

Sydney Regional Environmental Plan No 20—Hawkesbury-Nepean River (No 2—1997) (1997 EPI 592)

[1997-592]



New South Wales

Status Information

Currency of version

Historical version for 7 November 1997 to 14 December 2008 (accessed 26 June 2024 at 16:44)

Legislation on this site is usually updated within 3 working days after a change to the legislation.

Provisions in force

The provisions displayed in this version of the legislation have all commenced.

Authorisation

This version of the legislation is compiled and maintained in a database of legislation by the Parliamentary Counsel's Office and published on the NSW legislation website, and is certified as the form of that legislation that is correct under section 45C of the [Interpretation Act 1987](#).

File last modified 11 November 1997

Sydney Regional Environmental Plan No 20—Hawkesbury-Nepean River (No 2—1997) (1997 EPI 592)



New South Wales

Contents

Part 1 Introduction	4
1 Name of plan	4
2 Where this plan applies	4
3 Aim of this plan.....	4
Part 2 General planning considerations, specific planning policies and recommended strategies	5
4 Application of general planning considerations, specific planning policies and recommended strategies	5
5 General planning considerations	5
6 Specific planning policies and recommended strategies	5
7 Effect of Part 2	13
Part 3 Development controls	13
8 Development controls	13
9 How is consultation carried out?.....	14
10 Excepted land.....	15
11 Development controls	15
Part 4 Miscellaneous	26

12 Relationship to other environmental planning instruments.....	26
13 Definitions	27
14 Savings	27
Schedule 1 Items of non-Aboriginal heritage.....	28
Schedule 2 Places where extractive industry is prohibited.....	29
Schedule 3 Amendment of environmental planning instruments.....	29
Dictionary	30

Sydney Regional Environmental Plan No 20—Hawkesbury-Nepean River (No 2—1997) (1997 EPI 592)



New South Wales

I, the Minister for Urban Affairs and Planning, make the following regional environmental plan under the *Environmental Planning and Assessment Act 1979*. (P95/00124)

CRAIG KNOWLES MP Minister for Urban Affairs and Planning
Sydney, 21 October 1997

Part 1 Introduction

1 Name of plan

This plan is *Sydney Regional Environmental Plan No 20—Hawkesbury-Nepean River (No 2—1997)*.

2 Where this plan applies

(1) This plan applies to certain land in the Greater Metropolitan Region that is within the following local government areas:

Baulkham Hills, Blacktown, Blue Mountains, Camden, Campbelltown, Fairfield, Gosford, Hawkesbury, Hornsby, Ku-ring-gai, Liverpool, Penrith, Pittwater, Warringah, Wollondilly.

The location of the land is shown on sheet 1 of the map and the land is shown in detail on sheets 2–42 of the map.

(2) This plan does not apply to the land to which *Sydney Regional Environmental Plan No 11—Penrith Lakes Scheme* applies.

3 Aim of this plan

The aim of this plan is to protect the environment of the Hawkesbury-Nepean River system by ensuring that the impacts of future land uses are considered in a regional context.

Part 2 General planning considerations, specific planning policies and recommended strategies

4 Application of general planning considerations, specific planning policies and recommended strategies

- (1) The general planning considerations set out in clause 5, and the specific planning policies and related recommended strategies set out in clause 6 which are applicable to the proposed development, must be taken into consideration:
 - (a) by a **consent authority** determining an application for consent to the carrying out of development on land to which this plan applies, and
 - (b) by a person, company, public authority or a company State owned corporation proposing to carry out development which does not require development consent.
- (2) Those considerations, policies and strategies should be taken into consideration in the preparation of each environmental planning instrument and development control plan that applies to land to which this plan applies.

5 General planning considerations

The general planning considerations relevant for this Part are:

- (a) the aim of this plan, and
- (b) the strategies listed in the Action Plan of the Hawkesbury-Nepean Environmental Planning Strategy, and
- (c) whether there are any feasible alternatives to the development or other proposal concerned, and
- (d) the relationship between the different impacts of the development or other proposal and the environment, and how those impacts will be addressed and monitored.

6 Specific planning policies and recommended strategies

The specific planning policies and recommended strategies for this plan are as follows:

(1) Total catchment management

Policy: Total catchment management is to be integrated with environmental planning for the catchment.

Strategies:

- (a) Refer the application or other proposal for comment to the councils of each adjacent or downstream local government area which is likely to suffer a significant adverse environmental effect from the proposal.

- (b) Consider the impact of the development concerned on the catchment.
- (c) Consider the cumulative environmental impact of development proposals on the catchment.

(2) Environmentally sensitive areas

Policy: The environmental quality of environmentally sensitive areas must be protected and enhanced through careful control of future land use changes and through management and (where necessary) remediation of existing uses.

Note—

Environmentally sensitive areas in the Hawkesbury-Nepean catchment are: the river, riparian land, escarpments and other scenic areas, conservation area subcatchments, national parks and nature reserves, wetlands, other significant floral and faunal habitats and corridors, and known and potential acid sulphate soils.

Strategies:

- (a) Rehabilitate parts of the riverine corridor from which sand, gravel or soil are extracted so that attached aquatic plant beds are replaced and water quality and faunal habitats improved.
- (b) Minimise adverse impacts on water quality, aquatic habitats, riverine vegetation and bank stability.
- (c) Minimise direct and indirect adverse impacts on land reserved or dedicated under the *National Parks and Wildlife Act 1974* or the *Forestry Act 1916* and conservation area sub-catchments in order to protect water quality and biodiversity.
- (d) Protect wetlands (including upland wetlands) from future development and from the impacts of land use within their catchments.
- (e) Consider the need to include buffer zones (such as adequate fire radiation zones) for proposals on land adjacent to land reserved or dedicated under the *National Parks and Wildlife Act 1974* or the *Forestry Act 1916*.
- (f) Consider the views of the Director-General of National Parks and Wildlife about proposals for land adjacent to land reserved or dedicated under the *National Parks and Wildlife Act 1974*.
- (g) Consideration should be given to the impact of the development concerned on the water table and the formation of acid sulphate soils.
- (h) New development in conservation area sub-catchments should be located in areas that are already cleared.

(3) Water quality

Policy: Future development must not prejudice the achievement of the goals of use of the river for primary contact recreation (being recreational activities involving direct water contact, such as swimming) and aquatic ecosystem protection in the river system. If the quality of the receiving waters does not currently allow these uses, the current water quality must be maintained, or improved, so as not to jeopardise the achievement of the goals in the future. When water quality goals are set by the Government these are to be the goals to be achieved under this policy.

Note—

Aquatic ecosystems and **primary contact** recreation have the same meanings as in the document entitled *Australian Water Quality Guidelines for Fresh and Marine Waters*, published in 1992 by the Australian and New Zealand Environment and Conservation Council.

Strategies:

- (a) Quantify, and assess the likely impact of, any predicted increase in pollutant loads on receiving waters.
- (b) Consider the need to ensure that water quality goals for primary contact recreation and aquatic ecosystem protection are achieved and monitored.
- (c) Approve development involving primary contact recreation or the withdrawal of water from the river for human contact (not involving water treatment), such as showers, only in locations where water quality is suitable (regardless of water temperature).
- (d) Do not carry out development involving on-site disposal of sewage effluent if it will adversely affect the water quality of the river or groundwater. Have due regard to the nature and size of the site.
- (e) Develop in accordance with the land capability of the site and do not cause land degradation.
- (f) Consider the need for an Erosion and Sediment Control Plan (to be in place at the commencement of development) where the development concerned involves the disturbance of soil.
- (g) Minimise or eliminate point source and diffuse source pollution by the use of best management practices.
- (h) Site and orientate development appropriately to ensure bank stability. Plant appropriate native vegetation along banks of the river and tributaries of the river, but not so as to prevent or inhibit the growth of aquatic plants in the river, and consider the need for a buffer of native vegetation.

- (i) Consider the impact of the removal of water from the river or from groundwater sources associated with the development concerned.
- (j) Protect the habitat of native aquatic plants.

(4) Water quantity

Policy: Aquatic ecosystems must not be adversely affected by development which changes the flow characteristics of surface or groundwater in the catchment.

Strategies:

- (a) Future development must be consistent with the interim or final river flow objectives that are set for the time being by the Government.
- (b) Ensure the amount of stormwater run-off from a site and the rate at which it leaves the site does not significantly increase as a result of development. Encourage on-site stormwater retention, infiltration and (if appropriate) reuse.
- (c) Consider the need for restricting or controlling development requiring the withdrawal or impoundment of water because of the effect on the total water budget of the river.
- (d) Consider the impact of development on the level and quality of the water table.

(5) Cultural heritage

Policy: The importance of the river in contributing to the significance of items and places of cultural heritage significance should be recognised, and these items and places should be protected and sensitively managed and, if appropriate, enhanced.

Strategies:

- (a) Encourage development which facilitates the conservation of heritage items if it does not detract from the significance of the items.
- (b) Protect Aboriginal sites and places of significance.
- (c) Consider an Aboriginal site survey where predictive models or current knowledge indicate the potential for Aboriginal sites and the development concerned would involve significant site disturbance.
- (d) Consider the extent to which heritage items (either identified in other environmental planning instruments affecting the subject land or listed in Schedule 2) derive their heritage significance from the river.

(6) Flora and fauna

Policy: Manage flora and fauna communities so that the diversity of species and genetics within the catchment is conserved and enhanced.

Strategies, generally:

- (a) Conserve and, where appropriate, enhance flora and fauna communities, particularly threatened species, populations and ecological communities, aquatic habitats, wetland flora, rare flora and fauna, riverine flora, flora with heritage value, habitats for indigenous and migratory species of fauna, and existing or potential fauna corridors.
- (b) Locate structures where possible in areas which are already cleared or disturbed instead of clearing or disturbing further land.
- (c) Minimise adverse environmental impacts, protect existing habitat and, where appropriate, restore habitat values by the use of management practices.
- (d) Consider the impact on ecological processes, such as waste assimilation and nutrient cycling.
- (e) Consider the range of flora and fauna inhabiting the site of the development concerned and the surrounding land, including threatened species and migratory species, and the impact of the proposal on the survival of threatened species, populations and ecological communities, both in the short and longer terms.
- (f) Consider the need to provide and manage buffers, adequate fire radiation zones and building setbacks from significant flora and fauna habitat areas.
- (g) Consider the need to control access to flora and fauna habitat areas.
- (h) Consider the need to maintain corridors for fish passage, and protect spawning grounds and gravel beds.

Strategies for wetlands:

- (i) Maintain the ability of wetlands to improve the quality of water entering the river through the filtering of sediments and the absorption of nutrients.
- (j) Maintain the ability of wetlands to stabilise soils and reduce bank erosion.
- (k) Maintain the ability of wetlands to reduce the impact of flooding downstream through the retention of floodwaters.
- (l) Maintain a variety of wetland flora and fauna species in the region and consider the scarcity of particular species on a national basis.
- (m) Encourage the appropriate management of wetlands, including monitoring and

weed control.

- (n) Provide opportunities for recreation, scientific research and education where they are compatible with the conservation of wetlands.
- (o) Consider the need to protect and improve the quality and quantity of surface water and groundwater entering wetlands by controlling development in the catchment of wetlands.
- (p) Consider the desirability of protecting any wetlands of local significance which are not included on the map.
- (q) Consider the desirability of protecting or, if necessary, actively managing, constructed wetlands if they have significant conservation values or make a significant contribution to improvements in water quality.

(7) Riverine scenic quality

Policy: The scenic quality of the riverine corridor must be protected.

Strategies:

- (a) Maintain areas of extensive, prominent or significant vegetation to protect the character of the river.
- (b) Ensure proposed development is consistent with the landscape character as described in the Scenic Quality Study.
- (c) Consider the siting, setback, orientation, size, bulk and scale of and the use of unobtrusive, non-reflective material on any proposed building or work, the need to retain existing vegetation, especially along river banks, slopes visible from the river and its banks and along the skyline, and the need to carry out new planting of trees, and shrubs, particularly locally indigenous plants.
- (d) Consider the need for a buffer between new development and scenic areas of the riverine corridor shown on the map as being of significance beyond the region (which are also scenic areas of significance for the region) or so shown as being of regional significance only.
- (e) Consider the need for controls or conditions to protect those scenic areas.
- (f) Consider opportunities to improve riverine scenic quality.

(8) Agriculture/aquaculture and fishing

Policy: Agriculture must be planned and managed to minimise adverse environmental impacts and be protected from adverse impacts of other forms of development.

Note—

Refer also to items (1)-(7) and (12) for relevant strategies.

Strategies:

- (a) Give priority to agricultural production in rural zones.
- (b) Ensure zone objectives and minimum lot sizes support the continued agricultural use of Class 1, 2 and 3 Agricultural Land (as defined in the Department of Agriculture's Agricultural Land Classification Atlas) and of any other rural land that is currently sustaining agricultural production.
- (c) Incorporate effective separation between intensive agriculture and adjoining uses to mitigate noise, odour and visual impacts.
- (d) Protect agricultural sustainability from the adverse impacts of other forms of proposed development.
- (e) Consider the ability of the site to sustain over the long term the development concerned.
- (f) Consider the likely effect of the development concerned on fish breeding grounds, nursery areas, commercial and recreational fishing areas and oyster farming.

(9) Rural residential development

Policy: Rural residential development should not reduce agricultural sustainability, contribute to urban sprawl, or have adverse environmental impacts (particularly on the water cycle or on flora or fauna).

Note—

Refer also to items (1)-(7) and (12) for relevant strategies.

Strategies:

- (a) Give priority to agricultural production in rural zones.
- (b) When considering a proposal for the rezoning or subdivision of land which will increase the intensity of development of rural land (for example, by increasing cleared or hard surface areas) so that effluent equivalent to that produced by more than 20 people will be generated, consider requiring the preparation of a Total Water Cycle Management Study or Plan.
- (c) Maintain or introduce appropriate separation between rural residential use and agricultural use on the land that is proposed for development.
- (d) Do not locate development in areas identified for future urban purposes in the Metropolitan Strategy.

- (e) Consider the suitability of the land for keeping livestock, whether or not for commercial purposes, and appropriate mitigating measures to prevent land degradation.
- (f) Consider the ability of the land to accommodate on-site effluent disposal in the long term.
- (g) Consider any adverse environmental impacts of infrastructure associated with the development concerned.

(10) Urban development

Policy: All potential adverse environmental impacts of urban development must be assessed and controlled.

Note—

Refer also to items (1)–(7) and (12) for relevant strategies.

Strategies:

- (a) When considering a proposal for the rezoning or subdivision of land which will increase the intensity of development of that land (for example, by increasing cleared or hard surface areas) so that effluent equivalent to that produced by more than 2,500 people will be generated, consider requiring the preparation of a Total Water Cycle Management Study or Plan.
- (b) Consider urban design options to reduce environmental impacts (such as variable lot sizes and shapes, and the clustering of development).

(11) Recreation and tourism

Policy: The value of the riverine corridor as a significant recreational and tourist asset must be protected.

Note—

Refer also to items (1)–(7) and (12) for relevant strategies.

Strategies:

- (a) Provide a wide range of recreational opportunities along the river which are consistent with conserving the river's natural values and character.
- (b) Plan and manage recreational and tourist developments, and associated access points, cycleways and footpaths, so as to minimise any adverse environmental impacts on the river. Locate them where river banks are stable, away from river shallows, major beds of attached aquatic plants or fish breeding areas, where the proposed activities do not conflict with surrounding recreational activities and where significant flora and fauna habitats will not be adversely affected. The upgrading of existing public access to the river is to be preferred over the creation

of new access points.

- (c) Minimise conflicts between recreational uses.
- (d) Consider the availability of, or need to provide, land for vehicle parking and for suitable access (including access for cars and buses), for boat service areas and for water, electricity and sewage disposal.
- (e) Consider the environmental impact of ancillary services for recreation and tourist developments, such as amenities blocks and vehicle parking.
- (f) Consider the visual impact of development on the surrounding area.

(12) Metropolitan strategy

Policy: Development should complement the vision, goal, key principles and action plan of the Metropolitan Strategy.

Strategies:

- (a) Consider the impacts of transport infrastructure proposals on water quality and air quality.
- (b) Consider the impacts of metropolitan waste disposal on water quality.
- (c) Consider the impacts of development on air quality.
- (d) Consider the need for waste avoidance, waste reduction, reuse and recycling measures.
- (e) Consider the implications of predicted climate change on the location of development and its effect on conservation of natural resources.

7 Effect of Part 2

This Part is not intended to create an offence against the Act.

Note—

The intention of this clause is to clarify that Part 2 will not create a *criminal* offence under Division 4 of Part 6 of the [Environmental Planning and Assessment Act 1979](#). The clause does not affect the ability to pursue civil proceedings under Division 3 of that Part (sections 122-124 of that Act) or otherwise.

Part 3 Development controls

8 Development controls

- (1) **Prohibited development** Development defined in an item in clause 11 that is prohibited is indicated in the item by the word *Prohibited*.
- (2) **Development requiring consent** Any such development that may be carried out only with development consent is indicated in the item by the words *Consent required*. The

council of the area in which development is proposed to be carried out is the consent authority for that development for the purposes of this plan, except where the Act provides otherwise.

- (3) **Development requiring concurrence** Any such development that may be carried out only with development consent granted with the concurrence of the Director is indicated in the item by the word *Concurrence*, together with a reference to the Director.
- (4) **Development requiring consultation** Any such development for which development consent may be granted only after consultation with a particular person or organisation has been undertaken is indicated in the item by the word *Consultation*, together with a reference to the relevant person or organisation.
- (5) **Development requiring certain matters to be considered** The consent authority must not grant consent to the carrying out of any such development if the words *Additional matters for consideration by the consent authority* appear in the item until it has considered those matters in addition to the matters specified in section 90 of the Act.

Note—

The matters required to be taken into consideration by Part 2 and any relevant matters listed in any other environmental planning instrument must also be taken into consideration by the consent authority.

Matters that must be considered by the Director, if the Director's concurrence to a grant of consent is required by this plan, in determining whether to grant that concurrence are indicated in the Table by the words *Matters for consideration by the concurrence authority*.

- (6) **Development for which consent may be granted in special circumstances** Any circumstances in which consent may be granted to the carrying out of the particular development even though the development is not in accordance with the other provisions of this plan are indicated in the item by the words *Special circumstances*.
- (7) **Designated development** Any such development declared to be designated development for the purposes of the Act is indicated in the item by the words *Designated development*.

9 How is consultation carried out?

- (1) When a consent authority is required by this plan to carry out consultation, the consent authority must send a copy of the development application and of any documentation subsequently required by the consent authority for the purpose of determining the application to each of the persons to be consulted within 7 days after the consent authority has accepted the development application or received the additional documentation.
- (2) The requirement for consultation with a person is complied with when the consent authority has taken into consideration any written comments made by the person

received by the consent authority within 28 days after the copy was sent to the person.

- (3) The purpose of consultation with the Hawkesbury-Nepean Catchment Management Trust is to obtain advice on the matters for consideration listed in the item of clause 11 for the type of development proposed.

10 Excepted land

This Part does not apply to land reserved or dedicated under the [National Parks and Wildlife Act 1974](#) or dedicated under the [Forestry Act 1916](#).

11 Development controls

The following items set out particulars for the development controls imposed by this Part:

Note—

These controls apply in addition to those in any other relevant environmental planning instrument.

(1) Caravan parks or camping grounds

Definition:

Development for the purpose of use of land for caravans or other moveable dwellings requiring an approval under Part 1 of Chapter 7 of the [Local Government Act 1993](#).

Consent required.

(2) Composting facilities or works

Definition:

Development for the purpose of composting facilities or works described in Schedule 3 (Designated Development) to the [Environmental Planning and Assessment Regulation 1994](#).

Consent required.

Consultation:

Hawkesbury-Nepean Catchment Management Trust.

Additional matters for consideration by the consent authority:

- (a) Any potential for groundwater contamination.
- (b) The adequacy of the proposed leachate management system and surface water controls.

(3) Buildings, works or land uses within conservation area sub-catchments

Note—

Conservation area subcatchments are those that are subject to relatively minimal human interference and are consequently in a reasonably pristine environmental condition.

Definition:

Development for the purpose of any building, work or land use, including clearing, in the sub-catchments of Glenbrook and Erskine Creek, Webbs Creek, the Colo River, the Grose River and the Macdonald River, as shown on the map, except for buildings, works or land uses that the consent authority considers to be minor and do not involve clearing or on-site effluent disposal.

Consent required.

Additional matters for consideration by the consent authority:

The need to prevent adverse impacts on the near pristine condition of these sub-catchments.

(4) Remediation of contaminated land

Definition:

Removing soil or other deposits from, or otherwise remediating, contaminated land. For the purposes of this definition, contaminated land means land on which hazardous substances occur at concentration levels above background levels, where an assessment (carried out in accordance with guidelines circulated to councils by the Department) has indicated the substances pose, or are likely to pose, an immediate or long-term hazard to human health or to the environment.

Consent required.

(5) Extractive industries

Definition:

Extractive industry carried out on land described in Schedule 2, except for development described in item (6).

Prohibited.

(6) Extractive industries—maintenance dredging and extractive operations

Definition:

- (a) Dredging operations to ensure that the river is navigable from Broken Bay to Windsor Bridge, if those operations do not create a channel that did not previously

exist, or

- (b) Dredging operations carried out in the river downstream of the Wallacia Bridge as a consequence of, and ancillary to, works for flood mitigation, bank stabilisation, the construction of bridges or other instream structures (such as marinas) or the withdrawal of water (whether or not the withdrawal is licensed), where extraction is necessary to carry out the works.

Consent required.

Concurrence:

The Director and, if Part 4 of the Act requires, the Director-General of National Parks and Wildlife.

Consultation:

Director-General of National Parks and Wildlife, if the Director-General's concurrence is not required,

Hawkesbury-Nepean Catchment Management Trust.

Matters for consideration by the Director as concurrence authority:

Reports on the following:

- (a) whether sufficient attention has been given by the consent authority to the effect of extraction on river dynamics, instream structures and, in particular, the effect on water clarity and turbidity, water velocity, river enlargement and light penetration,
- (b) the desirability of maintaining river shallows to protect and support the aquatic habitat,
- (c) the likely effect of extraction on recreational opportunities available in the region,
- (d) the advantages of using cutter-suction methods as against drag-line methods in carrying out the extraction,
- (e) the likely effect of the proposed development on attached aquatic plant colonisation and, in particular, the desirability of:
- confining extractive operations to small sections of the Hawkesbury-Nepean River which do not contain those colonies, and
 - not permitting extractive operations in large sections of those rivers, and
 - re-establishing attached aquatic plants if destroyed by the development,

- (f) the need to protect fish breeding grounds, commercial and recreational fishing areas and oyster farming,
- (g) whether the proposed development is appropriate to mitigate the problem necessitating the development without creating a similar problem elsewhere in the Hawkesbury or Nepean River,
- (h) any alternative means of undertaking the works which would reduce the need for extraction,
- (i) the necessity to permanently remove materials from those rivers rather than relocating them within those rivers, especially for the purpose of rehabilitating areas of former extractive operations,
- (j) the potential for dredging to bring to the surface pollutants or anoxic sediment that may result in the formation of acid sulphate soils,
- (k) whether, in the circumstances, sufficient understanding exists of the likely impact of the works on the river,
- (l) any representations made by a public authority.

(7) Filling

Definition:

Filling of land, including submerged aquatic land, by raising the ground level through disposal of spoil from any landfill method (such as mining, dredging or refuse dumping), whether or not to enable the construction of a road or the erection of buildings or pylons or any other structure, where filling exceeds 1 metre in depth, or an area of 100 square metres.

Consent required.

(8) Potentially hazardous or offensive industries

Definition:

Use of land for the purpose of:

- (a) a hazardous industry, or
- (b) a hazardous storage establishment, or
- (c) an offensive industry, or
- (d) an offensive storage establishment,

(as defined in *State Environmental Planning Policy No 33—Hazardous and Offensive Development*) which is situated on a floodway.

Prohibited.

(9) Items of non-Aboriginal heritage

Definition:

The following, when carried out in relation to anything listed in Schedule 1 as a heritage item:

- (a) demolishing a building or work,
- (b) altering a building or work, except changes resulting from any maintenance necessary for its ongoing protective care which do not adversely affect its heritage significance,
- (c) damaging or moving a relic, including excavation for the purpose of exposing or moving a relic,
- (d) damaging or despoiling a place,
- (e) erecting a building on, or subdividing, land on which a building, work or relic is situated or that comprises a place.

Consent required.

Consultation:

The Director (but only for demolition).

Special circumstances:

Consent may be granted to use a building that is a heritage item, or the land on which it is erected, for any purpose, if the consent authority is satisfied that the use would have little or no adverse effect on the environment or the amenity of the locality, and the conservation of the building depends on granting consent.

(10) Intensive horticultural establishments

Definition:

Use of a place to grow a commercial crop of plants or fungi, whether under cover or in the open, using intensive agricultural systems such as hydroponics or a sprinkler system (but not use of a place to grow produce for personal household consumption or enjoyment) which in the opinion of the consent authority has the potential to impact significantly on the total water cycle.

Consent required.

(11) Intensive animal industries

Definition (a):

Use of a building or place for holding goats, poultry or other livestock in a confined area to be reared or fattened (wholly or substantially) on prepared or manufactured feed which, without limiting the generality of the above, may consist of or include:

- (a) a poultry farm, or
- (b) a feedlot, or
- (c) a building or place used for fish farming (which may consist of or include farming of crustaceans), or
- (d) a piggery,

but not use of a building or place for the keeping of livestock or poultry intended solely for personal consumption or enjoyment by the owner or occupier of the building or place that is not included in this item by definition (b).

Development control:

Prohibited if carried out within a floodway.

Consent required in all other cases.

Definition (b):

Use of:

- (a) a dairy farm, or
- (b) a horse training and boarding establishment,

being a building or place used for holding animals in a confined area for rearing or fattening (wholly or substantially) on prepared or manufactured feed but not a building or place used for keeping animals intended solely for personal consumption or enjoyment by the owner or occupier of the building or place.

Development control:

Consent required.

Additional matters for consideration by the consent authority before granting a consent required by this item:

- (a) The need for farm management, including the use of appropriate best management practices, to mitigate the impact of the development on the water

quality of the river.

- (b) For development on flood prone land, the likely additional impact of that development on the river during a flood event.

(12) Manufactured home estates

Definition:

Development for the purpose of placing of manufactured homes requiring an approval under Part 1 of Chapter 7 of the *Local Government Act 1993*, except where they will be located on land which is zoned for residential purposes.

Consent required.

(13) Marinas

Definition:

Development for the purpose of a pontoon, jetty, pier or other structure or apparatus providing berths for boats, and adjoining land used for any support facilities.

Consent required.

Consultation:

Hawkesbury-Nepean Catchment Management Trust.

Additional matters for consideration by the consent authority:

- (a) The need for a condition of consent requiring centralised pumping stations.
- (b) Whether the proposed development will have an adverse effect on drainage patterns or cause shoreline erosion or accretion.
- (c) Whether the proposed development will have an adverse effect on any natural wetlands or flora and fauna habitats.
- (d) Whether there are satisfactory arrangements for the collection, storage, treatment and subsequent disposal of sewage, liquid wastes and bilge water.
- (e) Whether the proposed development incorporates measures to prevent the escape into the waterway of fuels, oils, grease, anti-fouling chemicals and other chemicals.
- (f) Whether the water depth adjacent to any proposed marina or other related land and water shoreline facility is adequate, and if not, the adequacy of the proposed means by which water depth will be maintained.

(14) Recreational facilities

Definition:

Development for the purpose of a building, work or place used (whether or not for commercial gain) for sporting activities, recreation or leisure activities, being a building, work or place that is situated within the river or on land:

- (a) that adjoins the river or a tributary of the river, or
- (b) that is flood prone land.

Consent required.

(15) Land uses in or near the river

Definition:

All uses in the river or a tributary of the river, or within 40 metres of the high water mark of the river or a tributary of the river where it is tidal or within 40 metres of the bank where it is non-tidal. This includes clearing and the construction and use of piers, wharves, boat sheds or other structures which have direct structural connection to the bank or bed of the river or a tributary of the river.

Consent required.

Additional matters for consideration by the consent authority:

- (a) The need to locate access points where riverbanks are stable, away from river shallows and major beds of attached aquatic plants, away from fishing grounds and fish breeding areas, where the proposed activities do not conflict with surrounding recreational activities, and where significant fauna and wetland habitats will not be adversely affected.
- (b) The need to require remedial works, such as the re-establishment of flora and fauna habitats.
- (c) The potential for use of the land as a buffer to filter water entering the river.
- (d) The need for an Erosion and Sediment Control Plan.
- (e) The need for a Vegetation Management Plan.

(16) Land uses in riverine scenic areas

Definition:

The following in scenic areas of the riverine corridor shown on the map as being of significance beyond the region (which are also scenic areas of significance for the region) or so shown as being of regional significance only:

- (a) subdivision,
- (b) clearing,
- (c) erection of a structure greater than 50 sq m in area or over 1 storey in height,
- (d) carrying out of works for the purpose of stabilising the riverbank.

Consent required.

Additional matters for consideration by the consent authority:

- (a) The need to prevent large scale, high density or visually intrusive development on waterfront land or on slopes and ridgetops which are visible from the river or the surrounding visual catchment. (This requires consideration of the proposed form and siting of buildings, of the colours and building materials used, and of landscaping.)
- (b) Whether the materials used in stabilising the banks are consistent with the scenic character of the area as described in the Scenic Quality Study.
- (c) Whether the development will damage the banks of the river or creeks.
- (d) Whether the development is adequately set back from the river.
- (e) Whether it is necessary and appropriate to increase public recreational and visual access to the river.
- (f) The need for conditions of consent to protect the scenic character, such as conditions requiring tree planting.
- (g) Whether any proposed works will improve scenic quality by repairing degradation.

(17) Sewerage systems or works

Definition:

Development for the purpose of any sewerage system or work which stores, treats or disposes of sewage (including domestic on-site disposal systems that are ancillary to development which requires consent) but not including a public utility undertaking.

Consent required.

Consultation:

Hawkesbury-Nepean Catchment Management Trust for systems or works described in Schedule 3 (Designated Development) to the *Environmental Planning and Assessment Regulation 1994*.

Additional matters for consideration by the consent authority:

- (a) Whether the proposed development will be capable of connection to a Sydney Water Corporation Limited or council sewerage system either now or in the future.
- (b) The suitability of the site for on-site disposal of effluent or sludge and the ability of the sewerage systems or works to operate over the long-term without causing significant adverse effects on adjoining property.
- (c) The likely effect of any on-site disposal area required by the proposed development on:
 - any water bodies in the vicinity (including dams, streams and rivers), or
 - any mapped wetlands, or
 - any groundwater, or
 - the floodplain.
- (d) The scope for recycling and reusing effluent or sludge on the site.
- (e) The adequacy of wet weather storage and the wet weather treatment capacity (if relevant) of the proposed sewerage system or works.
- (f) Downstream effects of direct discharge of effluent to watercourses.
- (g) The need for ongoing monitoring of the system or work.

(18) Waste management facilities or works

Definition:

Development for the purpose of waste management facilities or works described in Schedule 3 (Designated Development) to the *Environmental Planning and Assessment Regulation 1994*.

Consent required.

Consultation:

Hawkesbury-Nepean Catchment Management Trust.

Additional matters for consideration by the consent authority:

- (a) Any potential for groundwater contamination.
- (b) The adequacy of the proposed leachate management system and surface water controls.
- (c) The long-term stability of the final landform and the adequacy of the site

management plan.

- (d) If extraction of material is involved in the creation or other development of the waste management site, whether the extractive operation will have an adverse impact on the river system.

(19) Development in mapped wetlands

Definition:

The following, when carried out within wetland shown on the map:

- (a) clearing,
- (b) constructing a levee or carrying out, building, enlarging or extending an earthwork, bund wall or similar structure so as to change or impede surface drainage or tidal action,
- (c) draining (including significant lowering of the water level), constructing, deepening, extending, opening, installing or laying any canal, drain or pipe,
- (d) filling by raising the ground level through disposal of spoil from any landfill method (such as mining, dredging or refuse dumping), whether or not to enable the construction of a road or the erection of buildings or pylons or any other structure,
- (e) subdivision of land.

Designated development unless the consent authority is satisfied that the development will be carried out on land in an ephemeral wetland shown on the map or carried out for the purpose of restoring or rehabilitating a mapped wetland.

Consent required.

Concurrence:

The Director or, if Part 4 of the Act requires, the Director-General of National Parks and Wildlife.

Consultation:

Director-General of National Parks and Wildlife, if the Director-General's concurrence is not required,

Hawkesbury-Nepean Catchment Management Trust,

The Director, if the Director's concurrence is not required.

Additional matters for consideration by the consent authority:

- (a) A Vegetation Management Plan is required for restoration or rehabilitation of a wetland and for any development in an ephemeral wetland.
- (b) Whether a Vegetation Management Plan should also be required for any development other than restoration or rehabilitation in a wetland that is not an ephemeral wetland.
- (c) Whether the development is likely to contaminate the soil resulting in a likely adverse impact on water quality when the wetland floods.

Matters for consideration by the Director as concurrence authority:

- (a) Whether any feasible alternatives exist on the site to the carrying out of the proposed development.
- (b) Any representations made by a public authority to the concurrence authority within the period referred to in section 80 of the Act.
- (c) The environmental effects of the proposed development, including the effect on:
 - the growth of native plant communities, and
 - survival of native faunal populations, and
 - the provision and quality of habitats for indigenous and migratory species of fauna, and
 - the surface and groundwater characteristics (including salinity and water quality) of the mapped wetland site on which the development is proposed to be carried out, and of the surrounding land.
- (d) Whether adequate safeguards and rehabilitation measures have been, or will be, made or taken to protect the environment.
- (e) Whether the development is likely to disturb acid sulphate soils either as a direct or indirect result of excavation or as a result of lowering the water table, or for a combination of those reasons, and the consequences of the disturbance.
- (f) Whether any other wetlands are in the vicinity of the mapped wetland site to which the development application relates and the appropriateness of imposing conditions requiring the carrying out of works to preserve or enhance the value of those other wetlands.

Part 4 Miscellaneous

12 Relationship to other environmental planning instruments

- (1) This plan:

- (a) repeals *Sydney Regional Environmental Plan No 20—Hawkesbury-Nepean River*, and
- (b) does not apply to land to which *Sydney Regional Environmental Plan No 11—Penrith Lakes Scheme* applies, and
- (c) amends the following environmental planning instruments as set out in Schedule 3:

State Environmental Planning Policy No 4—Development Without Consent,

State Environmental Planning Policy No 46—Protection and Management of Native Vegetation,

Sydney Regional Environmental Plan No 9—Extractive Industry (No 2).

- (2) This plan applies in addition to any other environmental planning instrument that applies to land to which this plan applies.
- (3) If there is an inconsistency between this plan and another environmental planning instrument made before this plan, this plan prevails to the extent of the inconsistency.
- (4) However, this plan does not permit development which is prohibited by another environmental planning instrument or remove or reduce any development standard or other restriction imposed by another such instrument that affects how, when or where development is to be carried out.

13 Definitions

- (1) This plan adopts the *Environmental Planning and Assessment Model Provisions 1980*. Other terms used in this plan are defined in the dictionary at the end of this plan.
- (2) The list of contents and the notes in this plan do not form part of this plan.

14 Savings

The provisions of this plan do not apply to or in respect of:

- (a) a development application or an application for approval of an activity that was lodged with a consent authority or determining authority, but that was not finally determined, before the commencement of this plan, or
- (b) the development or activity allowed to be carried out by a consent or an approval granted in response to any such application (but only if the consent or approval is in fact granted) or in response to an application for a consent or approval of an activity by a determining authority granted before that commencement.

Schedule 1 Items of non-Aboriginal heritage

(Referred to in item (5) of clause 6 and item (9) of clause 11)

Note—

This Schedule includes those items which were identified in former SREP 20 and have not since been protected under local environmental planning instruments.

Area of Wollondilly

- Nepean River Weir, Maldon
- Camden Park Estate, Elizabeth Macarthur Avenue, Camden
- Central Creamery, Menangle

City of Campbelltown

- Menangle Weir, Menangle
- Menangle Railway Bridge, Menangle
- Menangle Park Racecourse, Menangle Park

Area of Camden

- Thurns Weir, between Camden and Menangle
- Galvin Cottage, corner of Galvin and Macarthur Roads, Elderslie
- Brownlow Hill Weir, near Cobbity

City of Penrith

- Wallacia Weir, Wallacia
- Victoria Bridge, Great Western Highway, Penrith

City of Hawkesbury

- Farm building and fence, part D.P. 62095, Edwards Road, corner of Powells Lane, Richmond Lowlands
- Slab barn, Lot 1, D.P. 615840, corner of Liverpool and Buckingham Streets, Pitt Town
- Two storey farmhouse, Laws Farm Road, Lower Portland
- Cable Ferry, Webbs Creek
- Cable Ferry, Sackville
- Cable Ferry, Lower Portland

City of Gosford

- Cable Ferry, Wisemans Ferry

- Wesleyan Chapel, Lot 4, D.P. 599807, Portion 118, Parish of Popran, Wisemans Ferry Road, Gunderman
- Ruins of Greengrove Wharf, Portion 10, Parish of Popran, Mangrove Creek (mouth of Bedlam Creek)
- Wharf and house (formerly The Greenman Inn), Portion 36, Parish of Cowan, Marlows Creek
- House, Lot 4, D.P. 377437, Collington Road, Spencer
- Holy Trinity Church, graveyard and wharf, part Portion 31, Parish of Spencer, Wisemans Ferry Road, Spencer
- Woodbury House, part Portion 113, Parish of Spencer, Tarby Creek near Spencer
- H.M.A.S. Parramatta wreck, mouth of Cascade Gully, Hawkesbury River near Milson Island
- Site of George Peat's Inn and grave of Frances Peat, part Portion 2 and public reserve, Parish of Cowan, Mooney Mooney Point

Schedule 2 Places where extractive industry is prohibited

(Referred to in item (5) of clause 11)

- 1 The Macdonald River from its confluence with the Hawkesbury River and for its entire length within the City of Hawkesbury, being land comprising the bank or bed of the river and the land within 40 metres of the river (being 40 metres measured horizontally from the top of the bank of that river).
- 2 The Colo River from its confluence with the Hawkesbury River and for its entire length within the City of Hawkesbury, being land comprising the bank or bed of the river and the land within 40 metres of the river (being 40 metres measured horizontally from the top of the bank of that river).
- 3 The Hawkesbury-Nepean River, downstream of the Wallacia Bridge, comprising the bank or bed of the river and the land within 10 metres of the river (being 10 metres measured horizontally from the top of the bank of that river), but excluding:
 - (a) land identified in Division 5 of Schedule 1 to *Sydney Regional Environmental Plan No 9—Extractive Industry (No 2—1995)*, and
 - (b) land to which *Sydney Regional Environmental Plan No 11—Penrith Lakes Scheme* applies.

Schedule 3 Amendment of environmental planning instruments

(Referred to in clause 12 (1) (c))

- (1) *State Environmental Planning Policy No 4—Development Without Consent* is amended:
- (a) by inserting in clause 2 (6) (b) after the words “a conservation area” the words “(not being a conservation area sub-catchment within the meaning of *Sydney Regional Environmental Plan No 20—Hawkesbury-Nepean River (No 2—1997)*)”,

Note—

This means that SEPP 4 will permit certain development (such as development of minor environmental significance) without consent in conservation area sub-catchments under this plan.

(b) by inserting at the end of clause 10 (3) (g) the following word and paragraph:

, or

(h) to land shown as a wetland on the map marked “*Sydney Regional Environmental Plan No 20—Hawkesbury-Nepean River (No 2—1997)*” or to land consisting of a scenic area shown on that map as being of significance beyond the region or of regional significance. (That map is deposited in the Parramatta office of the Department of Urban Affairs and Planning, and copies are deposited in the Department’s offices at Sydney, Newcastle and Wollongong, and in the office of each consent authority referred to in that plan.)

Note—

This means that clause 10 of SEPP 4 will not allow ancillary or incidental development on mapped wetlands, or scenic areas of regional significance or of significance beyond the region, without development consent.

(2) *State Environmental Planning Policy No 46—Protection and Management of Native Vegetation* is amended by inserting after clause 3 (g) the following paragraph:

(h) land shown as a wetland on the map marked “*Sydney Regional Environmental Plan No 20—Hawkesbury-Nepean River (No 2—1997)*” deposited in the Parramatta office of the Department of Urban Affairs and Planning, copies of which are deposited in the Department’s offices at Sydney, Newcastle and Wollongong, and in the office of each consent authority referred to in that plan.

Note—

This means that SEPP 46 will not apply to wetlands shown on the map.

(3) *Sydney Regional Environmental Plan No 9—Extractive Industry (No 2)* is amended:

(a) by inserting after the matter “*No 2*” in clause 1 the matter “—1995”,

(b) by omitting clause 20 (3)–(5) and by inserting instead the following subclause:

(3) This clause does not prevent the carrying out of development described in item (6) of clause 11 of *Sydney Regional Environmental Plan No 20—Hawkesbury-Nepean River (No 2—1997)* in accordance with that plan.

Dictionary

(Referred to in clause 13)

bush fire management plan means a plan as approved or varied under section 41A of the *Bush Fires Act 1949* by the Bush Fire Co-ordinating Committee.

clearing, in relation to mapped wetlands (see item (19) of clause 11), means destroying or removing flora native to New South Wales by any means.

However, it does not include:

- (a) destroying or removing plants declared to be noxious weeds by an order under section 7 of the [Noxious Weeds Act 1993](#) by means not likely to be significantly detrimental to the native ecosystem, or
- (b) unavoidably and consequentially destroying or removing flora lying adjacent to any such noxious weeds during the process of destroying or removing those noxious weeds, or
- (c) the removal in accordance with a bush fire management plan of flora which are a bush fire hazard, or
- (d) the removal of flora in accordance with a Vegetation Management Plan approved by the council of the area concerned.

clearing, in relation to development within a conservation area sub-catchment (see item (3) of clause 11), development in or near the river (see item (15) of clause 11), or development in a riverine scenic area (see item (16) of clause 11), means destroying or removing by any means:

- (a) flora which is either a remainder of the natural flora of the land or, if altered, is still representative of the structure and floristics of the natural flora (this includes the destruction or removal of the surface and subsurface soils, leaf litter, the seed bed, and any rocks, stones or pebbles), or
- (b) plants which are not native to New South Wales which, in the opinion of the consent authority, contribute positively to the scenic quality or water quality of the locality.

However, it does not include:

- (c) destroying or removing plants declared to be noxious weeds by an order under section 7 of the [Noxious Weeds Act 1993](#) by means not likely to be significantly detrimental to the ecosystem, or
- (d) unavoidably and consequentially destroying or removing flora lying adjacent to any such noxious weeds during the process of destroying or removing those noxious weeds, or
- (e) the removal in accordance with a bush fire management plan of flora which are a bush fire hazard, or
- (f) the removal of flora in accordance with an approval under a council tree preservation order, or
- (g) the removal of flora in accordance with a Vegetation Management Plan approved by the council of the area concerned.

company State owned corporation is a State owned corporation listed in Schedule 1 to the [State Owned Corporations Act 1989](#).

conservation area sub-catchments are those that are subject to relatively minimal human interference and are consequently in a reasonably pristine environmental condition, being the sub-catchments of Glenbrook and Erskine Creek, Webbs Creek, the Colo River, the Grose River and the Macdonald River, as shown on the map.

cumulative environmental impact means the combined effects on the environment of development and resource use within an area over a period of time.

demolish means wholly or partly destroy or dismantle.

environmentally sensitive areas are areas where environmental characteristics mean that the potential impacts of land use are greater than elsewhere in the catchment. Environmentally sensitive areas identified by the Hawkesbury-Nepean Environmental Strategy in the Hawkesbury-Nepean catchment are: the river; riparian land; escarpments and other scenic areas; conservation area sub-catchments; national parks and nature reserves; wetlands; other significant floral and faunal habitats and corridors; acid sulphate soils and potential acid sulphate soils.

Erosion and Sediment Control Plan means a plan addressing all aspects of site disturbance, flow rate changes, erosion and sediment control and site rehabilitation for the duration of the project.

extractive industry means:

- (a) the winning or removal of extractive material from land and any ancillary or incidental land use, or
- (b) an industry or undertaking, not being a mine, which depends for its operations on the winning of extractive material from the land on which it is carried on.

fauna means any native animal, whether vertebrate or invertebrate, at whatever stage of development, and includes aquatic animals such as fish, amphibians, aquatic or amphibious mammals, and aquatic or amphibious reptiles.

floodplain means the floodplain level nominated in a local environmental plan or those areas inundated as a result of a 1 in 100 flood event, if no such level has been nominated.

flood prone land means land susceptible to inundation by the probable maximum flood event.

floodway means those areas of a floodplain where a significant discharge of water occurs during floods. Floodways are areas which, even if only partially blocked, would cause a significant redistribution of flood flow, or a significant increase in flood levels.

flora means any plants that are native to New South Wales, including trees, shrubs, ferns, creepers, vines, palms or grasses.

Flora and Fauna Study means a study which comprehensively describes and assesses the flora and fauna of a site. Such a study identifies threatened or endangered species known or likely to occur on the site, the existence of habitat critical to the survival of any species, and existing or potential linkages between habitats both within and outside the site.

Hawkesbury-Nepean Catchment Management Trust means the Hawkesbury-Nepean Catchment Management Trust established under the [Catchment Management Act 1989](#) and the [Hawkesbury-Nepean Catchment Management Trust Regulation 1993](#).

Hawkesbury-Nepean Environmental Planning Strategy means the Strategy entitled “Draft Hawkesbury-Nepean Environmental Planning Strategy” prepared by the Department of Urban Affairs and Planning and published in 1996.

heritage significance means historic, scientific, cultural, social, archaeological, architectural, natural or aesthetic significance.

Metropolitan Strategy means the document titled *Cities for the 21st Century* prepared by the

former Department of Planning and published in 1995.

Planning Report means the report entitled “Planning Report for Sydney Regional Environmental Plan No 20—Hawkesbury-Nepean River 1996” prepared by the Department of Urban Affairs and Planning.

relic means:

- (a) any deposit, object or material evidence (which may consist of human remains) relating to the use or settlement of the land to which this plan applies, not being Aboriginal habitation, which is more than 50 years old, or
- (b) any deposit, object or material evidence (which may consist of human remains) relating to Aboriginal habitation of the land to which this plan applies, whether before or after its occupation by persons of European extraction.

riverine corridor means the river and the land marked on the map as scenic corridor.

Scenic Quality Study means the document entitled “Hawkesbury-Nepean River Scenic Quality Study” published by the Department of Urban Affairs and Planning in 1996.

significant flora and fauna habitat areas means land shown as wetland on the map and such other land as may be identified on the map as a significant flora and fauna habitat area.

sprinkler system means a high or low level system with a lateral move, centre pivot, travelling irrigator, side roll, end tow or hand shift sprinkler head.

the Act means the [Environmental Planning and Assessment Act 1979](#).

the catchment means the catchment of the river.

the map means the map consisting of 42 sheets marked “Sydney Regional Environmental Plan No 20—Hawkesbury-Nepean River (No 2—1997)” deposited in the Parramatta office of the Department of Urban Affairs and Planning, copies of which are deposited in the Department’s offices at Sydney, Newcastle and Wollongong, and in the office of each consent authority referred to in this plan.

the river means the Hawkesbury-Nepean River.

threatened species, populations and ecological communities has the same meaning as in the [Threatened Species Conservation Act 1995](#).

Total Water Cycle Management Study or Plan means a study or plan which estimates pre- and post-development runoff volumes and pollutant loads from a site, and identifies any associated impacts of development on receiving waters, identifies water cycle management strategies and best management practices to be employed on the site to address these, and identifies arrangements for ongoing maintenance and monitoring of the water cycle management system. The level of detail should be appropriate to the stage of the development cycle proposed, with a Plan for a subdivision proposal being more specific than a Study for a rezoning proposal.

tributary of the river means (for the purposes of items (14) and (15) of clause 11) Badgerys Creek, the Bargo River, Cataract River, Colo River, Grose River, Macdonald River or Berowra Creek, Calabash Creek, Cattai Creek, Coal and Candle Creek, Cowan Creek, Currency Creek, Eastern Creek, Kemps Creek, Little Cattai Creek, Mangrove Creek, Marrs Creek, McKenzie Creek, Mogo Creek, Mooney Mooney

Creek, Mulgoa Creek, Mullet Creek, Narellan Creek, Patonga Creek, Popran Creek, Rickabys Creek, Roberts Creek, Ropes Creek, South Creek, Webbs Creek, Werrington Creek, Wheeny Creek or Coba Bay.

Vegetation Management Plan means a plan which:

- (a) identifies the vegetation to which it applies, and
- (b) describes and analyses that vegetation, and
- (c) specifies measures to be taken to implement the policies set out in items of clause 6 by the strategies recommended in those items, and
- (d) consistently with those policies and recommended strategies, specifies measures for ongoing management, including monitoring and weed control, and
- (e) addresses any other matters considered necessary by the consent authority.

waste includes any matter or thing whether solid, gaseous or liquid or a combination of any solids, gases or liquids that is discarded or is refuse from processes or uses (such as domestic, medical, industrial, mining, agricultural or commercial processes or uses).

wetland means an area with characteristics of both terrestrial and aquatic environments that is flooded or waterlogged often enough to support aquatic or other plants typical of areas with those characteristics.