DGR4.1 Continued	A series of PRVs and pumps will ensure adequate service to the future Precincts of Area E. The proposal for the interim supply for the development of the Altitude Aspire Site is for a temporary connection to the 600dia main (including PRV as required) and a co-current connection to an existing 100dia main on Fraser Drive to service the higher level allotments. A detailed network analysis and documentation will be prepared at the construction certificate phase of the development to confirm the use of, and number of booster pumps and pressure reducing valves required to ensure adequate daily service and subsequent Fire Demand requirements for the Site. Council's most recent advice (refer DGR 4.2) via emails dated 14th October 2010 and 25th November 2010 indicates that they are currently investigating alternative strategies to service the proposed Altitude Aspire Development. Such alternatives include potentially a 2ML reservoir at Chambers reservoir of which one third (1/3) capacity would be for Altitude Aspire and balance for future densification within the existing chambers zone. Council's emails advise that the topography would require a booster pump station for the upper levels and several pressure reducing valves for the lower levels and that it would be necessary for the reservoir to be built as a priority with the first stage as Chambers Reservoir is already fully committed with its current zone. Further to the supply of water to the development of Area E, and due to the `uncontrolled' alignment of the existing 600mm dia Duroby Main, the provision has been made for the relocation of this trunk main via the construction of a new 600mm dia trunk main along the proposed Broadwater Parkway alignment. Connection points to the existing main would be subject to Councils instruction and approval. The decommissioned main would be plugged and left in

DGR4.1 Continued	place to ensure minimal disturbance within Environmental Zone. Refer to Appendix 8 (Water Layout Plan) for proposed preliminary Water reticulation Plan. **b) <u>Sewer Reticulation</u>** Reference is made to the Banora Point Sewerage Study Report (TSC Sept 1999) which identifies the requirement of a Terranora Regional Pump Station in the development of Area E. Discussion with Council has identified the need for additional studies to be carried out on the existing reticulation between Area E and the Banora Point Treatment Plant. This should establish ultimate capacity and upgrade requirements. Council is to confirm details and timing of studies accordingly. For the Interim proposal, the schematic design shown in Appendix 8 (Sewer Layout Plan) outlines the proposed sewerage reticulation servicing Altitude Aspire. The proposal is for the sewer reticulation for stages 1-6 to discharge into a temporary pump station (PS1) located in the north-eastern corner of the site. An interim 150mm sewer rising main, to be laid within an easement as shown, will discharge flows into the existing gravity sewer network along Fraser Drive. Furthermore, Council has identified the requirement within Area E for the construction of the Terranora Regional Pump Station (TRPS) to service the region. Subsequent to this requirement the proposal is for the construction of pump station 2 (PS2) as the Terranora Regional pump station which will service the full development of Area E together with the future sewer reticulation works of the existing development off Parkes Lane as per Council's planning guidelines. It is proposed that PS2 will be constructed concurrent to the stage 7 works and the construction of the Broadwater Parkway. The proposed new rising main is to constructed along the Broadwater parkway

DGR4.1 Continued	alignment for discharge into the existing sewer reticulation north of the site along Fraser Drv. According to discussions with Council, and in reference to the Banora Point Sewerage Strategy Study (TSC Sept 1999) the receiving sewer reticulation along Fraser Drv has been earmarked for future upgrade works. It would be envisaged that these upgrade/rectification works would be completed by Council prior to the full development of Area E and the ultimate commissioning of PS2/TRPS. The proposal for pump sizing and duty flows for PS1 will be relative only to the Altitude Aspire flow requirements. Ultimate regional flows and respective pump upgrades are to be carried out subject to the completion of Council upgrades to existing reticulation network. However, Council has recently advised via emails dated 14th October 2010 and 25th November 2010, that whilst the alternative connection point is still the Banora Point Waste Water Treatment Plant (BPWWTP) there maybe earlier stage connection points with temporary rising mains injecting into existing pump station rising mains. The extreme situation may require a new sewer rising main to the BPWWTP inlet works – an extra 2km of main in a crowded corridor. Council advises these options are currently being further investigated to get a clear strategy for the way forward. Further analysis of these strategies will be required to confirm the extent of works necessary. **c) <u>Stormwater</u>** Stormwater treatment and management systems are to be implemented in accordance to recommendations by Gilbert & Sutherland – hydraulics consultants. Stomwater conveyance, including roofwater collection is proposed via a suitable piped network system with outlets to treatment basins in accordance to relevant stormwater management plans. A detailed hydraulics design and flood analysis will be carried out as part of

DGR4.1 Continued	the operational works submission and will confirm the conveyance of the Q100 rainfall surface runoff within the proposed road reserve and flow paths. A preliminary stormwater network is shown in Appendix 8 (Stormwater Layout Plan). Required Stormwater treatment and conveyance of upstream catchment is proposed via a Central Open Drain. Ultimate design for the open drain will be carried out in accordance with design and consultation by Gilbert & Sutherland P/L (project Hydraulic Consultants). Preliminary proposal plans for the Central Open Drain are shown in Appendix 9 as follows; - Swale Plans - Swale Long Section Plans - Swale Cross Sections Plans In accordance to Council's Environmental requirements for waters discharged into the SEPP14 parcel, the proposed treatment basins and drains will ensure quality and quantity levels are measureable and maintained accordingly. Please refer to report by Gilbert & Sutherland P/L for additional information/recommendations. **d) <u>Gas, Electrical and Telecommunication Services</u>** Reference is made to the Tweed Area E Local Environmental Study (Parsons Brinckerhoff March 2004) which identifies the development requirements for Gas, Electrical and Telecommunications. All relevant service providers will determine existing capacity of respective networks and supply design proposals in accordance to Councils standards at operational works phase. It is envisaged preliminary services will be obtained from both Fraser Drive and via Terranora Road corridors.

DGR4.1 Continued	**e) <u>Roadworks</u>** The concept plan for the development proposal provides for an integration of the development with Environmental Protection Area (SEPP 14) within the north of the Site. The road layout as proposed emphasis' the north-south aspect of the lots in accordance with recommendations by development and building guidelines. This layout also maximises the visual aspect of the allotments with views towards the Terranora Broadwater. Further detail regarding road network together with pedestrian and cycle network will be provided by MPS Architects and Form Landscape Architecture. Refer to Appendix 4 for overall road layout plan including footpath layout.
DGR 4.2 ***Provide an assessment of how the provision for services and infrastructure required at both a State and local level will be managed (refer to submissions from agencies at Attachment 4) Consult with relevant agencies and include an outline of the program of works for such services and infrastructure, and provide estimates of cost, timing of works, and sources of funding.***	Consultation with Tweed Shire Council has occurred on several occasions regarding the provision of services and infrastructure. (Refer Appendix 15). Consultation has occurred in the form of meetings, and emails as follows:- **(a) 17 March 2010 – Meeting Bradlees Civil Consulting and TSC Water Unit.** The meeting discussed strategies for both ultimate and temporary servicing of water and sewer supply to the development. A copy of the minutes of the meeting, are included in Appendix 15. **(b) 19 March 2010 – Email from TSC to Bradlees – Area E, 600mm Trunk Main Hydraulic Grade Line** The email is a follow up to the meeting in (a) above and contains hydraulic grade line information. The email highlights some of the temporary servicing requirements for interim supply noting some temporary booster pump system. A copy of the email is included in Appendix 15. **(c) 26 March 2010 – DAP Meeting with TSC Officers** Briefly the meeting discussed a range of Town

DGR 4.2 Continued	Planning issues, Broadwater Parkway, Access and other matters. In relation to the provisions of services, the DAP meeting canvassed the strategy for supply of water for Area E which includes the provision of a 3ML reservoir in the south west corner of Area E near Mahers Lane and Terranora Road. Contrary to previous advice from TSC on 17 March 2010 (i.e.) item (a) above) the offer of temporary water supply was withdrawn on the basis that some sections of the 600mm trunk water main were vulnerable to failure. The meeting advised the only satisfactory option was to consider the construction of the reservoir and pump station in the first instance. With regard to the provision of sewer supply, again strategies for Area E were discussed which included a regional pump station to be located in the low area where sewerage would be pumped to Banora Point Wastewater Treatment Plant. Several interim solutions were proposed including a local temporary pump station that would pump to an existing gravity sewer manhole into which the existing Terranora SRM discharges. This latter option would require further analysis a copy of the DAP Meeting Minutes are included with Appendix 15. **(d) 8th April 2010 – Meeting at TSC with Council Officers** This meeting discussed several matters related mainly to Broadwater Parkway alignment and land acquisition. Discussion in relation to water and sewer servicing was very limited and confirmed Council's position as advised in DAP Meeting on 26 March 2010. A copy of Darryl Anderson "Notes of Meeting" via email dated 8 April, are included in Appendix 15. **(e) 4th May 2010 – Email to TSC to Bradlees – Sewer Connection** This email from TSC is a follow up to the meeting with Council Officers on 8 April 2010 and provides a

DGR 4.2 Continued	preliminary analysis of the receiving sewer system for a proposed interim sewer supply. Council advises it would be reluctant to give an approval for a temporary sewer connection to the existing gravity in Fraser Drive. A copy of Council's email dated 4 May 2010 is included in Appendix 15. **(f) 7th June 2010 – Email from Bradlees to TSC Water and Sewer Servicing** This email is a follow up to Council's email dated 4 May 2010 (item (e) above) and seeks to obtain clarification and further detail of information provided. A copy of this email is included on Appendix 15. **(g) 14th October 2010 – Email from TSC to Bradlees Water and Sewer Servicing** This email is a response to Bradlees email dated 7th June 2010 and advises of Council's current investigations to find suitable interim service solutions for water and sewer. Such alternatives include potentially a 2ML reservoir at Chambers reservoir of which one third (1/3) capacity would be for Altitude Aspire and balance for future densification within the existing chambers zone. Council's email advises that the topography would require a booster pump station for the upper levels and several pressure reducing valves for the lower levels and that it would be necessary for the reservoir to be built as a priority with the first stage as Chambers Reservoir is already fully committed with its current zone. With the regard to sewer, whilst the alternative connection point is still the Banora Point Waste Water Treatment Plant (BPWWTP) there maybe earlier stage connection points with temporary rising mains injecting into existing pump station rising mains. The extreme situation may require a new sewer rising main to the BPWWTP inlet works – an extra 2km of main in a crowded corridor. Council advises these options are currently being further investigated to get a clear strategy for the way forward. The investigations are ongoing and outcomes are to be advised. A copy of Council's email dated 14 October 2010 is included in Appendix 15.

DGR 4.2 Continued	**(h) 25th November 2010 – Email from TSC to Bradlees Stand Alone Sewer and Water Strategy.** This email is in response to a meeting with various Council officers on 24th November 2010 at which issues related to Broadwater Parkway alignment and servicing for water and sewer were discussed. Whilst matters related to Broadwater Parkway were to be further considered, some strategies related to water and sewer servicing were canvassed. Those strategies were consistent with previous strategies outlined in paragraph (g) above except Council emphasised the sensitivities of the strategies with different staging options. Council tabled some very preliminary drawings of "Stand Alone Strategies" for both water and sewer to suit Altitude Aspire development. A copy of Council's email dated 25th November 2010 together with a copy of preliminary drawings is included in Appendix 15. **(i) 1st December 2010 – Meeting at TSC with Council Officers.** This meeting was convened with Council officers Metricon, Darryl Anderson Consulting, Bradlees Civil Consulting and Bitzios Consulting Pty Ltd, as a follow up to the meeting with Council officers on 24th November 2010 to discuss only Broadwater Parkway alignment issues. A preliminary alignment from Council's design unit was tabled for discussion showing a staggered intersection arrangement with Fraser Dve and Amaroo Dve. This intersection arrangement is shown on our sketch drawing SK2753 Appendix II. There are no minutes of the meeting. In relation to State services and infrastructure we advise that there are no services or infrastructure to be provided by the State. With regard to a program of works, the Proponent anticipates construction to commence within six (6) months of receiving approval. Ongoing construction will then be dictated by market demands. An estimate of Preliminary Project Development Costs in the amount of $22,122,684.00 (excluding GST) is provided in Appendix 16. The Proponent advises that sources of funding will be a combination of

DGR 4.2 Continued	commercial funding arrangements with the Proponent via various lending institutions and Section 94 Contributions. In addition to the above, we refer to the Tweed Road Contributions Plan (TCP - Jan 2009) as prepared by Council outlining expected budgets for infrastructure works. Refer Appendix 10 for relevant extract from the TCP.
DGR 5.11 ***Provide an assessment of how the future permanent alignment of Broadwater Parkway and Fraser Drive is anticipated to work in terms of timing, payment and constraints (refer to Tweed Shire Council's comments on Infrastructure, Roads and Access in Attachment 4).***	Designated as a Neighbourhood Connector, the Broadwater Parkway provides the primary access to the northern section of the Area E development and connects Mahers Lane (western boundary) to Fraser Drive (eastern boundary) weaving along the northern boundary of Area E. The Broadwater Parkway will provide the principle access into Area E and the direct access to proposed Altitude Aspire & 2. Refer to Appendix 11 for the draft Broadwater Parkway details as follows; - Road layout Plans - Long sections Plans - Cross sections plans Preliminary discussions for the intersection of the Broadwater Parkway with Fraser Drive designated a signalised intersection in accordance with the traffic study report carried out by Parson Brinckerhoff (2004). However, the most recent discussions with Council on 1st December 2010, indicate a preliminary alignment from Council's design unit for a staggered intersection arrangement shown indicatively on our drawing SK2753, Appendix II. The intersection arrangement is subject to detail survey, detail engineering design and traffic modelling analysis by Bitzios Consulting Pty Ltd. The alignment and profile of the Parkway is in accordance with the required 60kph design speed environment and endeavours to integrate with the existing topography while minimizing its impact into the Environmental protected Zone to the north of the Site. This profile also promotes the reduced speed environment consequent to the existing school zones

DGR 5.11 Continued	within Mahers Lane. Construction timing for the Broadwater Parkway is for commencement of works concurrent to the stage 7 construction. The proposal is for the road to be constructed up to the proposed roundabout at stage 7 thus providing access to the full development of Altitude Aspire. The ultimate construction of the Broadwater Parkway through to Mahers Lane is proposed for completion in conjunction with the development of Altitude 2 to the north-western section of Area E. Reference is made to the Tweed Road Contributions Plan (Jan 2009) as prepared by Council outlining expected budgets for the construction of the Broadwater Parkway as shown as items 62 and 127 with the estimated values of $2.48M and 5.12M respectively (refer Appendix 10)
DGR 5.13 ***Investigate the opportunity for road alignments to follow existing land contours. The objective is to minimise cut and fill, preserve the integrity of the existing topography, and take advantage of existing overland drainage opportunities.***	Various allotment and road layouts have been investigated by Metricon P/L to determine a suitable yet functional road network within the steep site. The key elements which underpin the basis of the subdivision layout design are as follows:- (a) Tweed Shire Council (TSC) requirement that all access be provided via the proposed Collector Rd, Broadwater Parkway located to the north of the site. (b) As a consequence of (a) above, all internal roads to the subdivision will access the site, from the lowest areas of the site. (c) As a result of (a) and (b) above, to access the higher areas of the site, in particular the south east areas, and provide connectivity throughout the subdivision, access across the existing gully is necessary. (d) The subdivision layout design has adopted Tweed Shire Council's "new urbanism" principle for connectivity throughout the development. (We note there is only one (1) cul-de-sac in the layout design which provides access to seven (7) lots out of a total of three hundred and seventeen (317) lots). (e) The maximum road grade provided is 16% in accordance with TSC requirements. The majority of road grades are 12% or less. (f) In accordance with good engineering practice, balance earthworks for the site and avoid the cost and traffic nuisance of importing fill material from off site

DGR 5.13 Continued	along public roads. Preliminary earthworks volumes indicate cut approximately 521,800 cubic metres, fill approximately 496, 100 cubic metres. Refer to Appendix 15. (g) To provide a range of lot grades and sizes to facilitate a variety of house design and residential product for marketing purposes. Cross contour road design has been minimised where possible while maintaining within practical design guidelines for maximum grades and lot access requirements. As previously stated the road alignments as proposed emphasis the north-south aspect for the lots and maximises the visual aspect of the allotments with views towards the Terranora Broadwater. See Appendix 12 for draft Building Pads and Site cross sections plans.
DGR 5.14 ***Ensure public access to and along the adjacent SEPP 14 wetland and Terranora Broadwater is not compromised, and provide new opportunities for controlled public access and disabled access where appropriate.***	The proposal for the Broadwater Parkway is to incorporate various opportunities for public access and connectivity to the SEPP 14 Wetland Area. Reference is made to plans prepared by project landscape architects Form Landscape Architecture showing proposed parking, cycle paths and pedestrian pathways. Ultimate layout subject to further investigation and consultation with Council and relevant authorities at detail design stage.
DGR 7.1 ***Provide a detailed site survey showing existing and proposed contours, levels and quantities of cut and fill earthworks, and provide details of the source of fill including types of material and soils.***	A detailed Site Survey Plan showing existing contours over an aerial photograph is provided in Appendix 1. Appendix 2 shows both existing and proposed contours, together with a cut and fill shading plan indicating various depth ranges for cut and fill extents. All earthworks fill is to be generated from site to fill Altitude Aspire. Earthworks volume calculations for the preliminary design indicate an earthworks balance with a cut volume of approximately 521,800 cubic metres and a fill volume of approximately 496,100 cubic metres. Refer to Appendix 13. It should also be noted that due to the topography of the Site it is expected that up to 18% of the site will

DGR 7.1 Continued	require earthworks at greater than 5.0m in depth. However this is predominantly within the Central Open Drain where the natural gully has been raised. Refer to Appendix 13 for Bulk earthworks staging plan and details. The regional geology of the site comprises the Neranleigh Fernvale Beds, which are capped by the Lamington Volcanics. Generally, the local geology within the western ridge area and eastern slopes adjacent to Fraser Drive together with the steeper slopes adjoining the existing central drainage gully comprise red brown volcanic clay soil of typically high plasticity. The red brown volcanic clay soil contains varying amounts of weathered to fresh basalt cobbles and boulders, which have been formed by spheroidal weathering and are most common within the areas adjacent to the existing central drainage gully. A sparse covering of basalt boulders and cobbles are evident strewn across the surface in most areas of the site. Underlying the volcanic clay soils, are soil and rock materials derived from the Neranleigh – Fernvale Group. The silty clay soils derived from the Neranleigh Fernvale Group are observed to be overlain by a thin layer of red brown volcanic clay (approx 1.0m to 2.0m thick) adjacent to the banks of the central drainage channel. However the red brown volcanic clay soil is considerably thicker (greater than 7.5m) within the upslope, elevated areas of the western ridge line and eastern slopes adjacent to Fraser Drive. The lower central area of the site adjacent to the northern boundary consists of alluvium materials. Such materials are predominantly moist, stiff and very stiff, silty clay of high plasticity, extending to depths of approximately 1.0m to 2.0m. Acid Sulfate soils are present within this lower central floodplain area below RL 5m AHD and an Acid Sulfate Soil Management Plan will be required prior to earthworks commencing in accordance with the NSW ASSMAC Guidelines. Generally the stability of the western portion of the site

DGR 7.1 Continued	and the upper eastern portion of the site are assessed to be satisfactory. However, the main drainage channel and lower sloping topography adjacent to the drainage channel show evidence of slope instability. The proposed earthworks designs, which includes filling the lower portions of the Site and cutting the upper portions of the Site, will reduce the slope gradients and therefore reduce the risk of slope instability. Significant earthworks and remediation works will be required prior to the placement of fill materials. This includes removing areas displaying instability and implementing appropriate drainage prior to placement of fill. From the results of the broad geotechnical assessment, it is assessed by the geotechnical consultants, Morrison Geotechnic, that the site is considered to be suitable and feasible for the proposed development providing the recommendations of their report, including repairs to the landslip areas and the guidelines for hillside construction are followed. Refer to Morrison Geotechnic report.
DGR9.1 ***Address the issue of provision of a sustainable water supply for the development site. Ensure there is adequate water supply for the development. If an alternative other than town water supply is proposed then provide an assessment of the water requirements. The assessment should include Water Management Plans detailing how a sustainable and efficient water supply can be sourced and implemented with minimal reliance on accessing valuable surface and groundwater resources.***	The Tweed Area E Local Environmental Study by Parsons Brinkerhoff– Section 3.14.1 Water Supply (March 2004), identifies the availability of water to the Area E Region and quantifies the provision of water to the proposed development. The Parsons Brinckerhoff (PB) Report outlines Tweed Shire Council's strategy for providing bulk water supply for up to 160,000 population in the Shire, with connections provided to approximately 65,000 population. Council's strategy includes options for raising Clarrie Hall Dam to increase storage capacity and the construction of an additional dam at Byrrill Creek where Council has already purchased 80% or more of the land required. The PB report notes:- Quote *"With recent legislative changes and drought events*

DGR9.1 Continued	*in the Shire, Tweed Shire Council is re-examining options for providing bulk water supply. A critical aim of this review is to ensure that bulk water supply for future population will be sustainable. Council has currently commissioned a study to prepare and integrated water cycle plan and it is likely that as a result of this study that estimates for population able to be supplied with bulk waters will be revised down. This study will examine Council's current strategy for bulk water supply and investigate the impacts of introducing new measures for water conservation and control (D Oxenham, pers.comm., 2004)."* The PB report also states that this should not effect development with a short time horizon such as Area E but may have impacts on development in the shire with a longer time horizon. Based on the various discussions to date with TSC officers (refer DGR 4.2) we are not aware of any Council plans or strategies for alternative water supply options other than town water supply. The PB report advises details for supply of water to Area E as follows:- Quote: *"The water supplied in the vicinity of Area E comes from Clarrie Hall Dam via the Bray Park filtration plant through to the North Tumbulgum reservoir (Martin Findlater & Assoiciates Pty Ltd, 1995).* *A water conveyancing master plan prepared by GHD in 1999 based on developments scheduled to have taken place by 2011, which are in addition to the general increase in population, included a 4,000 EP development on Area E. This study indicated a number of capital works in the water supply system required to service the 2011 population but none specifically for Area E.* *GHD's conveyancing study was conducted based on a peak day demand of 850L/person/day and an average*

DGR9.1 Continued	*day demand of 450L/person/day (GHD 1999).* *The Duroby main is a 600mm water main that traverses the northern boundary of Area E and is supplied from the North Tumbulgum reservoir (Alex Abedrabbo, pers. Comm.., 2003). In addition to the Duroby main there is a second 150mm (pers comm.. Alex Anedrabbo, 26th June 2003) water main that runs along the southern boundary of Area E along Terranora Road, with two reservoirs at Rayles Lane (GHD 1999). The GHD analysis was undertaken assuming that the Duroby main would supply 3,000 EP while the Terranora Road main would supply 1,000 EP (GHD 1999).* *The GHD report was based on trunk mains and although it shows that there is generally sufficient pressure to supply the future water demand in the distribution system after required capital works, it did not extend to the minor reticulation system. Hence, it did not identify the areas of low or high pressure in the Area E. There is no requirement for a reservoir on Area E identified in the GHD report (GHD 1999), however the Draft Interim Strategic Plan – Cobaki/Bilambil Heights/ Terranora (TSC, 1995) stated that a site of sufficient size for a 5ML reservoir was required on site to service the area (TSC, 1995). The requirement for a reservoir has been confirmed by Council staff however it has been advised that only a 3ML reservoir will be required within the site (Alex Abedrabbo pers comm. June 2003).* *Discussions with TSC have identified that the 600mm Duroby main is the preferred water supply for Area E and a pipleline connecting the proposed 3ML reservoir with the 600mm Duroby main will be required (Alexandra Abedrabbo pers comm. June 2003). There is sufficient capacity from the North Tumbulgum reservoir to service Area E, provided a reservoir is constructed on site (Alexandra Abedrabbo pers comm. June 2003).* *The North Tumbulgum is at approximately 115m AHD. The recommended elevation within Area E for a*

DGR9.1 Continued	*reservoir is 130m AHD. While the majority of the site is lower than the North Tumbulgum reservoir, a booster pump from the 600mm Duroby main to the reservoir may be required. A network analysis including main and booster pump (if required) sizing will therefore be necessary.* *The footprint required for a 3ML reservoir, which is approximately 30m in diameter involve 1000m2. The land required for the 3 ML reservoir must be provided by the proponents for rezoning of the land at no cost to the community (TSC, 1995).* *The footprint for the reservoir including some allowance for construction on slope and access requirements is 0.25 ha. The preferred location for this reservoir is in the vicinity of the intersection of Terranorra Road and Mahers Lane. The approximate cost for a 3 ML reservoir is $665,000 (Land & Water Conservation, 1999). This cost does not include land acquisition and power supply. Costs for the provision of the reservoir, pipeline and booster pumps will be required to be met by the Developers within Area E. Internal reticulation of water will also be required to be constructed by developers".* *End Quote* Council's most recent advice (refer DGR 4.2) via email dated 25th November 2010 indicates that they are currently investigating alternative strategies to service the proposed Altitude Aspire Development. Such alternatives include potentially a 2ML reservoir at Chambers Reservoir of which one third (1/3) capacity would be for Altitude Aspire and balance for future densification within the existing Chambers Zone. Council's email advises that the topography would require a booster pump station for the upper levels and several pressure reducing valves for the lower levels and that it would be necessary for the reservoir to be built as a priority with the first stage as

DGR9.1 Continued	Chambers Reservoir is already fully committed with its current zone. Further analysis of these strategies will be required to confirm the extent of works necessary. A copy of Council's email dated 25th November 2010 is included in Appendix 15. Extract of the Parsons Brinckerhoff Report – section 3.14.1 is attached as Appendix 14 as supporting information.