

FINDINGS AND RECOMMENDATIONS

The relevant strategic planning issues, Aboriginal heritage values, ecological and riparian functions, floodplain management, employment considerations, urban development opportunities, traffic management and a wide range of other matters are canvassed in the previous sections of this report. The Commission's terms of reference required a comprehensive assessment of the values and constraints of the site in developing the preferred land uses, planning outcomes and management options. The Commission has also had due regard to government policies relating to coastal protection and development. It recognises that its recommendations have significant implications for the substantial planning undertaken to date by Council, Stockland, government agencies and the community.

The residential developments proposed in Stockland's draft Master Plan and Council's draft DCP are largely confined within areas currently zoned 2(b) Medium Density Residential under Wollongong LEP 1990. Council's draft DCP also revises DCP 94/17 which currently applies to the land, resulting in wider riparian corridors and a lesser area available for residential development. Stockland's draft Master Plan is claimed to exceed the requirements of DCP 94/17 and provide significant environmental benefits while yielding an appropriate level of residential development. Other environmental planning considerations have also been relevantly taken into account according to Council and Stockland.

A stated goal of Council has been to achieve a balance between residential development and restoration/rehabilitation of the riparian corridors as well as other open space lands at Sandon Point. DIPNR(PlanningNSW) generally supports such an approach to resolving the ongoing land use conflicts. The Commission does not disagree in principle with this goal. But the values and constraints of the CoI area must be thoroughly canvassed and assessed with due regard to the relevant environmental planning principles and policies as the Commission has done in its report.

Neither Council nor Stockland have satisfied the Commission that they have given appropriate weighting to important environmental planning considerations. Neither the draft DCP nor the draft Master Plan provide the necessary balance between the cultural, ecological, social and developmental values of the CoI area. These plans favour development, albeit in accordance with the current environmental planning requirements applying to the CoI area. This approach would also achieve early restoration for much of the western part of the CoI area. However, it would not provide the level of important Aboriginal cultural, ecological and environmental benefits which the Commission's assessment of values and constraints of the CoI area indicates are achievable in the long term with a reduced level of residential development. The Commission recognises in making its recommendations that restoration and rehabilitation of land at Sandon Point is unlikely to be completed in the short term and that Council would need to commit funds for ongoing restoration works. Nevertheless, the major sustainable environmental planning requirements of implementing coastal planning policies, protecting Aboriginal heritage, maintaining visual amenity, providing for appropriate riparian corridor functions, conserving and enhancing the endangered SCESFC and the Turpentine forest, and developing certain areas of the land for residential use would be achieved.

The whole CoI area is considered significant to many in the local Aboriginal community. The significance of Aboriginal heritage within and adjacent to the eastern section of the CoI area has been reinforced by the Kuradji burial, the likelihood of there being other burials, the tool-making site and the archaeological finds on the Hannah land. The Commission recommends that the eastern section of the CoI area be largely zoned 7(a) Special Environmental Protection and the objectives of the 7(a) zone amended to include protection of Aboriginal heritage significance. The further development of a voluntary conservation agreement is strongly supported by the Commission.

The western section of the CoI area which is also stated to be of significance to the local Aboriginal community at present lacks the necessary supporting archaeological evidence. Nevertheless, oral evidence indicated that the area would have been used for hunting and gathering, and possibly as an ochre source. Recently, artefacts from the Stages 2 to 6 areas have been placed on Stage 7 and the AIR site in soil stockpiles, after Stockland received Consents to Destroy for its Stages 2 to 6 development.

In addition, large portions of the western section of the CoI area have suffered major disturbance by earlier industrial and extractive developments. On balance, the specialist evidence is that the likelihood of intact Aboriginal archaeological evidence being found is limited to those locations where the topsoil remains largely undisturbed. However, Aboriginal archaeological sites and/or artefacts could still be found in disturbed areas notwithstanding that some archaeological investigation has been undertaken on these areas without locating significant Aboriginal sites or artefacts. Discovery of Aboriginal sites and artefacts would reinforce the Aboriginal significance of the western section. This cannot be finally determined until further Aboriginal archaeological investigations as recommended by the Commission are completed.

The Commission is satisfied it has sufficient specialist Aboriginal heritage evidence to find that the likelihood of significant Aboriginal archaeological sites or artefacts being discovered on the western section of the CoI area is low, but cannot be ruled out in the absence of further study. Aboriginal heritage also needs to be relevantly considered with other values and constraints of the CoI area. The Commission has weighed and balanced all the available evidence. It is satisfied that there is currently adequate information regarding the Aboriginal significance of the western section of the CoI area to make strategic planning decisions for that land. Unless the proposed further Aboriginal archaeological studies indicate compelling evidence that the western section of the CoI area is likely to have increased Aboriginal significance, the Commission finds some residential development appropriate in the western section. The reduced level of residential development recommended by the Commission would ensure that Aboriginal significance on the CoI area would be protected.

The Commission has assessed the values and constraints of the Cookson Plibrico site. It has concluded that while some residential development could be accommodated on that site, it would be at a reduced level from that anticipated by Council or proposed by Stockland. Coastal planning considerations relating to visual amenity, ecological values and the need to protect Aboriginal heritage prevent development on the eastern and northeastern portions of the site. The Turpentine forest must also be protected and adequate provisions made for riparian and buffer zones as well as asset protection zones on Tramway and Cooksons Creeks.

The current refractory manufacturing and handling procedures result in noise emissions which exceed the relevant noise level criteria on nearby residential lands. However, although heavy industry is generally not a suitable land use adjacent to residential development, the Cookson Plibrico operations are not inherently noisy nor do they generate excessive traffic. The results of three noise impact assessments for the Cookson Plibrico operations were tendered to the Commission. A level of uncertainty remains as to the exact extent of noise mitigation which could be achieved. Nevertheless, it is clear from the three assessments that worthwhile improvements to the present noise levels emitted could be achieved. It is likely that noise criteria could be met at most of the approved residential lots in Stages 2 to 6 and also in Stage 7, subject to installation of noise mitigation measures and a review of operating hours and procedures.

Additional noise assessments are required to resolve this issue. It also needs to be recognised that any expansion of the operations is prohibited development and would very likely generate higher noise levels. In these circumstances the Commission acknowledges that the continuation of Cookson Plibrico's operations at Sandon Pont could be considered unsustainable in the longer term. An option encouraged by Cookson Plibrico, Council, DIPNR(PlanningNSW) and Stockland is relocation of the factory, although residents object due to the loss of 80 jobs from the northern Illawarra. But given the values and constraints to development of significant areas of the Cookson Plibrico site the

Commission considers it is unlikely that sufficient revenue would be raised from sale of the remaining developable area to fund the relocation cost of \$9 million.

Should Cookson Plibrico need to relocate, further consultation with DIPNR(PlanningNSW) and Council would be necessary regarding the balance between environmental, economic and social considerations. Financial support may be appropriate if Cookson Plibrico are to relocate within the Illawarra. However, relocation should not be at the expense of important Aboriginal heritage, coastal planning and ecological values at Sandon Point.

The Commission has found in this report that certain land within the CoI area has significant ecological value. This includes the endangered SCESFC and the Turpentine forest. Parties to the Commission generally recognise that these natural features of the land require ongoing protection by suitable buffer areas. A buffer 40m wide is recommended for the SCESFC. The Turpentine forest would have a small buffer to the north and west increasing significantly to the south and east due to the Commission's recommendations to zone those latter areas 7(a) Special Environmental Protection.

Effective riparian corridors are also required to ensure that the ecological function within the creek systems is enhanced and maintained. Among other reports, planning initiatives for the Illawarra region set out in the Illawarra Escarpment Commission report resulted in the recently published *Riparian Corridor Management Study*. This Study provides guidance on the ranking of streams within the Illawarra for their environmental values as well as recommending protection zones and vegetated buffers. However, for Stockland's lands, the former DLWC(now DIPNR) has signed a Deed of Agreement relating to riparian corridor widths. The widths set out by the Deed of Agreement are considerably narrower than the widths recommended in the above Study. The Commission has reviewed the extensive relevant submissions which address riparian corridor issues. It finds that to protect the present and future ecological values and functions of the creeks flowing through the CoI area that greater weight needs to be placed on providing wider rather than narrower corridors. This particularly applies to Woodlands Creek which in the Study is classed as a Category 1 – Environmental Corridor stream for its entire length, notwithstanding that it is currently partially piped in the CoI area (the piped section is to be replaced by a rehabilitated creek). Reinforcing the ecological potential for Woodlands Creek is that land uses in its catchment are comprised of native forest (79 percent), rural (16 percent) and urban (5 percent) which is clearly indicated on Figure 12. This provides substantial opportunity to develop an important environmental corridor from the coast to the escarpment which the Commission strongly endorses.

The Commission supports Council's adoption of the *Hewitts Creek Floodplain Risk Management Study and Plan*. This study shows that the portion of the CoI area between Hewitts Creek and Woodlands Creek is floodprone as it would be inundated by a PMF flood. The flood risk on this land is considered to be medium but residential development is not precluded subject to it complying with the relevant guidelines. The Commission concurs that the habitable floor levels of residential development on the floodprone land should be 0.5m above the 1 in 100 year flood level to provide a safety margin. The Commission also supports reconstruction of the creek corridor of Woodlands Creek to convey the 1 in 100 year ARI flood in a way which is consistent with maintaining ecological functions. However, Stockland's proposal places too great an emphasis on flood conveyance, may inadequately represent peak design flood flows and compromises the aims of the *Riparian Corridor Management Study*.

Significant portions of the western sections of the CoI area are degraded as can be seen on the cover photograph. The AIR site between Hewitts and Woodlands Creek and the eastern portion of the AIR site south of Woodlands Creek are substantially degraded. Other areas of the AIR and Dairy Farmers sites, while containing stands of established vegetation, also have sections which have been degraded and are now partially revegetated. The CoI area would benefit substantially from restoration. In these circumstances it is relatively easy to conclude that even with the level of residential development proposed by Council and Stockland, there would be a net benefit. The Commission's recommendations for restoration of larger areas than proposed by either Council or Stockland and their

inclusion within a 7(a) Special Environmental Protection zone would achieve a more sustainable level of ecological function on the CoI area in the longer term.

Visual amenity and coastal planning matters are especially relevant to the CoI area. At present the land provides a green sweep from the coast to the escarpment as well as an appropriate visual setting for the important identified Aboriginal heritage values on the eastern portion of the CoI area. Residential development as proposed in both the Council's draft DCP and Stockland's draft Master Plan would severely compromise the visual amenity of the CoI area. The Commission considers the construction of apartment buildings on the eastern edges of the AIR and Cookson Plibrico sites particularly inappropriate as they would severely impose on the eastern portion of the CoI area, dominate the Aboriginal heritage values of the foreshore areas, and effectively remove the visual green sweep from the coast to the escarpment when viewed from many foreshore and backdune areas. This would not be consistent with current government coastal planning initiatives.

In all these circumstances, the Commission does not support the extent of residential development proposed by Council or Stockland, notwithstanding the importance of providing for increased residential development and Council's stated goal of guiding "any development in a way that provides for restoration of the remainder of the site". The level of residential development these parties propose would severely compromise the significant heritage and ecological values on the CoI area. Values which if not fully restored at the present time could be developed in co-operation with the community in the future. The Commission finds this opportunity should not be lost or substantially restricted. Any residential development must be consistent with conserving and enhancing the important heritage and ecological values of the CoI area as recommended in this report.

As referred to above, the Commission's recommendations mean that the CoI area would not be fully rehabilitated for some time given the reduced residential development potential. But adoption of the recommendations would ensure the values of the CoI area are protected and conserved in the long term, and the land's appropriate development potential realised to assist in initially funding the required works from an early stage.

The matters which the Commission has canvassed cover both strategic and local planning considerations. The Commission recommends an LEP approach in the first instance to set appropriate land use zonings, among other planning requirements. Significant detail would then need to be provided in development control plans and a master plan as required by SEPP 71.

The Commission recommends bringing certain land within the CoI area into public ownership over time. Dependent on the zoning, this could occur by dedication to Council for public open space, or through inclusion in a Section 94 Contribution Plan, or negotiation between Council and the landowner, or compulsory acquisition. However, as the zoning recommended by the Commission would not result in any privately owned land within the CoI area being zoned 6(a), acquisition through a Section 94 Contribution Plan is not relevant to the Commission's recommendations. The Commission recommends Council pursue the options of dedication and negotiation.

It is generally agreed by parties that a plan of management for the open space areas at Sandon Point needs to be prepared and implemented, whether these areas are zoned 6(a) or 7(a). The Commission recommends open space areas of the CoI area largely be zoned 7(a) due to their existing and potential cultural, ecological, and social values. A plan of management is essential to ensure the protection of these areas. Community consultation is an acknowledged component in developing an acceptable plan of management. Effective involvement of Council, government agencies, landowners, residents and the Aboriginal community would be essential. This report refers to the many issues which the plan of management would need to address.

The main findings and recommendations which the Commission sets out below are derived from its comprehensive review in previous sections of the report.

Aboriginal Heritage

- Aboriginal cultural and archaeological values of the CoI area are significant to the Aboriginal community and the community generally.
- The Kuradji burial site, foredune midden, tool-making site, and the artefact site on the Hannah land are significant sites in the eastern portion of the CoI area and should be protected.
- Further Aboriginal archaeological investigations and Aboriginal cultural significance assessment are necessary on the CoI area as detailed in the report.
- Funding should be made available to the Aboriginal community so that it can obtain independent advice in relation to the Aboriginal heritage significance of the CoI area.
- Aboriginal archaeological investigations should include an appropriate level of early investigation of disturbed western portions of the CoI area.
- Unless compelling evidence of Aboriginal archaeological significance in the western section of the CoI area is found, the Commission is satisfied reduced residential development in the western section could occur.
- Aboriginal archaeological investigations and Aboriginal cultural study and assessment must include meaningful and continuing involvement of interested members of the Aboriginal community. This involvement should commence from the initial preparation of a brief for the scope of further investigation, study and assessment.
- The conservation and rehabilitation of the portions of the CoI area recommended by the Commission, including the eastern portions of the AIR and Cookson Plibrico sites as well as the core riparian corridors, would begin to re-establish an important traditional Aboriginal dreaming track and trade route between the coast and the escarpment.
- Preparation and implementation of conservation management plans and voluntary conservation agreements in consultation with the Aboriginal community are available mechanisms to protect Aboriginal heritage.

Flora and Fauna

- Flora and fauna habitat having high conservation value such as the Sydney Coastal Estuary Swamp Forest Complex (SCESFC), the Turpentine forest, and core riparian areas and appropriate buffer zones should be rezoned 7(a) Special Environmental Protection.
- The buffer zoned for the SCESFC should be a minimum of 40m wide.
- High impact infrastructure should not be constructed in high conservation value areas including the SCESFC, Turpentine forest, environmental corridors, core riparian zones, and vegetated buffer zones.

Riparian Corridor Function and Planning

- Riparian corridors be restored to reasonably reflect their former natural state consistent with the categories set out in the *Riparian Corridor Management Study*.
- Woodlands Creek be restored to reasonably reflect its former natural state and profile consistent with the *Riparian Corridor Management Study*.
- Woodlands Creek be restored and maintained to ensure ecological function consistent with a major coast to escarpment wildlife corridor.
- Core riparian and wetland areas, together with appropriate buffer zones, be zoned 7(a) Special Environmental Protection.
- The Deed of Agreement between Stockland (Constructors) Pty Limited and the former Department of Land and Water Conservation (now DIPNR) concerning development setbacks from creeks not be used to determine riparian corridor widths, other than the south bank of Tramway Creek, as the Deed would not provide for sufficiently effective wildlife corridor function or adequate protection of high conservation value areas.
- Water pollution control ponds and/or wetlands should not be constructed in wetland areas, core riparian zones, or vegetated buffer zones but could be developed in asset protection zones.

- Council prepare and implement a Development Control Plan specifically to address the development, protection and maintenance of environmental corridors.
- The developer of land for residential use should provide maintenance of riparian corridors adjacent to residential development to Council's satisfaction for a minimum period of 10 years from the date of the subdivision certificate, or such longer period until the land comes into public ownership.
- DIPNR, NPWS, RTA and Council consult on the development of an Environmental Corridor along Woodlands Creek from the Coast to the Escarpment.

Floodplain Management

- Development on the CoI area must be consistent with the *Hewitts Creek Flood Study* and *Hewitts Creek Floodplain Risk Management Study and Plan*.
- The flood conveyance role of riparian corridors must be consistent with, and not compromise the ecological function of riparian corridors.
- Flood assessment in relation to development on the CoI area must assume the enlargement of the Tramway Creek and Woodlands Creek culverts under the Illawarra railway line.
- The spoil pile on the Hannah land should be removed subject to the owner's agreement and protection of the Aboriginal heritage values of the land.
- All habitable floor levels of residential dwellings are to have 0.5m freeboard/safety margin above the 1 in 100 year ARI flood level.
- Development between Hewitts Creek and Woodlands Creek is supported subject to compliance with the *Floodplain Management Manual* (2001), the *Hewitts Creek Floodplain Risk Management Plan*, and Council's draft DCP *Managing Our Flood Risks*.

Cookson Plibrico

- DIPNR, Council and Cookson Plibrico consult with each other regarding the future operation of the Cookson Plibrico facilities at Sandon Point or at another location in the Illawarra.
- If Cookson Plibrico relocate, 80 local jobs would be lost to the northern Illawarra.
- The industrial activities at the Cookson Plibrico factory have resulted in little impact on the conservation value of the remaining land and adjacent riparian areas and have probably assisted in its protection by limiting intrusion by third parties.
- The land owned by Cookson Plibrico has conservation, visual amenity, Aboriginal heritage and residential development values.
- The conservation, visual amenity and Aboriginal heritage values should not be compromised by residential development.
- The areas of the Cookson Plibrico site with residential development potential are those areas occupied by the factory and administrative buildings, roadways, and the largely cleared area in the western portion of the site.
- The Cookson Plibrico operations currently result in noise complaints from nearby residents.
- Three preliminary noise assessments have concluded that the relevant noise level criterion for some adjacent residentially zoned land are exceeded.
- Noise mitigation measures would result in a reduction in noise levels at adjacent residentially zoned land but some uncertainty remains as to whether mitigation measures would reduce noise levels to below the relevant criteria.
- Measures to mitigate noise impacts from the existing operations should be independently assessed to determine their effectiveness and whether the relevant criteria can be complied with on adjacent land zoned residential
- If the Cookson Plibrico operations are to be relocated light industrial uses for the Cookson Plibrico land should be considered to maintain employment in the northern Illawarra prior to considering residential use of the land.

Visual Amenity

- The visual amenity of the CoI area at Sandon Point is an important environmental value which requires substantial protection to be consistent with recent government coastal protection initiatives.
- The visual setting is a significant attribute for the Aboriginal cultural and spiritual heritage of the eastern section of the CoI area.
- The location, built form and density of residential development proposed in both Council's draft DCP and Stockland's draft Master Plan for the eastern portion of the western section of the CoI area would substantially detract from the visual amenity of the locality.
- Vegetation to the south and east of the disturbed eastern portion of the AIR site south of Woodlands Creek must not be cleared as it is required to provide visual screening of residential development when viewed from Aboriginal heritage and public areas to the east as well as to preserve the visual green sweep to the escarpment.

Water Quality Management

- The quality and quantity of water runoff from the portions of the CoI area developed for residential uses can be managed to protect downstream ecosystems.
- The quality of water runoff would be significantly improved with the development of portions of the CoI area compared with current runoff from degraded areas.
- Water runoff quality treatment facilities should be located outside areas of core riparian zones, high conservation value areas and the vegetated buffer zones, but may be located in asset protection zones.
- Council and DIPNR should review design requirements for runoff water pollution control facilities for sensitive lands such as the CoI area in the light of relevant current local knowledge and events.
- An effective water quality monitoring program is required to ensure downstream ecosystems are being protected.

Access and Traffic

- Wrexham Road be developed as the northern road access to the CoI area with a signalised intersection at Wrexham Road/Lawrence Hargreaves Drive.
- Sturdee Avenue and Beattie Avenue be developed as road access to the CoI area subject to a traffic and road safety study being undertaken for these roads and their intersections with the Princes Highway.
- Creek crossings not be provided at Tramway and Woodlands Creeks at this time having regard to the reduced level of residential development recommended by the Commission as well as the conservation and wildlife corridor values of these locations.
- A north-south access through the CoI area from Wrexham Road to Point Street should not be constructed at this time as access benefits do not outweigh the conservation values which would be compromised.
- Pedestrian paths and cycleways should be constructed in the CoI area linking with existing access in the east and south and to Thirroul railway station/Thirroul commercial centre.

Land Contamination

- The majority of the land within the CoI area which was contaminated has been remediated consistent with the EPA's and Council's requirements.
- Land which is contaminated could be remediated using well accepted and safe methods.
- Land which has been remediated should not pose a significant risk to human health or the environment, subject to the recommendations of the site auditor.

Bushfire Management

- Asset protection zones up to 20m wide are required to protect residential development.
- Vegetated buffer zones are inappropriate for inclusion in asset protection zones.
- Residential safety must not be compromised by restricting the width of asset protection zones to achieve increased residential development.
- Peripheral roads, pedestrian paths, cycleways and water pollution control ponds could be located in asset protection zones.

Community Liaison

- The developer should be required to establish and fund a Community Liaison Committee, which includes representation from the Aboriginal community. The Committee should meet at least monthly, and distribute information concerning planning and construction activities on the CoI area, including site audit reports, to the community. The Committee should also receive community comment and relay that information to the developer in a timely manner.

Private Certification

- DIPNR should review the operation of private certification in relation to complex staged developments such as proposed at Sandon Point, in consultation with Council.
- DIPNR should ensure that controls placed on development of the CoI area are effective in protecting the environment, particularly during development construction and until residential use is established; and that the intended environmental planning outcome is clear and cannot be compromised by private certification.

Land Uses and Planning Outcomes

- The land use zones shown on Figure 16 would ensure the appropriate balance between cultural, environmental, ecological and developmental values and constraints is achieved on the CoI area.
- An LEP approach should be adopted to set zone boundaries.
- The developable area on the AIR site south of Woodlands Creek should be set back a nominal 80 to 100m from the cadastral boundary between the AIR site and the Hannah land.
- The area of the Cookson Plibrico site recommended to remain zoned 4(a) Light Industrial is also the area the Commission finds would be suitable for residential development, subject to further Aboriginal heritage study.
- Land which has Aboriginal heritage, ecological and environmental corridor values should be zoned 7(a) Special Environmental Protection to ensure these values are appropriately protected.
- The objectives of the 7(a) zone should be revised to include the protection of both Aboriginal heritage and environmental corridor values.
- Flexible zone provisions should be excluded from any amended LEP.
- The maximum height of residential development on the CoI area should be restricted to 2 storeys, except for apartment development on the western portion of the AIR site north of Woodlands Creek which should be restricted to a maximum of 3 storeys.
- The FSR for land zoned 2(b) Medium Density Residential should remain at 0.5 to 1.
- The site coverage calculation should be all inclusive with no exclusions.
- A minimum 30 percent of each lot should be retained as deep soil areas to ensure there are adequate areas to plant vegetation.
- No apartment buildings are to be constructed south of Woodlands Creek.
- Apartment buildings may be constructed on the western portions of the AIR site north of Woodlands Creek.

Future Management (Options)

- To ensure the values of the land zoned 6(a) and 7(a) are protected a plan of management prepared by Council is required to include, but not be limited to:
 - An Aboriginal heritage protection plan
 - A flora and fauna conservation plan
 - An environmental corridor development plan
 - A riparian corridor vegetation management plan
 - A foreshore management plan
 - A revegetation management plan
- Vegetation in core riparian zones must be managed to ensure flooding impacts above design levels do not occur.
- An integrated management plan must be prepared with any master plan submitted for the Minister's approval under SEPP 71.
- Integrated management plans must be consistent with any plan of management prepared and implemented by Council for the CoI area.
- Land zoned 7(a) should be brought into public ownership over time either by dedication or through negotiation.