The Falkland Islands Government

COVERING NOTE

This document has been released for the public following the Executive Council of March 2013.

The contents of this document represent the views and opinions and not necessarily a factual summary of several interested parties in relation to the development of infrastructure in and around Stanley for the next several years.
Towards an Infrastructure Delivery Plan

Report commissioned by the Director of Central Services, Falklands Islands Government

March 2013

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EXECUTIVE SUMMARY

1. This paper has been commissioned to help address the key decisions which must be made about the basic infrastructure needed to support oil and gas development and the future requirements of the Falkland Islands – in particular of Stanley. Its objective is to begin to develop a strategic steer to the way forward to develop an Infrastructure Delivery Plan (IDP). It has three basic purposes:
   1. to begin to identify the range of issues and the main choices in each case – and to establish the necessary timing of decisions on these, and which are critical;
   2. to help to identify the interrelationships between decisions;
   3. to assist in developing a process for refining and developing the right approach to infrastructure planning.

2. Section 2 considers the current strategic context, and its adequacy to support infrastructure planning. A review of the development implications of oil and gas is contained in Section 3.

3. The paper addresses the following three broad areas:
   1. the key initial infrastructure decisions, especially directly or indirectly related to oil: Section 4;
      
   34 separate Decision Areas are identified, under the following headings:
   
   A. Port related
   B. Other development issues to north/west of Stanley
   C. Utilities/general infrastructure
   D. Housing
   E. FIPASS, FIPASS2 and Gordon Lines developments
   F. Other land use issues

   2. the longer term context for infrastructure requirements, and the relevance of the review of the Structure Plan & Town Plan: Section 5;

   3. the need to achieve commitment in the development of the IDP, covering approaches towards consultation and engagement: Section 6.

3. The final Section 7 reaches conclusions and discusses the way forward, concluding that the next steps should be to consider whether all the key Decision Areas have been identified, and to reach agreement on the range of choices which need to be considered under each. The development of the IDP, as a package of decisions, should aim to achieve a strategy which is robust and resilient to potential scales of change (eg. in oil production), but also one which is the product of close partnership with all the key parties.
Towards an Infrastructure Delivery Plan

1. INTRODUCTION

purpose of this paper

1.1 The discovery of oil and the progress towards its exploitation, coupled with the prospect of major oil revenues in the near future, have major implications for the Falkland Islands. There are major challenges ahead if the distinctive Islands’ character and culture are to be maintained, whilst the production of oil is supported and the changing economy is managed.

1.2 This paper has been commissioned to help begin to address the key decisions which need to be made about the basic infrastructure necessary to support oil and gas development and the future needs of the Islands – in particular of Stanley. Its objective is to help to develop a strategic steer to the way forward. It has three basic purposes:

1. to begin to identify the range of issues, and the main choices in each case – and to establish the necessary timing of decisions on these, and establish which are critical;

2. to help to identify the interrelationships between decisions;

3. to assist in developing a process for refining and developing the right approach to infrastructure planning.

1.3 The intention is to provide a starting point for the development of an overall strategic approach in the form of an Infrastructure Development Plan (IDP). When completed, the IDP should provide a structure for making decisions about development proposals which are feasible and realistic, meet overall objectives for the future of the Islands, and which are consistent and co-ordinated with each other. The IDP should be a living document which is refined and changed through time.

1.4 This paper is not the IDP itself – or even an early draft. The IDP will require much discussion and analysis, and perhaps resolution of competing points of view. It would be presumptuous to attempt to resolve the relevant issues from such a limited commission. It is however intended to start the process of development, and make sure that key matters are considered right from the start within an appropriate framework.

what do we mean by “infrastructure”?

1.5 Infrastructure essentially means all those structural elements that support the local economy and the operation of day to day life. This paper takes a broad definition of infrastructure, in all its economic, social and environmental forms. Whilst the paper will have a specific focus on those facilities and services necessary to support oil exploitation, it will necessarily widen the discussion to
consider indirect economic and social implications. Thus it cannot restrict its consideration just to basic infrastructure elements such as the provision of utilities like water or power, but must also address provision of housing to meet the needs of all sectors of the community, whether oil-related or not.

1.6 To demonstrate the range of issues considered, Appendix A sets out a broad listing of the elements of infrastructure which the IDP should address, culled from available research about needs and future requirements in the local context.

**methodology**

1.7 This work, commissioned by the Director of Central Services, comprised three elements:

1. an initial desk-top study of written material;

2. a brief 3 day visit to the Falkland Islands to meet key representatives, make contacts, and glean basic impressions of key issues and concerns. This was followed by a number of contacts with representatives based in the UK. Those contacted are listed in Appendix B. In order to elicit rapid and unconstrained views, the comments received have not been attributed, but help to form the range of choices and considerations drawn together here;

3. documentation of conclusions in the form of this paper.

**wider links**

1.8 A Programme Initiation Document is being developed to guide the day to day process of managing decision making, which will draw from and implement the eventual IDP.

1.9 The IDP will need to reflect, sit within and help to deliver a number of other key strategies, including the Islands Plan and the Economic Development Strategy. There is a particularly important relationship with the Falklands Islands Structure Plan and the Stanley Town Plan (hereafter SP/TP). Most of the matters considered in this paper relate to the spatial planning of the Islands, Stanley in particular.

1.10 Because of the need to make progress as rapidly as possible – reflecting the timescale being driven by the development of oil, and the need to deliver key proposals such as the proposed new port – preparation of the IDP cannot await the full review of the SP/TP, which is proposed to be undertaken in the next 18 months – 2 years. Much of the context of the IDP, and many of the wider issues, will need to be addressed in that review. This report seeks to make clear the relationship with the SP/TP throughout, and to offer some suggestions about issues which will need to be picked up in that review.
Section 2 following considers the current strategic context in a little more detail.

1.11 This work is also heavily underpinned by analysis undertaken by the Falklands Islands Government (FIG), and in particular by research undertaken for the oil industry. A very helpful paper was also supplied by the Chamber of Commerce, concerning “resourcing for the Falklands future”. Sources utilised will be referenced in the report.

**scope and format of this paper**

1.12 A review of the development implications of oil and gas is contained in Section 3. The paper then seeks to address the following three broad areas:

1. the key initial infrastructure decisions, especially directly or indirectly related to oil – Section 4;

2. the wider context, including longer term infrastructure requirements – Section 5;

3. the potential methodology for decision making to develop the IDP, including towards establishing a strategic approach to consultation and engagement – Section 6.

1.13 The final Section 7 reaches conclusions and discusses the way forward.

1.14 It has not been the nature of this commission to undertake basic research, but to take soundings from a wide range of interested parties, and to utilise existing studies. Much research, particularly for the oil companies has been undertaken, but more is in hand, which needs to be concluded before many of the decisions identified here could be taken.

1.15 At this stage in the process, there should be little which is a surprise in this report, in terms of the individual components – although some aspirations about certain issues may not be widely known. Given the nature and size of the Stanley community, clearly there is frequent dialogue between the key parties. What is, arguably, unusual in the Falkland Islands context is to see these issues drawn together, and the emerging choices to be set out – and to begin to place these pieces in the context not just of immediate day-to-day decisions but of a long term strategy. That is the main area where significant value can be added by the production of an Infrastructure Development Plan.
2. STRATEGIC CONTEXT

2.1 The Infrastructure Development Plan will need to focus on making decisions about key elements of physical investment. It will concentrate on practical issues. But these decisions will need to be taken in the context of the overall objectives, and direction of change, which the Falkland Islanders themselves need to determine. In some respects these strategic matters have been established, but in others, there still seems to be considerable scope for debate and resolution.

2.2 Before considering specific decisions about infrastructure, some brief comments will be made on the existing strategic context, based on observation of the written material, but supported by frequent comments made in the meetings undertaken.

2.3 The mechanisms for articulating the desired future vision are (and have been for some time) in place – for example in the successive reviews of the Islands Plan, and in the preparation of the Economic Development Strategy (EDS). From an outsider’s perspective at least, whilst these strategies are clearly articulated, they do suggest a number of basic concerns:

- they are very clearly aspirational, and do not, in the main, give much consideration to implementation or delivery;

- the practicalities of achieving the objectives and aspirations are not assessed (at least in the final published strategies), and it follows that the priorities between objectives are not addressed either;

- preparation of the high-level strategies has not been followed by the preparation of Action Plans which are designed to ensure their implementation and delivery (although this appears to have been intended). Whilst the EDS considers “resource enablers” for infrastructure and service development, in short, medium and long term – these are objectives rather than actions or programmes based.

2.4 Managing a nation from a settlement the size of a village of some 2,500 population is undoubtedly incredibly challenging, and the results have been nonetheless amazingly successful. However perhaps as a result, the focus appears to be on coping with day-to-day management. There is thus little evident comprehensive longer term strategic planning, particularly related to decision making about managing physical changes and determining development priorities. This conclusion clearly echoes views expressed by the Plexus study for Rockhopper, discussed more fully in the next Section. Also, at least from the results of the interviews undertaken in this commission, there is a perception that there have been limited efforts to engage in a wider dialogue with key partners about these matters.

2.5 A key part of the strategic context for these matters ought to be provided by the spatial planning system – the Structure Plan and Town Plan (SP and TP). These strategies have been produced (and in the case of the Town Plan,
subject to one set of subsequent alterations). These are clearly now rather old news (the SP was drafted in 2002 – 3), and indeed were prepared before the other strategies mentioned in para. 2.3. But again some observations about basic concerns, from an outside perspective, may be relevant to the current work to prepare an IDP:

- the SP/TP are based on legislation and a general approach which appear very dated compared with that now being pursued in the different parts of the UK;

- however there is nothing which is necessarily limiting in the legislation – it is how it is used which is more important. There are no recommendations here about the need for changes to regulations, but more practically about how the system is used;

- the existing SP and TP appear to be traditional manuals for development control. In general they give the impression that their primary purpose is to provide the bureaucratic devices to manage (and arguably largely restrict) development proposals;

- in contrast, they exhibit very little sense of the purposes of “spatial planning” (in the current UK parlance); that is, a concern to shape and promote the future form of places, and ensure development decisions are co-ordinated and consistent, in a positive and pro-active manner;

- indeed it is apparent that when key decisions about directions of change need to be made, recourse has not been made to the SP or TP. The EDS and the Rural Development Strategy extraordinarily make not one mention of the SP or TP. The Waterfront Strategy does refer to the TP. However its actions, which arguably should have been at the heart of the TP’s objectives, were not anticipated by the TP. The intention, as with most of the strategies, appears now to be to reflect other decisions in the review of the SP/TP – rather than the SP/TP to help take the lead in directing change.

2.6 Why does this matter? The issue, as mentioned above, is that there has been little long term planning about the direction of change which goes beyond the statement of aspirations. Co-ordinated programmes of action which are practical and feasible – and lead to the delivery of the wider and longer term aspirations – are difficult to detect. Articulation of such programmes is essential if the aspirations are ever to be achieved – and also to decide whether those aspirations are realistic in the first place. The argument here is therefore that the deficit of long term co-ordinated planning needs to be filled at all levels – from establishing broad aspirations through co-ordinated strategies to detailed implementation and delivery plans.

2.7 Developing an IDP – as a focus on making decisions which will shape the future form of Stanley and the Falkland Islands as a whole – is a potentially important route to achieving long term planning. It should provide a necessary and essential precursor to reviewing the wider strategies,
especially the SP and TP. But it in turn needs to be set within the wider context of these articulated strategies – otherwise the purpose of the individual decisions cannot easily be resolved (and the merits of alternatives be compared), and the co-ordination with other decisions may not deliver intended results.

2.8 There is thus an urgent need to review the wider strategic context. It is argued here that there is a substantial requirement for a spatial planning perspective on the future of Stanley – which needs to determine how the potentially very substantial pressures for change will be managed to achieve the sort of place which is desired. This overview will be essential for the delivery and determination of many of the IDP decisions – apart from those which are too urgent to wait. There are as a consequence many references in this report to infrastructure matters which should be addressed within the overall context of the SP/TP review. That review is indeed intended and programmed – but the work is urgent, and it is suggested for the reasons set out here that it needs to be more fundamental than the current intentions (which largely are to concentrate on revising the former documents).

2.9 Where the infrastructure matters considered here relate to fundamental land uses – such as the adequacy of housing or retail facilities – they inevitably raise questions about the future objectives for the town as a whole, which in turn are very much the area of concern of a spatial SP and TP. These matters will therefore be returned to in Section 5, which is concerned with the longer term context, and setting the less immediate and broader reaching decision areas into a wider context.
3. INFRASTRUCTURE REQUIREMENTS OF OIL & GAS DEVELOPMENT

3.1 The challenges of supporting the exploitation of oil and gas reserves will be considerable, not least in terms of coping with pressures on existing, and provision of necessary new, infrastructure. This Section considers the differing likely infrastructure implications.

3.2 Key assessments of likely needs are provided by the report prepared in August 2012 by consultants Plexus for Rockhopper (with whom Premier Oil now have a “farm-in” agreement for the exploitation of the Sea Lion discovery). Discussions during the preparation of this report with a number of parties confirmed that the Plexus assessment still largely provides the best estimates – although there is now some later information on potential laydown and storage area needs contained within the documentation provided by Premier Oil, in seeking expressions of interest for a Temporary Jetty (February 2013). Rockhopper/Premier being the most advanced in terms of progress from discovery to exploitation, the other oil companies consulted have not yet developed their own detailed infrastructure assessments, and in general have indicated that they are content that the Plexus assumptions are likely to be broadly appropriate in their own cases, should they also be able to proceed to exploitation.

3.3 Consultants regeneris are currently engaged in developing high level scenarios to consider the impact of oil and gas, and at least in their initial work also make the same assumption – that the Plexus assessment of the Sea Lion exploitation provides a good “best guess” of the implications of exploiting other finds, and can be used as a modular “rule of thumb” component in working out the implications of multi-field scenarios. There may nonetheless be economies of scale if several fields are operated in parallel, which will be considered below.

3.4 The latest estimated timings to the first production of oil from the Sea Lion discovery, based on information from Premier Oil in early March 2013, are as follows:

- completion of Front End Engineering Design (FEED), plus Environmental and Social Impact Assessment (ESIA), during 1st quarter of 2014, leading to submission of documents for Field Development Approval;
- approval expected during 2nd quarter 2014;
- further exploration offshore end 2014;
- commencement of development offshore around end 2015;
- first oil produced 18 months later on - ie. mid 2017 (with a production life potentially of around 25 years);
scenarios

3.5 The Plexus report considers the implications of the following three scenarios:

1. Sea Lion as currently proposed (2014 start: year 1);
2. Sea Lion plus one other project reaching development in year 5 (2018);
3. Sea Lion plus appraisal drilling in year 2 (ie. 2015).

3.6 However ExCo is concerned that a somewhat broader assessment of potential outcomes should be considered. Consultants *regeneris* are thus working up scenarios that are currently based on the following:

Scenario 0 – no oil & gas (baseline);

Scenario 1a – Sea Lion only (the Plexus/Rockhopper report provides unit factors for all quantification);

Scenario 1b – Sea Lion plus exploration (regarded as the minimum basis for planning);

Scenario 2 – “big oil, no gas”: Sea Lion plus two other equivalents, plus exploration;

Scenario 3 – “big oil and FLNG gas”: as Scenario 2 plus FLNG – floating gas production;

Scenario 4 – “big oil and land based LNG”: as S2 plus large land based gas.

3.7 These scenarios are intended solely to assess the implications of oil and gas exploitation, and “do not factor in additional investments by FIG of the non-oil private sector (for instance in accommodation)”. They do consider the potential impacts of infrastructure investment related to increasing capacity, in matters such as port facilities, water, electricity, housing. However consideration of extra public services or welfare spending (made possible because of oil revenues for example) are regarded as beyond the scope of the study, although it is recognised that these could have profound economic and social consequences. To the extent that the primary changes considered in this preliminary work on an Infrastructure Development Plan are oil related, these scenarios are directly applicable, and will be taken as largely providing the context in this report – and will be discussed further in Section 4 following. However, where longer term land use and infrastructure considerations are addressed (Section 5 below), the scope of the assessment in this report is rather wider. Having said that, the infrastructure and longer term spatial planning matters discussed in this report do not extend to considering the full implications of the above “Scenario 4”: possible large land based gas processing (and any associated port requirements for exporting) – which might need consideration in the longer term, and potentially have a wider geographical impact.
oil exploitation infrastructure requirements

3.8 The FIG ExCo report of 21\textsuperscript{st} November 2012 which led to the commissioning of this work identified the need to quantify land and infrastructure requirements to meet these scenarios, with critical dates of provision, to facilitate:

i. new facilities at the proposed new port at Port William;
ii. laydown, warehousing and specialist plant & equipment;
iii. accommodation – land and type (by niche group);
iv. key public infrastructure – eg. roads, power, water, waste;
v. the implications of the potential relocation of some of Gordon Lines developments to a new location by the proposed new Port William.

Each of these will now be considered in turn.

i. port facilities

3.9 FIG ExCo on 24 October 2012 designated Port William, specifically off Navy Point, north of the Camber, as the location for a new deep water port to serve the Falkland Islands. The operational design requirements of the new deep water port at Port William are currently being assessed in the study being prepared by consultants Arch Henderson, which will cover the practical requirements of oil related users.

3.10 In terms of the volumes of oil related uses, estimates of the requirements for oil related port services in the Plexus report are based on current FIPASS operations. These suggest that the frequency of use would rise from 2 – 3 vessels per week (now – at the end of the appraisal stage) to 6 – 7 per week during the next two years, rising to 10 per week by 2016 (with 2 days duration each berthing), plus a coaster arriving every 3 months – at the height of the development phase. Beyond the development phase, when production is underway, port use would be much less, eg. perhaps in the order of one vessel visit per month. The oil and gas requirements on the new Port William might be assumed to be similar – and need to allow for the respective volumes of traffic for appraisal, development and production, for however many oil and gas fields are eventually brought forward during the life of the new Port. The work of the consultants (Arch Henderson) will need to be consistent with such broad volume of usages, under different scenarios of oil and gas development.

3.11 In terms of the land-side facilities themselves, the deep water port study undertaken by Royal Haskoning (2010) suggested the following general port uses would also be needed:

- replacement port offices;
- canteen & rest area;
- vehicle parking & storage;
- ship repair facilities;
- services: power, water, communications, waste;
- improved port security.

Whilst not quantified as yet, the design specification for the new port will need to ensure appropriate provision is made for each of these uses. The importance of security is stressed by most potential users, with the particular implication that the area serving oil related users must be clearly and securely separated from that serving any other users (although the use of flexible – but secure – boundaries may be possible in practice). The general issues of fuel, power and water are considered under the key public infrastructure heading below.

3.12 The scope for and potential requirements of other potential – non-oil related – users of the deep water port will be considered in Section 4. Depending on the eventual form and extent of the port, provision may also be required for fisheries, wool and meat, general services and fuel users – and potentially even for cruise liners. Similar considerations would also apply to the need for ancillary areas – eg. for bunkering, chilled warehousing and container parks – for non-oil related uses.

**ii. laydown, warehousing and specialist plant & equipment**

3.13 There are a plethora of potential uses under this heading. It covers operations such as:

- onshore storage – for all supplies needed to support the operations of rigs and FPSOs (the Floating Production, Storage and Offloading ships, which will provide the focal points of off-shore production), and their personnel, handling, and spool fabrication – both in open yards and in warehousing;
- transportation (crew changes, local vehicles), security, yard management, trucking & crane hire, communications, servicing of equipment;
- offices – for example for environmental, safety and monitoring consultants, tax advisors and accountants, ships agencies, and freight management.

3.14 Some of these uses might be regarded as relatively footloose, and not necessarily needing (or benefiting from) locations close to the new port. To the extent that is the case, they may add to the likely future pressures to accommodate more economic uses generally within the Stanley area – considered under Section 4.

3.15 Because of the range of uses, precise quantification of the scale of land required for each component will be very difficult – and further clarity about many will not be known until the FEED (Front End Engineering Design) stage is reached, and the Field Development Plan approved by FIG. The IDP response to this must be both to make flexible provision (which can be expanded as necessary, in a planned manner), and to adopt broad ball-park assumptions.
3.16 Such broad assumptions are made in the Plexus report. This, supplemented by additional advice from Rockhopper, provided the following estimates in August 2012:

- open oil development yards: an initial requirement of 5 ha rising to 10 ha;
- warehousing: 0.5 ha rising to 1 ha;
- office space for 30 expat workers;
- service company facilities (yards, offices and warehouses) 2.5 ha.

3.17 As indicated above, the documentation provided by Premier Oil in seeking expressions of interest for a Temporary Jetty (February 2013) provides a further current estimation of potential laydown and storage area needs. This suggests rather higher requirements (converted to hectares to allow comparison with the figures contained in this report):

- storage yards: 2 ha;
- warehousing: 1.5 ha;
- hard standing for spool fabrication: 0.5 ha;
- spool storage area: 5 ha;
- drilling and service companies: 13 ha.

Total 22 ha

3.18 As indicated above, “rule of thumb” estimates based on these figures suggest that allowance might be made for 8 to 14 ha of ancillary land per productive oil field, utilising the August 2012 figures, perhaps rising to 22 ha if the full area suggested in the Temporary Jetty estimates were to be needed – the latter suggesting much larger requirements for service company facilities. These assumptions will be complicated firstly by the stage of operation (exploration/appraisal, development, and production) – which may permit successive uses on the same area. Secondly, there may well be economies of scale, with a number of operators sharing common facilities – particularly perhaps for service company facilities.

3.19 As a comparator, the Byron Mackay yards at Gordon Lines (approximately 3.7 ha), provided exploration equipment storage for a succession of several operators. The Plexus report regarded this as a good starting point, but considered it would need to expand (perhaps double) during the development phase. The Plexus report suggests that development and operational activities would need between 1.5 and 2 times the area for the storage of the materials of appraisal programme.

3.20 In addition to long term support to the oil industry, it will also be necessary in the short term to resolve practical construction requirements, in particular:

- construction compounds: scale and location of areas for materials, batch processing and construction equipment storage etc;
Towards an Infrastructure Delivery Plan

March 2013

- the potential for a temporary living accommodation compound for construction workers. This is an element of the wider accommodation implications of oil development, considered below.

3.21 Provision for space for all these ancillary uses – perhaps in the form of a business park (or parks) related to the proposed new Port William – is clearly one of the early locational decisions which needs to be made, and will be considered further in the next Section. As the Plexus report indicates, the more operators are involved, the more competition for space will become problematical, and timely decisions will be required about land identification and servicing.

iii. accommodation – land and type (by niche group);

3.22 The Plexus report considers that the current housing supply in Stanley is inadequate to meet the needs of any of its oil development related scenarios. It identifies four basic types of need:

- ordinary serviced housing accommodation – for onshore expat workers;
- temporary/hotel type accommodation for part-time or short term consultants;
- camp type accommodation – particularly for construction workers;
- emergency housing – eg. for shift rotations caught by delayed flights.

3.23 The Plexus report recommends that a detailed worker housing strategy needs to be prepared, as more information about development plans becomes available. Given the preference expressed by Rockhopper for integration rather than camps, and commenting that FIG developments at Sapper Hill remain slow, it identifies the need to explore the potential to construct purpose built apartments, and more hotel accommodation.

3.24 Quantification of the scale of housing need is complicated because it depends on the proportions at each stage which are based off- or on-shore. During the development phase now likely to be commencing for the Sea Lion discovery, it is expected that 80% of the workforce will be based offshore, and 20% onshore – which will shift to 70% offshore and 30% onshore during the operation phase. Of those direct onshore workers, 50% are expected to be expats/international (rotating), and 50% local. It is assumed that 25% of the expats will bring families. In number terms, the Sea Lion only option (regeneris scenario 1a) suggests a total of 135 additional people in years 1 – 2, rising to 185 in year 3, then falling to 90 for the remainder of the development period. The regeneris study utilises the Plexus report to derive estimates of workforce changes for each of its scenarios.

3.25 More significantly for this study, the basic building blocks of housing requirements per worked oil discovery are estimated by the Plexus report for the Sea Lion only scenario as:
basic housing need peaking at 25 housing units for the direct workforce, and 20 for the indirect/induced workforce – ie. 45 in total during the development phase, which would reduce to 25 (15 direct, 10 indirect) during production;

temporary onshore (hotel type accommodation): peaking at 26 in year 3, then down to 10 during the production phase.

3.26 Taking the second Plexus scenario, with the addition of development of a second oil field from year 5, it is estimated that the total basic housing need would rise to 83, then reduce to 50, and the temporary accommodation requirement rise to 36, falling to 20. The requirements with an additional field – at a slightly later date – are thus not quite double that for a single field.

3.27 Subsequent information from Rockhopper has identified the more specific estimated requirement of 40 self catered apartments (2 bedroom condominiums with some shared facilities) to be in place by 2015 – which compares with the 45 units identified above. The need is also suggested for an emergency housing capability (eg. for evacuations) for 150 people.

iv. key public infrastructure – eg. roads, power, water, waste

3.28 The Plexus report and additional Rockhopper information identifies some specific requirements, and makes some general comments about the adequacy of supporting public infrastructure and facilities.

3.29 Specific requirements are identified for:

- water supply: needs are estimated at 5000m3 per month, with a maximum daily requirement of 700m3 (about 2.5 times greater than during the exploration phase);
- waste management: an estimated volume of 7500m3 pa will require management during the development phase (also 2.5 times the exploration phase);
- fuel: 3000t/month diesel and 30t/month jet fuel by the end of 2014;
- provision needs to be available at Stanley Airport for 24/7 helicopter facilities (with a permanent not temporary hanger), and for weather forecasting.

3.30 General observations indicate:

- construction aggregates: there will be a need to ensure that there is capacity at the main quarry (Pony’s Pass) to provide for large volumes of construction materials;
- schools – are at or approaching capacity;
• health/emergency facilities – may have some longer term capacity problems;

• the road system: needs adequate funds for maintenance;

• MPA: the terminal (and baggage handling facilities) have been described as less than satisfactory, being at or over capacity – which could exacerbate with more flights.

3.31 All these matters will be considered individually in the next Section.

v. potential relocation of some of the Gordon Lines developments

3.32 The Gordon Lines area currently represents the largest area of employment land in Stanley, and is the location up to the present of most of the oil supporting developments. Currently of the total employment allocation only some 26 hectares are developed, approximately 50% of the total area. Of this only a proportion is directly oil related – for example the Byron Mackay layout yards comprising some 3.7 ha. However, following a number of recent applications, there are now live proposals for warehousing, hardstanding and laydown areas which would commit around half of the remaining undeveloped 26 ha for development. Section 4 following will seek to identify the issues and choices concerning the future of the Gordon Lines area.

3.33 All the estimates in Section 3 must be regarded as provisional. The Plexus report suggests that the implications of future development are unlikely to be dramatically different from past experience (in particular the exploration stage undertaken using the Ocean Guardian), but stresses that assumptions will need to be refined as work proceeds. That report also indicates a clear recommendation that the oil company (Rockhopper/Premier Oil in its case) must take responsibility for ensuring that its needs and the implications of its work must be conveyed to FIG as soon as known.

3.34 Section 4 following considers the locational and other choice implications of these (and any other) requirements, and the timing of necessary decisions.
4. STRATEGIC CHOICES

introduction

4.1 The approach taken in this report is to focus on those discrete infrastructure matters where decisions need to be taken, and almost inevitably, choices exist about a course of action – such as the location of the new port access road, or how (and where) short term oil industry related accommodation should be provided. These are termed, for convenience, “Decision Areas”. Many are inter-related: the decisions in one may well impact on the course of action in others, and vice versa. The sum of choices made on each Area will amount to a strategic package of intentions – and when eventually determined and agreed this will constitute the Infrastructure Development Plan. The choices taken in each area will need to be consistent with the overall approach taken in the IDP – and so the consistency of choices between Decision Areas will also be important.

4.2 Most of the infrastructure decisions have a geographical location – together the decisions in the IDP will help to determine the future shape of Stanley, and thus are key ingredients in its spatial planning. The connection between the IDP and the over-arching spatial strategies of the Structure Plan and the Town Plan have already been mentioned, and will be considered further in the following Section 5.

4.3 As a simply conceptual device, the Decision Areas suggested to comprise the IDP, identified in this Section, are shown on the following Key Diagram. This generalises and abstracts the geography (to avoid being distracted by precise locations and boundaries), and simply shows how the infrastructure issues are related to each other, around the town.

4.4 As previously explained, it is not the intention (or the capability) of this report to resolve the choices here, but to provide an initial definition of the range of decisions which need to be made, and major choices available in each. Further work will be necessary to refine both Decision Areas and choices, in taking forward the preparation of the IDP.

timescales

4.5 An important part of this analysis is to provide an initial view of the timescales in each case – in two respects: the timing of making the decision (eg. is it urgent – or can it or should it wait?), and the timetable for provision of the infrastructure itself.

4.6 The following broad timings are identified in the analysis:

- for decision making: immediate (3 – 4 months); short term: 18 months – 2 years; longer term;
- for implementation: 0 – 3 years; 3 – 5 years; 5 – 10 years; over 10 years.
approach

4.7 To ensure consistency and a comprehensive coverage, for each decision area the same format of analysis is adopted:

- **context**: background and description of the issues;
- **choices**: a broad definition, reflecting in particular the different views expressed through interviews and in the documentation;
- **the impact of different oil development scenarios**: as discussed in the preceding Section 3;
- **timing**: where relevant, the likely implementation date or dates (reflecting in particular the oil scenarios), and in each case, a current view on criticality of the timing of decision making;
- **inter-connections with other decisions** (and their timing);
- **future consideration known to be necessary**: where future deliberations and decisions will influence the choice.

Decision Areas

4.8 There now follows an area by area analysis of all the infrastructure issues identified in this study. In all, 34 Decision Areas have been identified at this stage, which are presented as a full list in attached Appendix C, and shown on the following Key Diagram. Not all possible issues have been included – for example there is no coverage of police and emergency services (other than fire), or telecoms/internet – because these were not considered by respondents or available current research to be critical to current decision making.

4.9 The Decision Areas are organised into the following 6 categories:

A. Port related;

B. Other development issues to north/west of Stanley;

C. Utilities/general infrastructure;

D. Housing;

E. FIPASS, FIPASS2 and Gordon Lines developments;

F. Other land use issues.
Towards an Infrastructure Development Plan: Key Diagram

A. New Port William related developments
1. New deep water port at Port William – users/configuration;
2. Port William – expandability;
3. Longer term deep water port potential in Port William bay;
4. Port William Access Road (with utilities) – alignments;
5. Port William ancillary related uses;
6. Fuel supply – Port William & Stanley;

B. Other development issues to north/west of Stanley
8. Camber (South) Dock
9. Camber (South) Oil Tanks
10. South of Camber access routes
11. Longer term development opportunities: west end Stanley Harbour

C. Utilities/general infrastructure
12. Power Station
13. Water Supply
14. Waste Disposal
15. Fire Station relocation
16. Sewerage/Sewage Disposal
17. School Facilities
18. Medical Facilities
19. Quarry: aggregate capacity

D. Housing
20. General Housing supply (Sapper Hill and elsewhere)
21. Short term accommodation
22. Future spatial direction of housing growth

E. FIPASS, FIPASS2 and Gordon Lines developments
23. FIPASS
24. “FIPASS2” / “FIPASS East”
25. Oil & Gas supporting development at Gordon Lines
26. Fisheries supporting development, including Containerisation, at Gordon Lines
27. Other development at Gordon Lines

F. Other land use issues
28. Commercial development – offices
29. Retail Development
30. Waterfront Development Strategy proposals
31. Helicopter facilities, Stanley Airport
32. Stanley Airport
33. MPA – Stanley Road
34. MPA non-military operational development

Early Decisions Required (2013)
A. new Port William related developments

The following Decision Areas are considered here:

1. New deep water port at Port William – users/configuration;
2. Port William – expandability;
3. longer term deep water port potential in Port William sound;
4. Port William Access Road (with utilities) – alignments;
5. Port William ancillary related uses;
6. Fuel supply – Port William & Stanley;

1. New deep water port at Port William – users/configuration

Context: FIG ExCo have now designated Port William as the location for a new deep water port to serve the Falkland Islands. This is undoubtedly the investment project of greatest significance considered here, representing a new front door to the Islands, and a fundamental asset in relation to the future economic development of the nation. It also has significant implications in terms of meeting aspirations to provide berths for vessels outside Stanley Harbour – which might be discouraged by real or perceived difficulties from entering the Harbour via the Narrows – or which might otherwise be preferred, in the long term, to be restricted to locations outside the immediate vicinity of the town (eg. oil related vessels).

Whilst the decision has now been taken in principle on the location, technical work on feasibility (hydrographic and topographic surveys, swell and weather, environmental impact etc) is continuing. Consultants Arch Henderson have been commissioned to address design options, and this will include the alignment of the necessary new access route to the port (Decision Area 4). Final design solutions are intended to be resolved through the eventual procurement process. Operational matters such as the establishment of a Port Authority are not directly relevant to this study, but two linked areas of choice – or at least of decisions with wider implications – are pertinent. Firstly, under this Decision Area, the range of users to be catered for, which may be influenced by the configuration selected. Secondly, under the next topic, the scope to expand the port – the potential for which may affect the range of functions and users served, and which may thus alter over time.

What are the current policy choices? As currently being designed, the port has the primary purpose of meeting future oil industry needs. However, there are a number of potential users, each of which may have aspirations for use – in the short or longer term. The range of potential users – which design, physical and funding limitations may affect, are:

1. the oil and gas industry – vessels serving the development of offshore oil and gas exploitation, conveying physical materials and servicing personnel working offshore;
2. the fishing industry – potentially refuelling and re-supplying vessels, and landing catches for containerisation and subsequent export. Layover might also be desired. Although much of the industry currently operates offshore, transferring catches and re-supplying via reefer vessels that do not need to dock in the Islands, the balance between this form of operation, and containerisation, may change over time as a result of the practicalities of shipping containers, and fuel availability etc;

3. general service traffic – providing facilities for wool, meat and general commercial traffic to and from the Islands, and including fuel tankers;

4. cruise liners – whilst the preference is likely to remain for these large vessels to moor further out in Port William bay (and convey passengers through the Narrows to Stanley by tender), it may be that some occasional cruise traffic would make use of a deep water port.

The port needs of the oil industry, and general port needs, were identified in Section 3 – although whether the emerging port design solution meets those needs still requires assessment. A summary of the main potential requirements of the other users was provided by the Royal Haskoning study (2010). Some of these have implications for port design, and others (depending on the users’ access to berths), for ancillary onshore developments (see Decision Area 5) for which land provision would need to be made:

**fishing**
- handle containers on quayside and on yard;
- berth space to avoid excessive waiting;
- clean working area – for transferring catch to pallets or reefer containers;
- cold storage and market place;
- lay up berths;
- container yard with reefer points;
- bio-secure storage & container washing (to serve the Falkland Islands and South Georgia);

**wool, meat, commercial**
- handling containers on quay and yard;
- wool warehouse;

**fuel supply (Stanley Services)**
- berth for larger tankers (with approach channel);
- replacement facilities from FIPASS.

Whilst the Royal Haskoning study did not anticipate cruise industry usage (nor is this likely), it is clear that public use (eg. by tourists) would need to be strictly segregated for health and safety reasons, and reflecting the operational needs of other users.

*The impact of different oil scenarios:* clearly, the greater the number of oil or gas fields under development, the greater the oil traffic needing to be serviced by the
port. The capacity of the port to serve the different scenarios of oil and gas exploitation will need to be assessed.

Timescale implications: decisions on the port are clearly of fundamental importance to the whole Infrastructure Delivery Plan – and thus need to be made as soon as possible, clearly within 2013. The earliest possible delivery of Port William, consistent with achieving funding and operating mechanisms, is also clearly crucial – its delivery largely defines the critical path for implementation projects in the next 4 – 5 years. The current target is for Port William to be in operation from the beginning of 2017.

Key linked decision areas: expandability of the port, long term port expansion options, ancillary uses (Decision Areas 2, 3 and 5) – and directly or indirectly most of the other decision areas.

Future consideration: critical early review will need to balance technical feasibility, users’ requirements and aspirations, and resourcing.

2. Port William – expandability

Context: one of the key considerations of designing the new port, in view of the potential conflicting implications of limitations of resources, competing users’ requirements, and changing requirements over time (in particular reflecting whichever oil and gas development scenarios may develop) – is to achieve a design path which allows for its potential physical expansion.

What are the current policy choices? The scope for physical expansion will be largely determined by practical solutions and by the limitations of finance. However, the scope to utilise the expansion which is possible – in terms of preference between users, sequencing and timing – remains to be discussed. The key alternatives would appear to be:

- restrict the expanding port’s capability primarily to oil and gas industry related uses – which means continuing to make provision elsewhere for other aspirant users, in particular the fish industry. This option would ensure that expansion capacity is reserved to provide for the possibility of the higher activity development scenarios;

- allowing full use by other users: including the fishing industry and other general vessels – but perhaps in some sequence of preference as expansion is achieved.

The impact of different oil scenarios: whether or not the expanding port is restricted primarily to oil users, the capability of the expansion to meet the scale of oil and gas development scenario outcomes will need to be assessed.

Timescale implications: any expansion to the port might take place in the medium to long term, eg. 5 – 10 years, or longer. But the need to resolve the needs of other
(potential) port users suggests that the strategic intentions should be resolved much earlier – eg. in the next 18 months – 2 years.

*Key linked decision areas:* Port William users, FIPASS, FIPASS2 and Camber (South) dock (Decision Areas 1, 23, 24 and 8).

*Future consideration:* needs to be resolved at the same time as (or soon after) design solutions are produced for Port William.

3. **longer term deep water port potential in Port William sound**

*Context:* whatever the potential for expansion recognised in the previous Decision Area, current indications suggest that design solutions which allow for expansion will still be relatively limited.

*What are the current policy choices?* The issue here is other potential port solutions, should Port William prove not to provide for all the possible usage. One general alternative would appear to be:

- further port type development in Port William sound, most likely along the northern shore, in the direction from the outflow of Murrell River, north of the location of the proposed Port William. Potential sites have been identified.

*The impact of different oil scenarios:* it is likely to become more pertinent if the greater oil (and gas) development scenarios materialise.

*Timescale implications:* likely need to be resolved in the medium term, eg. 5 – 10 years.

*Key linked decision areas:* rather than further development in Port William sound, the scope for retained or refurbished dock development in Stanley harbour (FIPASS, FIPASS2 and Camber (South) dock (Decision Areas 23, 24 and 8) might be considered.

*Future consideration:* will depend upon the outcome of design solutions, and thus the procurement of Port William itself.

4. **Port William Access Road (with utilities) – alignments**

*Context:* construction of the new port at Port William inevitably requires a new access road to be constructed. It is likely that construction and routing of this road will also need to be accompanied by the provision of basic services (water, sewerage, power, IT etc) – although local solutions might also be considered for these.

*What are the current policy choices?* Consultants Arch Henderson are currently reviewing potential alignments. The key choices are essentially between:
Towards an Infrastructure Delivery Plan

- a northerly route over Wireless Ridge, then easterly alignment, which may improve the access possibilities to land with development potential for port ancillary uses;

- a more easterly route, crossing over Wireless Ridge further to the east than the alternative. This may be a shorter (and thus potentially cheaper) route, but may be more visible from Stanley;

- other design solutions involving routes along the south of the Camber ridge then crossing north to reach the port location are less likely to be favoured, since they will be highly visible from Stanley (and visually intrusive).

The impact of different oil scenarios: either main choice of route should provide for all port access, but it may be that differences in land opened up for development for ancillary uses may be more helpful to the greater oil and gas development scenarios.

Timescale implications: as construction of the port itself, provision of the port access route is a priority – even if temporary construction routes are also employed to haul materials for port construction. Decisions on the alignment are clearly of fundamental importance to the whole Infrastructure Delivery Plan – and thus need to be made as soon as possible, in the next few months – and certainly within 2013. Construction of the access road is expected to be in two stages – the first prepared to an interim condition, to facilitate construction of port and ancillary development, likely to be completed by March 2015, then the second and final stage, preparation of the finished road, to be completed by October 2016.

Key linked decision areas: the location of the ancillary related uses (Decision Area 5) is closely related.

5. Port William ancillary related uses

Context: the range of potential uses for which provision could be made is potentially considerable.

What are the current policy choices? Two key areas of choice exist:

a. the type and quantity of uses, for which provision should be made;

b. the location or locations of provision.

To a large extent (a) the type and quantity of potential uses for which provision needs to be made will in turn be influenced by two key strategic decisions:

i. the types of users of the new port – in the short and the longer term (allowing for possible changes as the port might expand) – see Decision Areas 1 and 2;

ii. the extent to which provision needs to be – or it is determined should be – located in proximity to the new port, as opposed to elsewhere in the Stanley area. Whilst some uses will clearly benefit from close proximity to the port,
others are likely to be more footloose, and could perhaps be located more beneficially elsewhere (eg. within Stanley, potentially closer to where most of the workforce will reside). Partly this decision will also reflect the resolution of the debate about the future of the uses now located at Gordon Lines – see Decision Areas 25, 26, 27).

Choices for (b) the location of ancillary uses will need to be considered, and will be heavily influenced by the alignment of the access road – and the extent to which it opens up relatively flat land for industrial type development, eg. for development in the form of an industrial park (or parks). It will also need to take account of the scope for development immediately adjacent to the new port, or potentially close by, in the form of activities closely associated with the port (eg. port offices or quayside services). These general port activities were listed in Section 3 as including replacement port offices; canteen and rest area; vehicle parking and storage; ship repair facilities; services: power, water, communications, waste; and improved port security. They could also extend to include scope to provide for fishing vessel layup facilities (eg. as currently provided in Montevideo).

The resolution of these choices, and the current (short term) lack of information about site opportunities makes quantification of the issues very complex. Several components can nonetheless be identified:

The scale of provision for oil related developments – and thus the means of responding to the potential impact of different oil scenarios can be assessed using the information on needs summarised in Section 3. Based on the Plexus Study, this would suggest that allowance should be made for between 8 to 14 ha of ancillary land per productive oil field (5 – 10 ha for open oil development yards, 0.5 – 1 ha warehousing, 2.5 ha service company facilities, and office space for 30 expat workers). The Temporary Jetty proposals however suggest that a higher figure of 22 ha might be a safer starting point. These are obviously very rough figures, and allow for substantial growth. But taking the regeneris highest onshore scenario 3, ie. the equivalent of four Sea Lion operations, and simply allowing the maximum for each, would result in a maximum requirement of 56 ha based on Plexus, or 88 ha based on the model of the potential Temporary Jetty supporting facilities. Whilst it is possible that some of these figures are underestimates, the likelihood is that figure would be substantially over-large, given the prospects of joint use of facilities, and general economies of scale – and the probability that not all of the operations would hit the maximum at the same time. Thus working to 56 ha – 88 ha might be viewed as providing a very substantial safety margin. Note that the 56 ha estimate is broadly equivalent to the whole of the Gordon Lines land allocated for development. A linked issue is of course the extent to which some oil supporting development remains at Gordon Lines, thus reducing the requirement for wholly new development near the new port.

If the port is to serve the fishery industry, then as discussed under Decision Area 1 it might be necessary to make provision for a container yard with reefer points, and cold storage and a market place. Similarly, for other commercial uses, space for container storage and warehousing (eg. for wool) might also be necessary. To the extent that these were not accommodated close by the quayside itself, they might be located in a business park type location close by, in conjunction with any oil
supporting development. A further, as yet uncalculated, allowance might be made for these uses, as the use of the port becomes known.

*Timescale implications:* early decisions (within 2013) will need to be made on the general location – or more likely locations - of ancillary uses. The current expectation is that the initial phase of construction would be in the period December 2014 – December 2016. However, considerable uncertainty will remain about the range of uses and their scale – and the key consideration will therefore be to adopt a strategic approach which is flexible, showing the location of short term development together with areas for expansion, and potential phases. If this flexibility is achieved, more clarity could be achieved over the next 18 months – 2 years (as part of the review of the overall land needs in the SP/TP) – which could help to provide a framework for long term decisions (from 5 – 10 years and beyond).

*Key linked decision areas:* Decision Areas 1 and 2 (the new port, and its expansion), and those related to development location within Stanley as a whole, especially connected with Gordon Lines (Decision Areas 25, 26, 27).

6. Fuel supply – Port William & Stanley

*Context:* a key element of infrastructure for the economy as a whole, and for the operation of the port, is the supply of fuel. Stanley Services have the commission to provide fuel in the Islands (its monopoly position is to be reviewed in March 2014). The main storage area for marine etc. fuel is the tank storage in Gordon Lines, served by fuel tanker docking at FIPASS (imported petrol is usually transported by road from Mare Harbour). Supply of fuel to vessels from the Gordon Lines tanks is achieved through FIPASS, and by utilising other vessels supplied from these tanks to provide offshore bunkering (eg. to fishing vessels in Berkeley Sound). Development of Port William requires reconsideration of the location and manner of fuel supply.

*What are the current policy choices?* The main choices appear to be:

1. retain current storage at Gordon Lines (with tanker offloading of marine etc. fuels in Stanley harbour – implying some dock facility, whether FIPASS, FIPASS2 or another) – then transfer necessary fuel to Port William by under harbour pipeline (although some safety concerns have been expressed about this) or by road;

2. create new fuel storage at or near Port William (which could include the Camber storage tanks – see Decision Area 9) – and convey necessary fuel back to Stanley by road (or by under harbour pipeline);

3. a mixture of both options – new facilities at/near Port William, whilst retaining existing facilities at Gordon Lines to serve the wider community. It would also be possible as part of this approach to utilise moveable tanks – capable of relocation if necessary (eg. from FIPASS to Port William), as demand and the operation of the new Port required.
The impact of different oil scenarios: Section 3 indicated the conclusion from the Plexus report that fuel needs for working one Sea Lion scale discovery would amount to 3000t/month diesel and 30t/month jet fuel. In addition to commercial needs, provision for capacity should be allowed for this amount – multiplied to reflect the likely scale of oil scenario.

Timescale implications: planning for the fuel provision accompanying the installation of Port William will require decisions to be made on general locations (if a Port William location for fuel is selected) in the short term – ie. within 2013.

Key linked decision areas: Camber (South) oil tanks.

Future consideration: needs to be resolved as part of the PW design process.

7. Port William and associated developments: temporary construction materials compound, construction access and construction workers’ accommodation

Context: as part of the design process for Port William and its ancillary developments, construction methods will need to be approved. Provision for storage of materials (and potentially batch processing), together with haul routes will need to be made – and also, potentially, for construction workers’ accommodation close to the site. To a large extent the solutions for these will need to be advanced by those responsible ultimately for the construction (in discussion with FIG, and taking account of wider views and environmental considerations).

What are the current policy choices? Whilst as stated above, the chosen deliverer of Port William will have a major input, there is a basic choice between:

1. use of land subsequently intended for Port William related development (eg. the ancillary developments discussed under Decision Area 5) – implying preliminary construction of some of these areas;

2. completely separate locations – requiring subsequent restoration to a satisfactory end state.

In the case of construction workers’ accommodation, there are further choices:

3. location in a separate location more related to the existing Stanley settlement;

4. assimilation of workers’ accommodation in several locations, effectively as part of the overall accommodation strategy (see Decision Areas 20, 21).

The impact of different oil scenarios: expansion of the port – responding for example to a greater scale of oil developments – would require continued construction, and thus the relevance of the choices identified here.

Timescale implications: decisions on these issues are fundamental to the construction process and thus are needed in the short term (ie. clearly within 2013).
Construction of any temporary workers’ accommodation is expected to be in the period September 2014 to September 2015.

*Key linked decision areas:* Decision Area 5 (PW ancillary works) and Decision Areas 20, 21 (housing).

*Future consideration:* the location of the workforce may be best determined within the slightly longer timescale suggested for determining the overall approach to accommodation.
B. Other development issues to the north/west of Stanley

The following Decision Areas are considered here:

8. Camber (South) Dock
9. Camber (South) Oil Tanks
10. South of Camber access routes
11. longer term development opportunities: west end of Stanley Harbour.

8. Camber (South) Dock

Context: The Camber (South) Dock is an unused, semi-derelict facility, but for which interest has been expressed for refurbishment/redevelopment, and for construction/refurbishment of adjacent sheds/warehouses. Concerns have been expressed that the new Port William and its facilities might be visible, and visually intrusive, from Stanley (matters which will need to be addressed in the design of the new port) – a view which has been coupled with the expression of the general desire to keep the south side of the Camber ridge, most prominent from Stanley, in an undeveloped state. However, there are conflicting amenity considerations here: the existence, in a derelict state of the Dock and associated sheds (and indeed the disused oil tanks – Decision Area 9), are already arguably a visual disturbance when viewed from Stanley, and controlled redevelopment might improve the situation. If opened up for development, access to this area – currently with poor track access only – would almost certainly need to be achieved from the new port: see Decision Area 10.

What are the current policy choices? Taking account of currently expressed interests:

1. leave the Dock in its current condition – arguably consistent with a preference to leave the south side of the ridge undeveloped;

2. permit the refurbishment of the Dock, and limited ancillary development, for pleasure yachting;

3. permit the refurbishment of the Dock for fishing vessels and other commercial traffic (eg. for tankers, perhaps associated with the disused oil tanks – Decision Area 9) This may require dredging to permit adequate draft.

The impact of different oil scenarios: not directly related to the scale of oil developments – but the potential competing claims for space at Port William, likely to be resolved in favour of oil development, might make alternative wharfage for fishing vessels more relevant.

Timescale implications: this is not an immediately pressing issue, and could be resolved over the next 18 months – 2 years through the SP/TP review process.

Key linked decision areas: disused oil tanks (Decision Area 9), South of Camber access road (Decision Area 10).
9. Camber (South) Oil Tanks

Context: Two substantial oil tanks are located a short distance to the west of the disused dock. These are disused, and whilst substantial in construction are unlikely to be in a fit state to store fuel as they stand – but views have been expressed that with minor treatment (eg. insertion of liners) might provide a cost effective fuel storage solution in relatively close proximity to the new Port William facilities (and potentially connectable via pipe line through or over the ridge to the new port).

Supply to these tanks might be achieved via tanker berthing at a refurbished Camber (South) Dock (Decision Area 8) – or perhaps from pumping from a berth in the new port, a short distance over the ridge to the north. Road access to the area – if the tanks were to be re-used – would also be important: see Decision Area 10.

What are the current policy choices?

1. leave the facility unused (and thus remain, arguably, as an eyesore);
2. reuse tanks for fuel storage, as part/all of the overall fuel storage solution for the Port and Islands – see Decision Area 6.

The impact of different oil scenarios: greater oil developments would increase the need for fuel, and the pressures for greater use of the port – but are unlikely to be major factor in determining the use of these tanks.

Timescale implications: planning for the fuel provision accompanying the installation of Port William will require decisions to be made on general locations (If a Port William location is selected for fuel storage) in the short term – ie. within 2013.

Key linked decision areas: fuel supply, Camber (South) Dock and Camber (South) access road (Decision Area 6, 8, 10),

Future consideration: needs to be resolved as part of the Port William design process.

10. South of Camber access routes

Context: access to the area south of the Camber containing the disused Dock, the disused oil storage tanks, and one residential property is currently very poor – several hours by car from Stanley, along a track. A new access route would support any use or re-use of these facilities.

What are the current policy choices?

1. leave the area without any improved access, consistent with an approach to limit any further development/redevelopment;
2. support improvements to the track access along the south side of the Camber – from the Moody Brook: likely to be visually intrusive and prohibitively expensive;
3. support taking a new access from the Port William development, over the ridge to the north: this has been suggested to be feasible (and capable of being linked into the Port William access arrangements): subject to detailed physical and environmental assessment.

The impact of different oil scenarios: as with the two previous Decision Areas, not directly related to the scale of oil development, but indirectly supportive as it might be part of providing alternative fuel/dock locations to support Port William.

Timescale implications: this is not an immediately pressing issue, and could be resolved over the next 18 months – 2 years through the SP/TP review process.

Key linked decision areas: Camber (South) disused Oil Tanks, Camber (South) Dock (Decision Areas 8, 9).

11. longer term development opportunities: west end of Stanley Harbour

Context: beyond the more immediate decision areas (1 – 10), there remains the question of further development potential in the general area to the west of the Harbour.

What are the current policy choices?

1. make no further provision - restricting development to those matters considered under the other Decision Areas;

2. identify specific scope for long term development – or directions of growth – given the scope provided by the new access route to the new Port William.

The impact of different oil scenarios: it is assumed that the direct needs of different scales of possible oil development are addressed through the other decision areas – but the indirect implications of a potentially expanding economy and thus need for general space for more housing or employment uses, brings the scope and desirability of further development in this area into question. Development potential would in particular be opened up by the construction of the Port William access road.

Timescale implications: whilst the opportunity provided by the Port William access route offers the potential to identify immediately other development potential, the need and appropriateness of development in this general location cannot properly be determined outside the context of the overall review of the SP/TP (which in turn needs to be set within a wider debate about the future of the Falkland Islands (see Section 5). Thus decisions on this area should be taken within the 18 months – 2 years time frame of the SP/TP review.

Key linked decision areas: all the general land use Decision Areas – in particular general housing, and employment (Decision Areas 20, 27, 28).

Future consideration: arguably needs to be considered in the widest context of the future growth of the economy, and specifically the review of the SP/TP.
C. Utilities/general infrastructure

The following Decision Areas are considered here:

12. Power Station  
13. Water Supply  
14. Waste Disposal  
15. Fire Station relocation  
16. Sewerage/Sewage Disposal  
17. School Facilities  
18. Medical Facilities  
19. Quarrying: aggregate capacity

12. Power Station

*Context:* provision of power to meet all future development needs is a fundamental infrastructure requirement. Although the development of wind turbines now provides Stanley with up to 40% of all requirements, it is currently limited by storage technology. The single oil fired power station remains the critical resource: the ageing power station was originally on the edge of town, but is now surrounded by development, and some concerns have been raised about health and safety (e.g. from fuel spills). However, the proximity of the power station to other public buildings has provided the opportunity for combined heat and power provision for the school and sports centre.

*What are the current policy choices?*

1. continue with the existing power station, investing if possible in its future in its current location – and distributing power to Port William and related new developments via under-Stanley Harbour cables;

2. construct a new power station – one potential location being in proximity to Port William, in which case power would be brought back to Stanley via under-Stanley Harbour cables;

3. construct a new power station in proximity to the new port, but retain the old power station to supplement provision (and provide a security back-up);

4. construct a smaller sub-station towards Port Stanley to deal with the initial requirements, and thus permit the determination of scale, location and funding of the final solution to be resolved in the longer term.

The immediate combined heat and power opportunities in Stanley would be lost if the power station were to be removed from its current location – but there could perhaps be scope for similar combined use benefits at the new port.

*The impact of different oil scenarios:* the scale of power requirement at the new port is not known – and indeed should be researched, but clearly there will be increasing power needs the greater the development in that location.
**Timescale implications:** decisions on the intended solution will need to be made in the short term – during 2013, if the planned delivery of the new port and ancillary development is to be achieved on the target of end of 2016. Implementation will clearly require the availability of funding – which with the target date for operation of the port will need to be in advance of receipt of oil revenues.

**Key linked decision areas:** all the decision areas linked to the delivery of the new port.

**Future consideration:** further work is necessary to establish power needs (and costs) for the new port and related developments. In the longer term, views on the extent of likely growth of Stanley will need to be taken into account in determining the future form of power provision (and the solutions to its expansion, if required by further development).

### 13. Water Supply

**Context:** the adequacy of the water supply is also clearly a fundamentally critical infrastructure matter. Supply is currently taken from Moody Brook, and pumped to tanks above the town. An emergency supply is available at Mary Hill near Stanley Airport. The Plexus/Rockhopper report identified water supply as a critical short term issue. Rockhopper (Section 3) estimated water supply needs for the development phase of the single Sea Lion field at 5000m3 per month, with a maximum daily requirement of 700m3 (about 2.5 times greater than during the exploration phase). To put this in context, the FIPASS facility used 700m3 in 2004, rising to 2300m3 in 2012, which was about 11% of total usage.

**What are the current policy choices?** The solution to future water needs has now been proposed: plans are being developed by the Public Works Department for a new reservoir between Two Sisters mountain and Mount Kent, 9kms to the west of Stanley. This would involve construction of a small barrage across a tributary of the Murrell River, then pumping to join the Moody Brook. The full capacity of the new facility is not yet known.

**The impact of different oil scenarios:** provision of the intended solution is critical, and capacity and functionality of the scheme will need to be tested against requirements of the new port and associated developments, and oil industry requirements using the modular requirement expressed above to test capacity for up to four fields development – consistent with the regeneris scenarios.

**Timescale implications:** the construction period is expected to last 15 months, and work is likely to start in 2013/14.

**Key linked decision areas:** this Decision Area is critical to the achievement of most of the others.

**Future consideration:** as indicated here, testing of capacity in relation to needs will be essential.
14. Waste Disposal

*Context:* most waste (in particular municipal solid waste and commercial waste – totalling some 1,200 tonnes pa at the latest estimate) is currently disposed of by landfill at Eliza Cove, with minimal management, including no recycling. Whilst it is likely that There is a small inert site at the former quarry at Mary Hill on Cape Pembroke, which also has limited capacity. There are no obvious new sites which have been identified (Pony’s Pass Quarry might have potential, but is of course still being worked, and will be the major source of aggregates for the intended new development). All special waste are transported overseas (usually to the UK) for treatment, and most offshore wastes similarly follows the same route. Hospital waste is now disposed of by means of the abattoir incinerator. Clearly the new port, and all its ancillary developments are likely to produce substantially more waste. Information from Rockhopper (see Section 3) concluded that for the single Sea Lion Rockhopper/Premier Oil development, an estimated volume of 7,500m3 pa will require management during the development phase (which will be some 2.5 times greater than the exploration phase). The exact conversion of volume to weight (to allow comparison with Eliza Cove current rates) is not certain, but unlikely to be very different from 1m3 = 1 tonne – which implies that waste arising during the single field development stage could amount to at least 6 years current activity at Eliza Cove.

*What are the current policy choices?* There appears to be a clear expectation that more should and will be treated on the Islands, but no proposals have been advanced to date. The fundamental choice is therefore:

1. continue with the status quo: utilise the reducing current landfill capacity (Eliza Cove is a 2.8 ha site), currently with less than satisfactory environmental controls – and then make provision to expand the site: estimated to provide capacity for perhaps a further 20 years of current Stanley municipal and commercial waste;

2. implement a revised strategy, with investment in new facilities: likely to involve introduction of some basic reception and recycling facilities, storage and capability for transfer of processed reclaimed/recycled materials, and waste treatment - potentially of a heat treatment nature. A new site or sites might be necessary, to replace Eliza Cove – or investment could take place in facilities in an expanded Eliza Cove site.

*The impact of different oil scenarios:* It is not yet possible to relate existing capacity to the likely scale of oil generated wastes, but at the rate of 6 years of current Stanley waste per oil field development phase, capacity will rapidly run out if greater oil scenarios occur – even if the expansion of Eliza Cove for landfill is undertaken.

*Timescale implications:* given the existing situation has continued for some time, and there remains some capacity, there is no immediate need for a rapid decision – but the problems are pending, and need to be resolved within the 18 month – 2 year period.
**Key linked decision areas:** this is a relatively discrete decision area – except if the solution(s) include new locations (e.g. for waste treatment) which might be in proximity to the new port.

**Future consideration:** this is a major area which needs assessment, leading to potentially significant investment.

15. **Fire Station relocation**

**Context:** the current site is in the centre of the town, and is arguably no longer in the optimum location to serve and rapidly access the area.

**What are the current policy choices?**

1. remain in the current location;

2. relocate to a more accessible location – a site has been identified on the bypass, which should ensure rapid access to all areas, including to the new port and ancillary development via its access road.

**The impact of different oil scenarios:** not significantly affected.

**Timescale implications:** dependent on funding, which may need to await oil revenues.

**Key linked decision areas:** a discrete decision area – except for the possibility of expansion of some medical facilities if the current site of the fire station were to become available (see Decision Area 18).

16. **Sewerage/Sewage Disposal**

**Context:**
Since 1997, two key steps have been taken:

- a collection and pumping system has been installed which provides for most of Stanley’s waste to be screened and pumped to outfall at Rookery Bay, south east of the town. However, some discharge (some 12% of past levels) still flows into Stanley harbour;

- new FIG housing schemes (Sapper Hill) are proposed to use package sewage treatment units, and other schemes have been required to utilise treatment methods.

Past volumes have been adequately dealt with by these means. However, whilst the growth impact of a single oil field may be limited – impacts, and capacity constraints, could well be greater with the higher scenarios, and greater still if indirect economic growth impacts are taken into account. Existing arrangements in the longer term might thus require reconsideration.
What are the current policy choices? No additional solutions are understood to be under consideration. Whilst the immediate situation appears to be satisfactory (certainly compared with pre-1997), the capacity and needs for the future may require further design and investment solutions to be investigated.

The impact of different oil scenarios: the scale of additional sewage treatment capacity which might be needed is not known, but needs to be assessed.

Timescale implications: could be considered during the review of the SP/TP, in the 18 months – 2 year period.

Key linked decision areas: linked to the scale of development generally – considered further in Section 5.

17. School Facilities

Context: the Plexus/Rockhopper report indicates that whilst the likely scale of additional demand for school places from oil development related families will be small, there are concerns that the capacity of the schools is being reached. It is known that the Infant/Junior school is already over capacity with temporary classrooms on second site in use – and additional form entry will be necessary if class size limits are to be maintained. The Community School is also constrained in its current location, and parking/drop off problems are known to be problematical (although not considered insoluble).

What are the current policy choices?

1. continue to seek to maximise the potential of the existing buildings;

2. expand onto adjacent land (to the west of the Community School);

3. relocate the Community School to new site – potential opportunities are considered to exist in the near vicinity;

4. relocate the Infant/Junior School, or building a second infant/junior school.

The impact of different oil scenarios: clearly the greater the scale of oil development, the greater the likely additional call on school places. Coupled with general housing pressures, the need to resolve the capacity of the schools will be constantly growing.

Timescale implications: given the wider considerations involved in determining the overall requirements for school places, this will probably need to be addressed through the 18 months – 2 years time frame for the review of the SP/TP. Funding for major new development however may well be oil revenue related – and thus full implementation delayed until the 5 – 10 year period. In that respect it might also need to be considered as part of the debate on the future of the Islands and the use of oil revenues, in terms of the scale and nature of education provision on the Islands (eg. as opposed to elsewhere such as the UK). Interim arrangements might therefore need to be considered.
**Key linked decision areas:** general housing (Decision Area 20).

**Future consideration:** this is an issue which needs to be addressed within the review of the overall future of the Falkland Islands and of the SP/TP in particular.

### 18. Medical Facilities

**Context:** the Plexus report comments on capacity constraints in medical facilities. Whilst not severe or limiting, capacity is being approached in some aspects of medical care. Whilst the benefits of the joint location of primary care and hospital facilities on the same site are held to be very significant, it does mean that the site capacity is a limitation to the expansion of services to meet additional demand. The desire to improve services (eg. with acquisition of new facilities such as a CT scanner) may add further to the congestion on the site. However, unlike the schools situation (see Decision Area 17), there is no suggestion that there is a need (or any future funding possibility) to relocate to a new site.

**What are the current policy choices?** In terms of scope to expand physically in order to provide more services, the choices appear to be:

1. there might be some opportunities to free up space within the existing complex (eg. by relocating sheltered accommodation);

2. the tightly constrained site may be capable of expansion by utilising other adjacent FIG properties – which in turn would require new locations to be found (and new developments funded). It may be possible to expand into the Government’s existing offices housing the Attorney General's Chambers, Secretariat and other administrative personnel;

3. slightly detached from the main site, it might be possible to redevelop the tax office and fire station, 100m to the west (see Decision Area 15).

**The impact of different oil scenarios:** unlikely to be greatly influenced, but pressures on facilities will clearly increase, the greater the scale of oil development.

**Timescale implications:** decisions are not immediate, and could be resolved during the 18 month – 2 year period, with implementation in the period up to 10 years.

**Key linked decision areas:** see also Decision Area 15, for a possible part expansion location.

**Future consideration:** further reviews of medical facilities (eg. to improve services, add capabilities) may impact on capacity assumptions.
19. Quarry: aggregates capacity

Context: as the Plexus and Rockhopper analyses indicate, the availability of basic building materials will be essential to facilitate the intended oil related developments.

What are the current policy choices? In terms of location, there are at the moment few real alternatives to the current Pony's Pass Quarry for bulk aggregates – although there may be some sources elsewhere for bulk or specialist minerals, which will need to be considered as a matter of urgency. The potential use and location of borrow pits (to secure building materials on or adjacent to construction) associated with the port and its ancillary development will need to be carefully assessed to minimise environmental intrusion. The prospects and relevance of renewed working at Mary Hill has been mentioned but does not appear to be supported. Pony's Pass does however appear to have substantial capacity. In terms of methods of operation, views have been expressed concerning the distorting effect of the Government monopoly, and suggesting that the involvement of the private sector in working and supplying minerals may offer cost effective alternatives.

The impact of different oil scenarios: development of the port and access road, and the potentially increasing substantial areas of development (including hardstanding) implied by the differing scales of oil development scenarios, will require a substantial increase in production of materials. The interim “FIPASS2/FIPASS East” port proposals (Decision Area 29) and associated developments will also require aggregates.

Timescale implications: reassurance on capacity in Pony’s Pass – both of the materials (and their adequacy), and the capacity to work increased volumes – will need to be achieved in the short term period to the end of 2013. If necessary to supplement Pony’s Pass resources and capacity, early consideration of additional sources will also be important.

Key linked decision areas: all the port related decision areas.
D. Housing

The following Decision Areas are considered here:

20. General housing supply (Sapper Hill and elsewhere)
21. Short term accommodation
22. Future spatial direction of housing growth

20. General housing supply (Sapper Hill and elsewhere)

Context: as Section 3 indicated, concerns were expressed in the Plexus report about the capacity of existing or planned new housing to cope with the additional demands from oil industry personnel. This Decision Area considers general accommodation – both providing for changes in the general population and for oil related calls for permanent accommodation. Short term accommodation needs, in particular relating to oil industry requirements, are addressed in Decision Area 21, following.

Based on previous census figures (and likely to be little changed following the latest census), the adopted Structure Plan/Town Plan makes an assumption that provision needs to be made for around 20 dwellings pa. A number of small allocations were made in the Town Plan, and a few infill plots have planning permission. However, the major solution to future housing needs is currently being made in the building out of the Sapper Hill development, at about 20 houses per year. This site has capacity for some 300 houses, with 120 to be serviced initially. The first two phases provide for 60 plots, some intended for FIG use, and some to be made available for first time buyers under the subsidisation scheme. In addition, the Falklands Islands Company has permission for in excess of 400 dwellings – but there are suggestions that these are not proving viable to develop, in competition with FIG subsidised housing.

Section 3 indicated that the Plexus analysis of basic housing needs related to the Sea Lion discovery would peak at 25 housing units for the direct workforce, and 20 for the indirect/induced workforce – ie. 45 in total during the development phase, which would reduce to 25 (15 direct, 10 indirect) during production. Assuming that these units could form part of the general stock, then the implication is that broadly 45 additional units would be required for each oil field discovery – or in terms of the regeneris overview, a maximum of some 180 additional units if the four discoveries in scenario 3 were to be worked out together – or rather less if the Plexus assumptions in its scenario 2 are taken. In the same terms, Rockhopper indicated that initial provision of 40 units (in the form of 2 bedroom condominium type units) would be needed to provide for the development phase of the Sea Lion discovery, which should be in place by 2015.

What are the current unresolved policy choices? Choices exist in terms of the approach to housing provision (eg. the approach towards housing subsidy), and in theory in its scale, type and location – but much of the decisions about these have at least for the time being been resolved through the single solution of the Sapper Hill development. The issue of housing subsidies will not be addressed here, but a number of commentators criticised the distorting effect in the current market, with the
implication that provision was not being made as efficiently as might be achieved if the private sector was more involved in bringing forward houses.

In terms of scale, the capacity available on Sapper Hill, together with other smaller sites, should be capable of meeting local population needs for at least 10 years, together with most of the oil related additional demand. Whether or not all the additional provision should continue to be made in this single location does suggest the following basic policy choice:

1. continue to base the vast majority of housing provision – for both general population and oil related demand – at the single Sapper Hill location, building this out in serviced phases;

2. attempt to provide for housing – and potentially for a wider range of types of housing – more widely throughout the Stanley area.

In effect, the current position is that there is far more potential supply identified than likely need (particularly if other sites with permission are taken into account). It may be that a revision of the approach to the location of housing – choice 2 above – would permit other objectives to be achieved – eg. a closer more sustainable relationship between homes and facilities, coupled with a review of densities and design policies.

The impact of different oil scenarios: taking the larger scenarios, the need to provide for perhaps approaching 180 additional units may challenge even the capacity of the single main solution of Sapper Hill – but the need will not be immediate.

Timescale implications: some early decisions may be necessary to meet immediate housing needs for expat oil industry personnel – but the identified need for 40 units should be capable of resolution on known sites without requiring a detailed review of strategies. The choice in terms of location (and indeed the extent to which the private sector might be more involved in delivery) are matters which could be better addressed through a review of the overall spatial strategy during the next 18 months – 2 years, in the revision of the SP/TP. In these terms, choices relating to longer term housing provision and its location are considered in Decision Area 22.

Key linked decision areas: short term accommodation, future spatial direction of housing (Decision Areas 21, 22).

Future consideration: this whole area of general housing provision raises fundamental issues about the planning of Stanley, but it also relates closely to any wider debate about the scale of change in the Falkland Islands, which is considered further in Section 5. As part of this, the Plexus report argues that a housing needs strategy should be developed, with contributions from the oil and non-oil sectors.
21. Short term Accommodation

**Context:** under this heading are three elements of need relating to the oil industry and Port William developments:
- temporary onshore accommodation of a hotel type;
- short term hostel or self catered accommodation – eg. a mobile home park;
- the potential need for a separate construction workers’ camp.

**What are the current policy choices?**

In terms of hotel type accommodation, the major extension planned to the Malvina House Hotel will add 38 bedrooms to the existing provision of approximately 50 rooms. Beyond this provision, the undoubted additional demand from oil and other sources (eg. tourism) would probably be best addressed under the progression of the Tourism Strategy, and in particular the focus on the Waterfront Strategy: see Decision Area 30, which include other hotel proposals.

In terms of short term self catered or hostel type accommodation, there is currently a proposal being developed for a second mobile home park adjacent to the existing development (Murray Heights, south of Bypass Road), which could provide some 25 – 30 pitches. Together with the existing around 50 beds in hostel accommodation this would provide scope for a significant proportion of transient workers. The adequacy of this provision however is not clear, and needs further work. The basic choices are:

1. rely on current and planned (adjacent to Murray Heights) developments.

2. seek to identify site(s) and bring forward additional short term accommodation elsewhere.

Part of this solution might relate to choices relating to the possible need for a construction workers’ camp, which will need to be determined in conjunction with the eventually selected deliverer of these proposals:

1. make provision for a construction workers’ camp in a location closely related to the construction sites of Port William and its ancillary development. If this is required, construction would be expected to be in the period September 2014 to September 2015. This could include provision on ships – an approach used elsewhere (including for construction of MPA);

2. make additional site or sites available for a construction workers’ camp, closer to Stanley – with the potential that after use of the site might also provide for the longer term construction needs relating to oil production.

The need identified by Rockhopper for an emergency housing capability (eg. for evacuations) for 150 people does not appear to have an immediate solution identified: this may well be something which should be addressed in the short term, involving both FIG and Premier Oil (the latter potentially having the first need).
The impact of different oil scenarios: for hotel type accommodation, the requirements assessed in the Plexus analysis (a peak requirement of 26 units for the Sea Lion discovery, rising to 36 for the second, additional oil field option) would be largely provided for by the current hotel expansion plans – and perhaps subsequently by other hotel proposals in the Waterfront Strategy. Provision for other short term accommodation exists, but its adequacy in relation to requirements will need to be considered – hopefully by the housing needs analysis suggested by the Plexus study.

Timescale implications: as indicated here, a significant part of the early provision required is likely to be in place. Other decisions will need to be taken in conjunction with the practical construction solutions for the Port William and ancillary work, during 2013, and decisions on longer term future provision can be taken in the context of the review of the SP/TP over the next 18 months – 2 years.

Key linked decision areas: general housing accommodation, future spatial direction of housing (Decision Areas 20, 22).

22. Future spatial direction of housing growth

Context: the discussion under the two preceding Decision Areas addressed the immediate issues concerning housing supply. But in the longer term – taking account of the construction of the new port and its ancillary development, and the potential for other changes to the economy as oil exploitation progresses, a wider set of issues opens up in terms of the future spatial planning of Stanley. This was also raised previously in the context of the suggestion that the access route to the new port could open up new opportunities – which might even extend to the location of new housing. Housing near the new port in itself might not be viewed as sustainable, being detached from the main services of Stanley – but other arguments, including scope to develop a new hub, with its own facilities, might be advanced in support. In any case, arguably the introduction of the new port could be seen as a major opportunity, if not need, to rethink the future spatial growth of the town.

What are the current policy choices? It is recommended that such issues are more properly considered in terms of a wider consideration of the spatial planning of the town, but essentially the choices are:

1. retain the focus for most new housing development on Sapper Hill – beyond the immediate 5 – 10 years into the long term;

2. rethink the directions of housing growth in Stanley, taking account of the new opportunities provided by Port William and its access, and its new role as a major location for employment. This might suggest, to take account of the emerging new axis of development, reconsidering opportunities that might exist for housing development more closely related to the waterside on the south side of the Harbour, along Ross Road West/Moody Brook Road – and at some point perhaps closer to the port and its development.
Pursuing the second approach might mean retaining a significant proportion of the undeveloped land at Sapper Hill as a long term reserve, but concluding development (for the time being) at the current (or following identified) phases. In that context, the proposed longer term route down from Sapper Hill to reach the Harbour shore might be resolved earlier rather than later – and might enable the Sapper Hill development to relate more closely to an orientation of growth towards the new port and the associated locations of employment.

*The impact of different oil scenarios:* the greater the oil derived change – the greater the opportunity for more radical directions and volumes of new development in planning the future expansion of the town.

*Timescale implications:* these are not matters which require immediate decision, but are properly issues to address in the review of the SP/TP during the next 18 months – 2 years.

*Key linked decision areas:* general housing, and the decision areas relating to the overall spatial planning of the town’s commercial, employment, retail and waterfront areas (Decision Areas 20, 28, 29, 30).

*Future consideration:* the wider, longer term planning of the infrastructure and development of Stanley is considered further in Section 5.
E. FIPASS, FIPASS2 and Gordon Lines developments

The following Decision Areas are considered here:

23. FIPASS
24. “FIPASS2”/ “FIPASS East”
25. Oil & Gas supporting development at Gordon Lines
26. Fisheries supporting development, including containerisation, at Gordon Lines
27. Other development at Gordon Lines

23. FIPASS

*Context:* the state of the FIPASS (Floating Interim Port and Storage System), and its resultant likely limited capabilities and remaining life span have been assessed, and FIG have now determined that minor remedial measures only should be instigated, given the decision to proceed with the new deep water Port William. Some additional improvements might be envisaged, if funded by the oil industry, to serve limited additional oil related use.

*What are the current policy choices?* The only remaining choices concern:

1. how long will use of the facilities be capable of being entertained?
2. what use, in its remaining life, will be acceptable – eg. fisheries and commercial, but not, given FIG’s stated intentions regarding FIPASS2 and Port William, continued use by oil related vessels post 2016 (ie. the intended availability of Port William).

*The impact of different oil scenarios:* The scale of oil developments will have little significance to the limited future role of the facility.

*Timescale implications:* The decision on the future of FIPASS has now been taken, and the issues about continued use are likely to be resolved imminently.

*Key linked decision areas:* Port William, FIPASS2 (Decision Areas 1, 24).

*Future consideration:* further knowledge of the capacity and life of the facilities will presumably be achieved when the minor remedial works are undertaken.

24. “FIPASS2”/FIPASS East

*Context:* given the limitations in loading and lifespan of FIPASS, the lack of availability yet of a new deep water port, but the intent to progress development (and exploration) of oil reserves as soon as possible, the interim solution now being advanced is another temporary dock structure – which has variously been described as “FIPASS2” or “FIPASS East”. A location west of FIPASS has been considered and rejected, and an eastern location has now been provisionally determined as suitable. Premier Oil have now sought expressions of interest, for completion of the
facility before the end of 2014. The scale of the proposed dock is believed to be slightly larger than FIPASS – around 400m berthing length compared with 300m. Given the importance of the new Port William, and the intent to exclude oil related vessels from Stanley when possible, FIG have indicated that the use of FIPASS2 for oil related vessels should cease by the end of 2017 (the target being for Port William to be in operation from the beginning of 2017).

What are the current policy choices? The choices relate to the future of the facility from the beginning of 2018:

1. remove the facility from the Falkland Islands;
2. relocate the dock elsewhere, in particular to a location in proximity to the new Port William dock, where it can supplement Port William capacity;
3. retain the dock in its existing location, and allow use – if not for oil related uses (following FIG’s decision), then potentially for fisheries or other commercial operations.

The impact of different oil scenarios: the greater the oil operations, the more likely additional capacity will be required. Depending on the capacity and expandability of the Port William facilities (Decision Areas 1 and 2), and also the potential for use of other facilities (eg. Camber (South) Dock (Decision Area 8), it may be more relevant to consider supporting the retention of the facility in the Falkland Islands.

Timescale implications: the key timescale considerations, in view of the aspirations of the oil companies to proceed as quickly as possible (and similarly revenues to be available as soon as possible) – is to resolve practical and approval matters as soon as possible. The timescale of operation for oil related uses is intended to be strictly related to the period to end of 2017. Any discussion on the facility’s possible longer term future can be resolved over the longer term up to that date.

Key linked decision areas: FIPASS, Port William users/configuration and expandability, Camber (South) dock (Decision Areas 23, 1, 2, 8).

Future consideration: use may be influenced by the ongoing debate about the scale of different port users’ requirements, and potential solutions.

25. Oil & Gas supporting development at Gordon Lines

Context: the locations of FIPASS and FIPASS2 are adjacent, and operationally linked, to the existing industrial/commercial area of Gordon Lines. The future of this area is considered in this and the successive two Decision Areas. Many important support functions for the oil industry are well established here – and facilities represent considerable private and public investment. One key consideration is that if future activities take place at Gordon Lines which are linked to Port William (and if neither FIPASS nor FIPASS2 are available in the longer term), then road connections to the new port will be critical. It has been suggested that the quality of the road connections to Port William (around Gordon Lines and Stanley Bypass in
particular) may be limiting factors which will preclude transporting heavy items (e.g., oil industry components) – unless major improvement investment takes place. It is also important to recognise that the future viability of the new Port will also be influenced by the scope to locate and control ancillary uses within its area of operation.

**What are the current policy choices?** Currently expressed choices include (but variations no doubt exist):

1. Let the market determine its preferences for oil-related development in either Gordon Lines or the Port William area;

2. Restrict new oil-related development to the Port William area, when scope (and the new port facility) exists;

3. Allow no further expansion at Gordon Lines, and actively encourage relocation of all current activities to the Port William area. The future rationalisation of land, together with possible alternative land uses, would then need to be considered.

**The impact of different oil scenarios:** whilst there would be scope to locate most of the oil-related support functions in this area – whatever the oil development scenario (Section 3), there is a clear FIG decision to preclude support for oil-related vessels from Stanley harbour once Port William is available (intended to be end of 2016).

**Timescale implications:** in the period up to 2017, when Port William is intended to be in operation, oil operations will inevitably need to continue to be supported here (linked to the FIPASS and FIPASS2 decisions) – although past investment may provide for some of these needs. However, when the Port William access road is completed (currently planned for the end of 2014) it may be possible for some development to take place in areas associated with the road. If flexible provision is made associated with Port William, resolution of the future approach towards Gordon Lines could be made in the review of the SP/TP (i.e., in the short term period of the next 18 months – 2 years) – which would need to evaluate the above broad alternatives (and any others), together with other detailed matters. However, whilst delivery of the access road may suggest that these decisions could be deferred for a couple of years, there is a clear and urgent need to resolve immediate investment decisions (current planning applications, and the potential for laydown areas associated with FIPASS2: see para. 3.17). Early resolution of the future of Gordon Lines – or at least an approach to determining or deferring consideration of current planning applications – is thus in fact essential.

**Key linked decision areas:** Port William associated development, the future of FIPASS2 (Decision Areas 5, 24).

**Future consideration:** given the scale of investment relating to oil which has been made – and will need to be made in the future, relating to oil and fisheries in particular, this will be one of the key areas for consideration of the views of the oil-related sectors, including analysis for the scope, desirability and practicalities of
transferring operations to Port William. Depending on the outcome, the SP/TP process may need to consider future objectives for this area.

26. Fisheries supporting development, including containerisation, at Gordon Lines

Context: many important support functions for the fishing industry, including containerisation, are well established here – and facilities represent considerable private and public investment. One key consideration, as with the oil related investments, is that if future activities take place at Gordon Lines which are linked to Port William (and if neither FIPASS nor FIPASS2 are available in the longer term), then road connections to the new port will be critical. It has been suggested that the quality of the road connections to Port William (around Gordon Lines and Stanley Bypass in particular) may be limiting factors which will preclude transporting heavy items – unless major improvement investment takes place.

What are the current policy choices? To some extent the issues here replicate those relating to oil development support at Gordon Lines – but there are some differences. Currently expressed choices include (but variations no doubt exist):

1. let the market determine its preferences for fisheries related development in either Gordon Lines or the Port William area;

2. restrict new fishing/containerisation activities to the Port William area, when scope (and the new port facility) exists;

3. allow no further fisheries related expansion at Gordon Lines, and actively encourage relocation of all current activities to the Port William area. The future rationalisation of land, together with possible alternative land uses, would then need to be considered;

4. if the fishing industry will not be capable of being supported in the short to medium term by Port William and associated development, accept continued fishing industry use of FIPASS (and arguably FIPASS2 in the longer term: Decision Area 24), which may well mean that continued support should be given to fishing related developments at Gordon Lines.

The impact of different oil scenarios: the impact on the fishing industry is likely to be greater competition for port related facilities, the greater the scale of oil operations.

Timescale implications: in the period up to 2017, when Port William is intended to be in operation, fisheries related operations will inevitably need to continue to be supported here (linked to the FIPASS and FIPASS2 decisions) – although given past investment this appears unlikely to require any significant new development. However, when the Port William access road is completed (currently planned for the end of 2014) it may be possible for some development to take place in areas associated with the road. The impact of decisions on fisheries related developments at Gordon Lines is thus possible to be in the period 3 – 5 years, but more likely in 5 – 10 years. However, pressing investment decisions at Gordon
Lines related to fisheries supporting developments may make early resolution of its future desirable. But if flexible provision is made associated with Port William, resolution of the future approach towards Gordon Lines could be made in the review of the SP/TP (ie. in the short term period of the next 18 months – 2 years) – which would need to evaluate the above broad alternatives (and any others), together with other detailed matters.

*Key linked decision areas:* Port William associated development, the future of FIPASS2, Gordon Lines oil and other developments (Decision Areas 5, 24, 25, 27).

*Future consideration:* given the scale of investment which has been made – and will need to be made in the future, relating to fisheries in particular, this will be one of the key areas for consideration of the views of the fishing/containerisation sectors, including analysis for the scope, desirability and practicalities of transferring operations to Port William. Depending on the outcome, the SP/TP process may need to consider future objectives for this area.

### 27. Other employment development at Gordon Lines

*Context:* whilst future major provision for employment development is envisaged in association with (and near to) the new Port William, the major existing – and likely continuing long term – concentration of employment uses is in the Gordon Lines area. Currently only 50% of the allocated area is developed: of the total area of 54.2 hectares, 26 ha is developed, 2.85 ha is committed to developments in the pipeline, and a substantial area of 25.3 ha is currently identified with the potential for future development. However, around half of the undeveloped 26 ha is now subject of proposals – for warehousing, hardstanding and laydown areas. What should be the long term role of this area?

As with oil and fisheries Gordon Lines issues, if the operations in this area are to be linked to the new Port William, the quality of the road links between Gordon Lines and Port William may be an issue.

*What are the current policy choices?* Currently expressed choices include (but variations no doubt exist):

1. let the market determine its preferences for development in either Gordon Lines or the Port William area;

2. support further limited expansion of the Gordon Lines area – seeking to direct most development to Port William;

3. seek to concentrate all new employment development (of whatever type) in the Port William area – thus effectively placing a moratorium on future expansion at Gordon Lines. Over the longer term, rationalisation of land uses might be possible;

4. allow no further expansion at Gordon Lines, and actively encourage relocation of all current activities to the Port William area. The future rationalisation of
land, together with possible alternative land uses, would then need to be considered.

*The impact of different oil scenarios*: whilst the direct oil related industries are covered under Decision Area 25, many of the other operations may be indirectly related to support for the oil industry – and in any case will be influenced by the likely general economic expansion which will follow from oil development.

*Timescale implications*: when the Port William access road is completed (currently planned for the end of 2014) it may be possible for some development to take place in areas associated with the road. The impact of decisions at Gordon Lines is thus possible to be in the period 3 – 5 years, but more likely in 5 – 10 years. However, as with the previous two Decision Areas, any pressing investment decisions at Gordon Lines may make early resolution of its future desirable. But if flexible provision is made associated with Port William, resolution of the future approach towards Gordon Lines could be made in the review of the SP/TP (ie. in the short term period of the next 18 months – 2 years) – which would need to evaluate the above broad alternatives (and any others), together with other detailed matters.

*Key linked decision areas*: Port William associated development, the future of FIPASS2, Gordon Lines oil and fishing developments (Decision Areas 5, 24, 25, 26).

*Future consideration*: The SP/TP process may need to consider future objectives for this area.
F. Other land use issues

The following Decision Areas are considered here:

28. Commercial development – offices
29. Retail development
30. Waterfront Development Strategy proposals
31. Helicopter facilities, Stanley Airport
32. Stanley Airport
33. MPA – Stanley Road
34. MPA non-military operational development

28. Commercial development – offices

*Context:* The Plexus report identifies the scope and need for office developments in association with the development and production of oil and gas. Whilst the specific requirement for office space associated with the oil development layout areas are likely to be actually on those sites (and thus close to the new port), there are many other supporting office uses – direct or indirectly linked to oil and gas development – which will be footloose. Indeed many services, such as law, accountancy and tax, as well as specialist technical consultants, are more likely to wish to locate close to central Stanley facilities. To the extent, potentially significant, that the economy as a whole expands as a result of the oil development (and the potential injection of some oil revenues), there may well be a substantial growth in demand for purpose built or speculative office developments. What provision should be made for these uses?

At present there is no major concentration of office developments in Stanley, but a number of small pockets. There is no concentrated commercial core. There are however plans, through the Waterfront Strategy, for a more focused approach to developments, including commercial operations, in key locations (and in areas less intensively developed, or with beneficial scope for development).

*What are the current policy choices?* The basic choice is between:

1. continuing a dispersed, market-led approach to office type developments;
2. adopting a more selective, directed approach to promoting key locations – for example near the Stanley Harbour-side locations identified in the Waterfront Strategy, or related to other central commercial operations, or in accessible peripheral locations such as on the Bypass (perhaps continuing existing office developments in this location).

There will be advantages and disadvantages of differing locations, which would beneficially be addressed within the review of the spatial planning of the town to be undertaken in the SP/TP review. The sustainability of each location – particularly in terms of ease of access of its workforce to homes – will be relevant, as will the environmental opportunities or costs that would result from such development.
The impact of different oil scenarios: even allowing for economies of scale, the greatest oil scenarios are likely to inject a significant quantity of demand for new office space, in the Stanley context.

Timescale implications: these are not matters which require immediate decision, but are properly issues to address in the review of the SP/TP during the next 18 months – 2 years.

Key linked decision areas: other decision areas relating to the overall spatial planning of the town’s general housing, retail and waterfront areas (Decision Areas 20, 22, 29, 30).

Future consideration: the wider, longer term planning of the infrastructure and development of Stanley is considered further in Section 5.

29. Retail Development

Context: consideration of need and demand for additional retail development is similar to that of office developments, considered under the previous Decision Area 28. A greater population, both long term and transient – even if only on the modest levels projected from the Plexus report – is likely to cause demand for more retail development. Consideration of new locations of growth, especially housing, may similarly suggest the need to secure provision of services which is more locally accessible to the distribution of the future population.

What are the current policy choices? Essentially the choice is between:

1. continuing the dispersed and largely market-led provision of retail facilities;

2. adopting a plan led approach, directing new provision to locations with high accessibility or where a (potentially new) local need is apparent.

The impact of different oil scenarios: again, the greater the scale, the more significant the effects, both direct and indirect through multiplier effects, on local demand for retail facilities.

Timescale implications: these are not matters which require immediate decision, but are properly issues to address in the review of the SP/TP during the next 18 months – 2 years.

Key linked decision areas: other decision areas relating to the overall spatial planning of the town’s general housing, offices and waterfront areas (Decision Areas 20, 22, 28, 30).

Future consideration: the wider, longer term planning of the infrastructure and development of Stanley is considered further in Section 5.
30. Waterfront Development Strategy proposals

*Context:* implementation of the Waterfront Development Strategy is related to a number of aspirations and decision areas. Whilst the focus is particularly on delivering improvements which will impact on the tourist industry, the achievement of additional hotel and temporary accommodation will be significant in terms of meeting the short term accommodation needs of oil development: see Decision Area 21. However, relating to the commercial heart (or at least key locations) of the town, the identified strategy areas may also offer opportunities to provide for other commercial (including office) developments directly or more likely indirectly linked to the support for oil development. Similarly there is scope in these locations to provide supporting retail and entertainment developments.

*What are the current policy choices?* The preferred strategy (option 2 in the Waterfront Development Strategy) has now been selected – this provides a framework for the development and consideration (and funding) of detailed proposals.

*The impact of different oil scenarios:* greater oil scenarios will mean greater needs for accommodation – and potentially greater economic activity which will make the implementation of the strategy even more relevant.

*Timescale implications:* development and implementation of the Waterfront Strategy should now be ongoing, although it is limited by funding in some cases. The connection between the Strategy and the wider spatial planning of the town is properly an issue to address in the review of the SP/TP during the next 18 months – 2 years.

*Key linked decision areas:* short term housing, commercial and retail developments (Decision areas 21, 28, 29).

*Future consideration:* the wider, longer term planning of the infrastructure and development of Stanley is considered further in Section 5.

31. Helicopter facilities, Stanley Airport

*Context:* Stanley Airport provides a base for helicopters, used primarily to support oil and gas operations. Supply and Search & Rescue helicopter support is essential for oil operations at each of the stages from appraisal to production.

*What are the current policy choices?* The decision has now been taken to provide for the upgrading of facilities for helicopters: provision will be made for a further 2, making capacity for 4 in total, with new and upgraded hanger provision, upgraded passenger facilities, and new taxi and flight aprons, with associated support works.

*The impact of different oil scenarios:* clearly the greater the scale of oil developments, the greater the call on helicopter services. However, this is an area where economies of scale have been suggested: different companies clearly have been, and would continue to be, prepared to share facilities.
Timescale implications: the proposed construction period is from February 2014 to December 2014, with the facilities thus available from the beginning of 2016.

Key linked decision areas: improvements to facilities at Stanley Airport (Decision Area 32) would be likely also to impact on the quality of those available for helicopters.

32. Stanley Airport

Context: Stanley Airport currently provides the base for inter-island flights (FIGAS), together with a base for helicopters (Decision Area 31). The potential for longer distance flights is constrained by the length and quality of the runway, and airport facilities (eg. navigation equipment).

What are the current policy choices?

1. retain the purpose of Stanley Airport as solely for internal flights;

2. expand the potential of the airport by investing in runway improvements and necessary airport facilities, with a view to being able to accommodate short haul/medium distance flights – eg. to South America.

The impact of different oil scenarios: the potential of the airport to accommodate longer distance flights might support greater oil developments (eg. providing access to supplies in South America, and alternative access routes to the Falkland Islands) – although the Airport is largely not considered directly relevant by the oil industry (apart from with regard to helicopters).

Timescale implications: this is potentially a longer term decision, without immediate drivers. It might need to await funding from oil revenues, and thus could be in the 5 – 10 year period.

Key linked decision areas: the Tourism Strategy and the Waterfront Development Strategy, Stanley Airport helicopters and MPA facilities (Decision Areas 30, 31, 34).

Future consideration: this will no doubt need consideration as part of the wider view of the future of the Falkland Islands, and its tourism strategy.

33. MPA – Stanley Road

Context: the part unpaved nature of this road is widely regarded as a major concern, both in terms of health and safety, and the ability to maintain use in all conditions.
What are the current policy choices?

1. To continue to regard upgrading the MPA – Stanley Road as a longer term priority (indeed a lower priority than maintaining/upgrading roads in the rest of Camp);
2. To upgrade the route (ie. provide with a complete hard surface, and necessary safety barriers etc) – at a substantial cost (perhaps £40 - £50m?)

The impact of different oil scenarios:
Whilst the state of this road is regarded as a concern by the oil companies, it is apparently not regarded as critical to their operations. However, the greater the scale of oil development, the greater the likely use and thus concerns about its conditions.

Timescale implications:
Not a critical early decision – but potential for medium/long term resolution as funding might permit – and clearly could represent a very substantial investment, and indeed for that reason almost certainly need to await arrival of oil revenues.

Key linked decision areas:
Waterfront Development Strategy/Tourism strategy, MPA non-military operational development (Decision Areas 30, 34).

Future consideration:
Part of the debate around longer term investment priorities of the Falkland Islands.

34. MPA non-military operational development

Context: concerns have been widely expressed about the adequacy of the MPA terminal and baggage handling facilities – and not just by oil companies.

What are the current policy choices?

1. Continue to accept military operation of MPA ground facilities, and the constraints which may result;
2. FIG/FIDC to reach agreement to operate either/both terminal & baggage handling – with the scope to invest to achieve improvements in capacity in both. Indeed, discussions on this are currently in hand.

The impact of different oil scenarios:
Clearly the greater the scale of the oil developments, the greater the pressure for additional flights – from this sector alone.

Timescale implications:
Not a critical early decision – but the potential for medium/long term resolution as funding might permit.

Key linked decision areas:
Tourism development, MPA – Stanley Road improvements (Decision Areas 30, 33)

Future consideration:
Part of the debate around longer term change and possible growth of the Islands.
5. THE LONGER TERM CONTEXT

5.1 The analysis in the preceding Section 4 identified a number of Decision Areas where action is needed as soon as possible, and decisions cannot wait for long. In other areas however it can and should take much longer to decide the appropriate solutions – and particularly in the case of the wider land uses explored in the later Decision Areas, the answers cannot easily be found without a strategic context such as will hopefully be provided by the SP/TP review.

5.2 Determining the wider, and longer term context, inevitably widens the range of matters to take into account. It suggests in some cases that decisions will be influenced by views which have been, or need to be, made at the very highest and longest term strategic level – about the future nature of the Falkland Islands, for example. The pressures discussed in this paper raise fundamental questions about how the Island’s society and economy will respond to the current pressures and challenges – from oil developments certainly, but other changes could well be profound, for example relating to the future prospects for tourism, the fishing industry and for potential changes in areas such as Information Technology. Key issues will include the size and skills of the workforce, and availability of housing to provide for all. The regeneris study will address many of these implications, although it is limited to the direct and indirect implications of oil, and the wider implications of change in the society and economy may be much greater still.

key issues without a direct spatial dimension

5.3 Although not within the remit of the IDP, discussions with all the participants raised a number of matters which clearly are of live current interest, and will all impact on a debate about the future of the Islands, and which will thus affect its future long term spatial planning. These include:

i. immigration policy – and its effects on workforce growth to support or constrain the growing economy;

ii. the operation of the housing market, and the role of FIG through direct intervention and subsidies;

iii. the role of the monopolies which are operated by or through FIG, for example concerning the provision of fuel;

iv. and most fundamental of all, how oil revenues will be used in the Islands – for example what proportion might be directed to long term reserves, and what if any might be directed to short term priorities for infrastructure (and perhaps other benefits). The Plexus study in August 2012 commented that there was little evidence at that time of a strategic debate about the implications of the discovery of oil. Whilst that has undoubtedly been developing, many respondents in the
course of this work commented about the absence of a longer term, more wide ranging debate about these issues.

**a future “size” debate**

5.4 These considerations compound to the most fundamental long term issue of all – the future scale of change, or “size” of the Falkland Islands population. To some extent this has been an issue picked up in the Economic Development Strategy, but perhaps not discussed in the wider context which is now relevant. Distinctly mixed views were expressed about this in those contacted – including from those who do not find it relevant to discuss, to those who feel its consideration is long overdue. Some senior Government representatives indicated the view that there is no issue: change in the next 10 years will be minimal (eg. Stanley is likely to grow only from around 2,500 population to at a maximum around 3,000 population in the whole period). Similarly, others wished to strive to preserve the status quo, and seek to achieve minimal change whilst assimilating and supporting oil developments. Others however expressed the view that the significance of the challenges and opportunities now facing the Falkland Islands means that a wider explicit debate needs to take place – and that more change, within balance, should perhaps be accepted.

5.5 It should be stressed that nobody consulted wanted to lose the essential character of the Falkland Islands or Stanley – and this principle is held very dear. But there was still a breadth of opinion between the “small” and “big” perceptions of a preferred future. However, nobody seems to be expecting, or desiring, Stanley to grow to anything remotely approaching 10,000 population (however small that might be for a capital city, elsewhere in the world). Perhaps the debate could better be encapsulated as a range between minimal change – perhaps 2,700 – 3,000 population, and a higher limit of still relatively modest growth of perhaps 4,000 – 5,000 over the 10 – 15 year period which would be covered by the SP/TP review. The fundamental question is whether any greater than minimal change would be more sustainable, in supporting the operation of the economy and society (and in terms of its implications for wider external perceptions of the Islands as an entity), or indeed necessary if economic changes relating to oil and gas, and perhaps tourism, require more growth – and against this, how disadvantageous might be the consequences to the environment and the quality of life. Linked considerations of course relate to who would come if there were such growth – and how any immigration would be controlled to supply the necessary skills.

5.6 Whether or not there is such growth, change needs to be fully addressed in the Islands Plan, and in the review of the SP/TP: it needs to be planned.
future spatial planning of Stanley

5.7Section 2 commented that the existing Structure Plan and Town Plan are not truly spatial planning documents in current UK terms. They do not take a particularly pro-active stance in seeking to shape the nature of the Falkland Islands or the main town – or to take the lead in co-ordinating developments and investment to secure an envisaged future for Stanley or Camp. There is clearly a need for such an approach which is visionary but also co-ordinating of specific actions – whilst not losing the regulatory functions currently performed by the planning system.

5.8It is suggested here that the task for the SP/TP review should be to pick up the decisions identified in the previous section – reflecting and accommodating those short term decisions which need to be taken early, but helping to resolve and shape those which remain, and for which provision, by the SP/TP review of an overall context is necessary.

5.9At the strategic level, both plan reviews should contribute to and reflect a wider debate about the scale of change in the Falkland Islands. Having established the quantum of change (whatever the scale of growth – or lack of it – may be agreed), the plans need to ensure its delivery, and resolve some fundamental questions in shaping the Falkland Islands’ future places.

5.10As far as Stanley is concerned, the previous section has touched on many of the decisions which are necessary. There are clearly many others which deserve to be considered, even if resolution proves to be very difficult. An example of these is the future extent and purpose of Stanley Common – where it is apparent that there are many permitted but competing land uses, which are often in conflict. Related to this, land ownership is also clearly problematical. Rather than have specific ownerships drive the future, it is usually preferable to drive change through a view of the proper planning of an area – and then work through land ownerships to achieve that view. Both matters will no doubt be critical in resolving many of the issues in delivering the new port, its access road and all the necessary ancillary development.

5.11Some of the key spatial influences and constraints for Stanley have been exposed by the discussion of the Decision Areas in the previous Section 4. Resolution of the choices in these areas will begin to shape changes, and the future form of the town. Change is inevitably constrained by topography and environment, past decisions and other constraints not normally found in UK planning (ie. minefields). Such constraints, even with a review of the operation of Stanley Common as has just been mentioned, do tend to suggest that the direction of medium and long term growth for the town might well be towards the west, along the Harbour – which could indeed be considered broadly consistent with the location of the new port and ancillary developments.

5.12Many local issues have of course not been addressed in the previous discussion which would need to be picked up in the TP review – but as an illustration of the way choices on the alternatives might lead to a view on the
desired main spatial changes, the following diagram shows how the spatial changes might be brought together and conceptualised. It should be stressed that this is purely an example of how the integration of spatial planning concepts might be demonstrated – and how these will inevitably emerge from the determination of the choices in each Decision Area.
Future spatial planning possibilities for Stanley: Key Diagram example

Stanley Common: refocused, reshaped

National Nature Reserve: refocused, reshaped

new housing growth (phased direction)

new Power Station

Gordon Lines future strategy

Port Business Park

Commercial/retailing: Bypass strategy

Major new road routes

Major transport infrastructure: new port, refurbished Camber dock, enhanced Stanley Airport
6. ACHIEVING COMMITMENT: WHAT PROCESS OF ENGAGEMENT?

6.1 The preceding sections of this report have addressed the subject matter of the IDP. But beyond the detailed decisions which need to be taken, and the overall strategic long-term direction, the third main strand identified in the introduction is the need to consider the process by which the IDP should be developed.

6.2 The process of plan making and engagement can often be over-engineered – certainly in the UK the stages of plan making often become so complex that they obscure the content and common sense of the decision making which is needed. But bearing in mind that caution, it is nonetheless critical for the success – in terms of its implementation and delivery – that the IDP achieves general support and commitment for both individual schemes and overall strategic intentions.

6.3 In order to achieve this necessary commitment, it is essential to engage all affected, and promote ownership of the issues – and their solutions. Different engagement approaches exist – and have been, and are being utilised in the Falkland Islands. In simple terms, there is effectively a spectrum from:

- at one end: the blank sheet of paper – asking people open-endedly “what do you want?”
- at the other: the fully worked-up package – telling people that this is the Plan, this is what is going to happen, and asking “do you agree”?

6.4 Both of these approaches have their advantages and disadvantages. The open ended approach doesn’t stifle aspirations and straight-jacket thinking into old ways – but there is little time for this, with all the pressing decisions. Conversely consultation on a worked-up package focuses on practical solutions, and thus doesn’t encourage unachievable solutions – but it does tend to provoke a reaction of objection from those who feel left out of the process.

6.5 In contrast, it has generally been found to be more productive (and thus is the process now being encouraged in spatial planning in the UK) to adopt the approach of identifying choices (the main thrust of this paper) and promoting debate on these, with the objective of seeking agreement (or more realistically, a growing general consensus) that the preferred option is better than the alternatives. As part of this it is important for a lead to be taken – and it should be the responsibility of FIG at each stage to set out the agenda, and lead the discussion.

6.5 This kind of approach means that it is often as important to gain support for the reasons for rejecting options as it is to get support for the preferred approach – the fundamental point being to achieve the greatest consensus possible that the proposed way forward is better than any of the alternatives.
6.6 This report has been prepared to lend itself to the latter approach – to provide the opportunity for debate and ownership of the solutions in each of the key areas of decision, as the overall approach and strategy is formulated – with the lead being taken by FIG in seeking engagement to develop the IDP as a commonly agreed approach. In these terms, this report is similar to an initial “issues and options” document in current English spatial planning. It is a beginning to the process, and is intended as a starting point to promote discussion and agreement on ...

- have the key issues (decision areas) been selected?
- have the choices or options been correctly defined – as a basis for their subsequent detailed evaluation and debate, leading to selection of the preferred approach?
- which are the critical issues which need determining first, and how are they inter-related?
7. CONCLUSIONS AND THE WAY FORWARD

the need for early decisions

7.1 This report has attempted to define the key decision areas, and identify the main choices and their need for immediate decisions. Of the 34 Decision Areas identified in Section 4, key decisions will need to be made in 10 areas within the next few months, and certainly within 2013:

1. New deep water port at Port William – users/configuration;
4. Port William Access Road (with utilities) – alignments;
5. Port William ancillary related uses;
6. Fuel supply – Port William & Stanley;
9. Camber (South) Oil Tanks
12. Power Station
13. Water Supply
19. Quarry: aggregates capacity
25. Oil & Gas supporting development at Gordon Lines

7.2 A large part of the remainder of the decisions should more comfortably be taken within the period up to 2 years – which coincides with and should be capable of being informed by the review of the SP/TP.

practical next steps

7.3 This report does not attempt to evaluate the choices, and certainly not to promote a preferred choice. That would be impossible given its limited timescale. It is recommended as a basis for further work to develop the Infrastructure Development Plan.

7.4 Many of the details and quantification of requirements – especially of the oil-related developments – cannot be established with any degree of certainty at this stage. In a number of cases work is already proceeding to refine assumptions, and as the Plexus/Rockhopper Study indicates, it will be important for refinements of requirements by the oil companies to be shared as soon as possible with the Government.

7.5 The immediate response to this report is recommended to be to consider whether all the key Decision Areas have been identified, and to reach agreement on the range of choices which need to be considered under each. Having affirmed (or amended through this process) the structure presented here, the next task should be to evaluate the choices, and develop a preferred solution for each – and beyond the individual decisions, consider whether the resultant package of proposals as a whole (ie. the draft IDP) amounts to the
appropriate and best overall strategic approach. Agreement at each stage should involve wide engagement, as discussed in the previous section.

**key principles in developing the IDP**

7.6 At a general level, and to summarise a couple of points made in this report, it is recommended that there are two key ingredients to the way forward in establishing the IDP:

1. the IDP must be developed as a *robust* strategy. This means adopting a flexible approach – which provides a *resilience* to future needs. Providing scope to expand development areas – and showing the direction of expansion, matched by infrastructure provision – is a key part of this;

2. the IDP – evolved, and amended as required, from the starting point described here – needs to be developed in *close partnership* with all the key parties. It needs to be taken forward jointly, with full discussion – with the objective of *achieving ownership* of the assumptions. FIG has the opportunity, and responsibility, to take the lead in planning and co-ordinating developments to achieve the future desired for the Falkland Islands – but with the equal responsibility to take all parties along with the strategic approach.

David Smethurst  JP  MA (Cantab) DipTP MRTP
David Smethurst Consultancy  7th March 2013
APPENDIX A
INFRASTRUCTURE ELEMENTS TO BE CONSIDERED

Port related (inc. construction)
- berths
- port lay down areas (controlled storage, warehousing, chilled warehousing)
- container yard
- offices
- services: power, water, communications, waste
- ships agencies
- customs
- freight management
- yard management and security
- trucking, crane & forklift hire
- bulk material handling
- specialist plant & equipment
- inspection of equipment, servicing & repair
- load testing
- vehicle parking and storage
- fuel & bunkering
- berth to take larger fuel tankers
- ship repair facilities
- small vessel berthing
- crew & staff accommodation
- facility to handle FEU (fish, meat) containers
- clean working area for fish handling on quayside
- cold storage & market place for fish
- lay up berths of fishing vessels
- bio-secure fisheries & container/cargo washing
- Industrial Park: warehousing, containers (inc. reefer points)
- temporary accommodation for construction workers
- construction compounds – material, plant, offices, site welfare
- batching plants (concrete)
- bulk aggregates storage
- temporary access roads
- permanent serviced roads
- increased power – temporary (construction) and permanent
- increased IT – temporary (construction) and permanent

utilities
- power & energy
- alternative energy
- water supply
- waste management – disposal, recycling
- sewerage and sewage disposal
- health
- emergency: police, fire, ambulance
- education
- aggregates/quarries
- telecommunications
- roads

**housing**
- general housing
- hotel accommodation
- short term serviced accommodation

**other land uses inc transport**
- roads (esp. MPA road)
- transportation (bus operators, vehicle rentals)
- shipping & coastal transport
- airport capacity at MPA – terminal – esp. baggage handling
- environmental services (inc. Air/Sea rescue, oil spill response)
- airport hangers – Stanley
- Search & Rescue helicopters
- retail: food supply
- offices & commercial uses
- corporate support: IT/telecoms, legal, marketing, banking, photographic
- tax & accountancy
- warehousing
- leisure facilities
APPENDIX B
INDIVIDUALS AND GROUPS MET IN THE COMPILATION OF THIS REPORT

Sandra Tyler-Haywood, Acting Governor

Falklands Islands Government
The Members of the Legislative Assembly
Keith Padgett, Chief Executive
Nicola Granger, Financial Secretary
Jamie Fotheringham, Head of Policy Unit
Simon Fletcher, Director of Central Services
Manfred Keenleyside, Director of Public Works
Stephen Luxton, Director of Public Works Department
John Barton, Director of Natural Resources
Malcolm Jamieson, Harbour Master, Fisheries Department
David Jenkins, Director of Health
David Tongue, Acting Director of Education
Antony Payne, Environmental Planning Officer
Nick Rendell, Environment Officer

Marc Boucher, General Manager, Falklands Islands Development Corporation
Paul Higham, Project Manager, Falklands Islands Development Corporation
Tony Mason, Managing Director, Falklands Islands Tourist Board

Commercial and other operators
FI Chamber of Commerce (Chair Mike Butler, meeting attended by about 30 members)

Oil & Gas, inc. supporting operations
Ken Humphrey, Premier Oil
Felicity Sawle, Falklands Oil & Gas Ltd (FOGL) – in the Falklands
Tim Bushell, Falklands Oil & Gas Ltd (FOGL) – in the UK (telephone)
Howard Obee, Chief Executive, Border & Southern Ltd – in the UK (telephone)
Drew Irvine, Argos Resources
Lewis Clifton, Director Byron McKay Ltd

Fisheries
Hamish Wylie, FI Fishing Companies Association
Drew Irvine, Argos Group Ltd
Stuart Wallace (Managing Director), and Paul Freer, Fortuna Fishing Ltd

Other operations
John Foster, Managing Director, FI Holdings, UK
Roger Spink, (Managing Director) and James Marsh (Property Director), FI Company
Robert Rowlands, Stanley Services Ltd
Tom Swales, Stanley Services Ltd – in the UK (telephone)
Adam Cockwell, Managing Director, Workboat Services Ltd
Neil Rowlands, Leaseholder Camber Dock

consultants – in the UK (telephone)
Andy Martin, Arch Henderson
Stephen Nichol, Regeneris

In addition, to raise the profile of this work, and indicate the imminence of a dialogue on the matters covered, interviews were given in Stanley to Penguin News (John Fowler); FI Radio Service (FIRS, Stacey Bragger), and FITV.
APPENDIX C
LIST OF DECISION AREAS

A. new Port William related developments
   1. New deep water port at Port William – users/configuration;
   2. Port William – expandability;
   3. longer term deep water port potential in Port William sound;
   4. Port William Access Road (with utilities) – alignments;
   5. Port William ancillary related uses;
   6. Fuel supply – Port William & Stanley;

B. Other development issues to north/west of Stanley
   8. Camber (South) Dock
   9. Camber (South) Oil Tanks
   10. South of Camber access routes
   11. longer term development opportunities: west end of Stanley Harbour

C. Utilities/general infrastructure
   12. Power Station
   13. Water Supply
   14. Waste Disposal
   15. Fire Station relocation
   16. Sewerage/Sewage Disposal
   17. School Facilities
   18. Medical Facilities
   19. Quarrying: aggregate capacity

D. Housing
   20. General housing supply (Sapper Hill and elsewhere)
   21. Short term accommodation
   22. Future spatial direction of housing growth

E. FIPASS, FIPASS2 and Gordon Lines developments
   23. FIPASS
   24. “FIPASS2”/ “FIPASS East”
   25. Oil & Gas supporting development at Gordon Lines
   26. Fisheries supporting development, including containerisation, at Gordon Lines
   27. Other development at Gordon Lines

F. Other land use issues
   28. Commercial development – offices
   29. Retail Development
   30. Waterfront Development Strategy proposals
   31. Helicopter facilities, Stanley Airport
   32. Stanley Airport
   33. MPA – Stanley Road
   34. MPA non-military operational development