and above the rail issues noted for Glasgow City Centre, the Scottish Government's Strategic Transport Projects Review (STPR) identifies a number of transport projects which will lead to potentially significant changes in the rail and road transport networks. The development long-term of a High-Speed Rail network will place a significant further demand. Additionally, the

Metropolitan Glasgow Strategic Drainage Plan, another NPF2 'National Development', is a medium to long term project to renew the drainage infrastructure of the metropolitan area.

23. It is impossible to put a specific figure on the scale of aggregate resource that will be required to deliver these various strategic priorities over the twenty-five period, but the overall scale of development associated with these priorities will place a continuing demand upon the available aggregate resource within the city-region. Given the situation demonstrated in Tables 1 and 2, it is evident that the current available resource cannot meet medium and long-term demand beyond 2021 and that new resources will need to be identified.

Energy

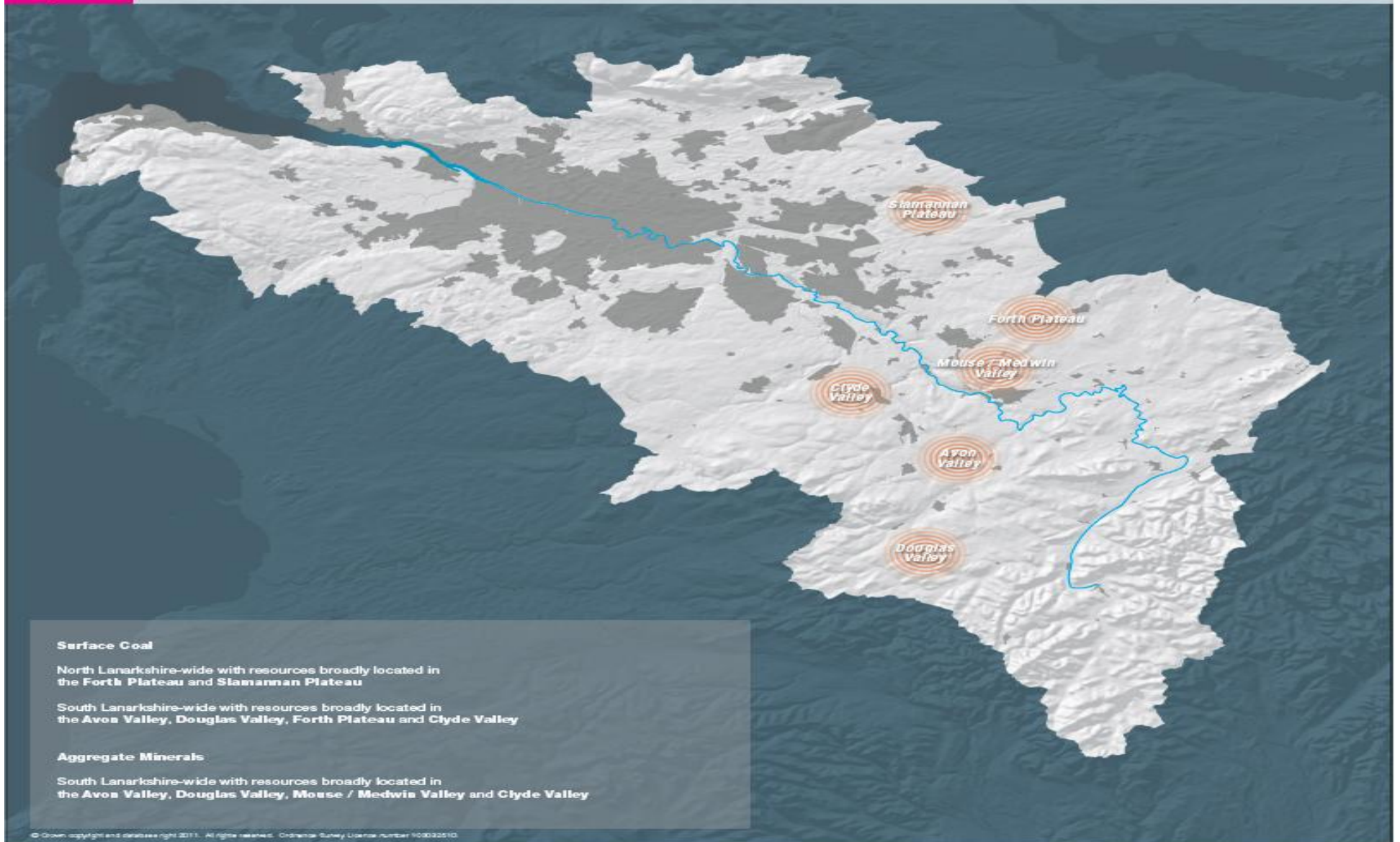
24. If Climate Change mitigation targets are to be achieved, it is evident that the current energy generation and consumption paradigm will require to change from principally carbon-based fuels to non-carbon fuels and 'smart-systems'. The Scottish Government's direction of travel in this respect is clear and the SDP's adoption of a 're-balanced' future economy towards new 'green' technologies and environmentally related 'products' is evidence that the energy paradigm is to change. The SDP puts in place key planning provisions to assist the paradigm shift at both generation and consumption levels.
25. The issue of 'base-load' generation (paragraph 4) remains fundamental to the generation debate. Whilst the development of renewable energies is essential to the direction of travel, in the short and medium terms they cannot guarantee 'base-load' electricity and given that the nuclear option has been firmly rejected by the Scottish Government, coal-fired generation must remain a key element of the supply. Carbon capture and storage (CCS) is under development as a technology which will address the emissions issue of such power generation. On this basis, demand for indigenous coals can be expected to remain strong.

SDP Response

26. Following the application of 'local supply' thinking and sustainability principles in order to support indigenous economic growth, there is therefore a strong demand-supply argument to maintain and increase GCV sand and gravel aggregate supply post- 2021 and surface coal supply post-2019.
27. The philosophy underpinning the SDP involves the devolution to individual constituent local councils of the responsibility for translating a strategic demand into a detailed local planning solution based upon a broad strategic search context.

28. It is self-evident that the future geography for meeting demand for sand and gravel aggregate and surface coals must be dictated by the presence of the actual resource. The SDP's 'Search Area' approach therefore reflects that basic geography (Diagram 3 (Diagram 15 of the SDP)). The development of new sites will be dictated by a wide range of detailed local issues which lie outwith the ambit of the SDP – proximity to communities, accessibility, environmental issues, infrastructure capacity, etc. The SDP therefore devolves the resolution of such detail to the relevant constituent councils to be addressed through the local development planning and through the development management process.
29. Liaison with both North and South Lanarkshire, as the constituent councils most relevant to the 'Search Areas' approach for sand and gravel aggregate and surface coals, has been underway in tandem with the development of the SDP and both councils will reflect the approach in their local development planning, subject plans and supplementary guidance.

Diagram 15 Minerals: broad areas of search



Appendix 1

Dated 29 March 2010

GLASGOW AND THE CLYDE VALLEY STRATEGIC DEVELOPMENT PLAN 2011

AGGREGATE MINERALS – SURVEY OF SUPPLY AND RESOURCE CAPACITY WITH THE INDUSTRY 2010

CONFIDENTIALITY ASSURANCE

Any commercially sensitive information submitted will be treated as confidential. On behalf of the Authority, it has already been agreed with industry representatives by the SDP Manager that data relating to individual operators will not be disclosed directly, or by deduction, in any of the published figures. All published figures must relate to production based on the 'Three Company' rule i.e. from at least three companies. This rule has previously been applied to Aggregates Surveys in Scotland. Individual company data relating to extraction rates and reserves will be held in confidence and will not be used for any other purpose than informing this Survey and the derivation of an overall demand – supply assessment for the preparation of the Strategic Development Plan and its long-term approach to strategy.

Signed on behalf of the Authority

Dr. Grahame Buchan, GCVSDPA Manager





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