

## **6 GENERAL RULE**

### **6.5 WATER, SEWER, STORMWATER AND OPEN SPACE AND RECREATION CONTRIBUTIONS**

#### **6.5.1 WATER SUPPLIES**

##### **6.5.1.1 ISSUES, OBJECTIVES, POLICIES AND METHODS**

See Part B(9).

##### **6.5.1.2 RULES FOR FINANCIAL CONTRIBUTIONS FOR WATER SCHEMES**

###### **(1) Within the boundaries of an urban water scheme**

Where proposed allotments, sites or buildings are intended for human habitation or occupation within the boundaries of an urban water scheme (Timaru, Temuka, Geraldine, Pleasant Point) the following contributions are payable:

- (a) Where water from a water network utility service is able to be delivered to the subdivision or land concerned from an existing water network utility:
  - (i) the full actual cost of all necessary reticulation within the subdivision or development for each allotment, site or building; plus
  - (ii) the full actual cost of connections between the reticulation in the subdivision or development and the existing water network utility system; plus
  - (iii) the full actual cost of any additions or modifications to the existing water network utility system that are required to provide for the expected effects of the subdivision, development or building on that utility system; plus
  - (iv) an equitable share of the cost of the existing water network utility system where additional capacity has been created in anticipation of future development to a maximum value of \$3,000 for each allotment.
- (b) When calculating (a)(iii) and (iv) above, the Council shall give consideration to whether any part of the cost of any additions or modifications to the existing network should be borne by Council or other subdividers or developers, and whether the subdivision or development benefits the present residents of the

community or District to a degree that some or all of the cost of the existing network need not be charged.

- (c) The contribution may be in cash or kind or a mix of these, but in all cases the amount to be paid shall be based on an analysis of actual costs and be able to be substantiated by Council.

(2) **Within the boundaries of a rural water scheme**

- (a) The Council shall not grant its consent to any subdivision application which identifies a Rural Water Supply Scheme as its source of water without evidence of approval by the water supply authority for that connection.
- (b) Completion of the required connection works shall be achieved prior to sealing the survey plan.
- (c) Where a source of water supply other than a Rural Water Supply Scheme is identified a consent notice shall be placed on the title of each allotment stating that the provision of water to the site is the owners responsibility on a continuing basis.

NOTE: Rural water supply schemes have capital contributions for new connections, additional water, the cost of connecting from the existing pipe work to the tank or property connection, and upgrading of mains upstream of the consumer to enable connection to be made. Connection to the rural water supply is not possible without approval from the water supply authority. The appropriate capital contribution will be advised when approval is given.

### **6.5.2 OPEN SPACE AND RECREATION**

#### **6.5.2.1 ISSUES, OBJECTIVES, POLICIES AND METHODS**

See Part B(2) and (11).

#### **6.5.2.2 RULES FOR OPEN SPACE AND RECREATION IN ALL ZONES**

(1) **Subdivision for Residential Activities**

For subdivisions resulting in additional allotments for residential purposes, a fee of \$500.00 shall be payable for each additional allotment, except where any additional allotment has an existing household unit.

(2) **Household Units**

- (a) At the time of uplifting a building consent for a household unit, a payment of \$500.00 shall be made, except where this is the first or will be the only household unit on the site. This fee may be reduced by up to 50% if the household unit is part of a complex

or institution where specific community and recreational facilities are provided on the site.

- (b) Where there are existing household units on a site to be replaced by new household units, the total fees for the new household units are to be reduced by \$500.00 for each existing household unit being replaced.
- (c) A contribution of land or payment of cash shall be required for any development solely or principally for multi unit residential purposes. This contribution shall be \$500.00 for each unit, except for the first unit.
- (d) Allotments over two hectares in area, subdivided after 7 October 1995, shall be subject to a contribution of \$500.00 when a household unit is placed on the site.
- (e) If the household unit is of a relocatable construction and caters for dependent relatives a refund will be available if the building is removed within 10 years. This refund will reduce by 10% of the original fee paid per annum up until year 10 when no refund will be given.

(3) **Discretionary Activity**

Any application to have General Rule 6.5.2.2.1 or 6.5.2.2.2 varied or waived is a discretionary activity.

(4) **Residential 6 Zone - Proposed Neighbourhood Park**

The new Proposed Neighbourhood Park and all stormwater swales identified on Appendix A - Gleniti Indicative Development Plan shall be vested in the Timaru District Council at the time of subdivision in lieu of open space and recreation contributions payable at the time of subdivision on the land described as Lot 1 DP 53112, Lot 19 DP 334402, Lots 6 and 8 DP 342480, Lots 6 and 7 DP 346964, and Lot 20 DP 334402 as at 1 December 2006.

**6.5.3 STORMWATER SYSTEMS FOR URBAN AREAS**

**6.5.3.1 ISSUE, OBJECTIVE, POLICIES AND METHODS**

See Part B(5)(b), and Part D, 1-5.

**6.5.3.2 RULES ON FINANCIAL CONTRIBUTIONS**

- (1) At the time of subdivision, consideration shall be given to taking a financial contribution in the form of cash, land, works or services (or a combination of these). Any stormwater services, that are required to

be constructed, reconstructed, upgraded or subject to any other structural works, shall be designed and constructed by the subdivider and/or developer to the standards specified in this District Plan.

- (2) Where a financial contribution has not been taken at the time of subdivision Council may require a financial contribution to be taken as a condition of land use.
- (3) Where a connection to an existing stormwater drainage network utility system is not available to serve the subdivision or development the maximum amount of the financial contribution should be the full and actual cost of providing:
  - (a) A system for the disposal of stormwater; and
  - (b) Connections between the reticulation in the subdivision or development and the existing stormwater drainage network utility system; and
  - (c) All necessary reticulation and control structures within the subdivision or development; and
  - (d) A stormwater connection for each allotment, site or building.
- (4) When calculating the financial contribution and to avoid disproportionate costs falling on developers at the lower end of catchments a cost sharing system shall apply as set out below:
  - (a) Each area affected by the need for a cost sharing arrangement will be defined and treated separately to determine the share of costs to be borne by subdividers. The Council's proposals for the basis of cost sharing will be made available to the subdividers in broad terms, ie rate of levy on defined areas, basis of adjustment and details of services proposed.
  - (b) The contribution is to be based on estimated costs of providing the services, the estimates to be prepared on the basis of present day costs and supported by detailed engineering plans and formal detailed costing procedures for each service in each catchment area; costs are to include design fees. The date of the estimates is to be stated.
  - (c) The contribution shall be allocated by spreading the estimated cost of each service for the catchment on an area basis over the land in that catchment and the contribution charged as it is subdivided. The result to be a levy per hectare for stormwater and main drains.

- (d) Although the contribution is to be calculated on an area basis, it shall be adjusted to allow for the direct benefit to be obtained by any one land owner. For example: the reticulation necessary in a subdivision is reduced considerably where a main drain goes right through that subdivision. In contrast the fringe areas do not receive such a benefit as the main drain comes only to the boundary. The method of adjustment is to be a deduction from the gross cost for the catchment of an estimate of the direct benefit pertaining throughout the catchment before determining the contribution per hectare.
  - (e) Where a subdivision is to receive a direct benefit the estimated amount is to be added back to the basic levy. The direct benefit received by any subdivision will reflect the projected load due to anticipated land use. This applies where a catchment has land which is zoned for different purposes. The direct benefit shall be calculated on the estimated cost of providing the necessary services for that subdivision ie a certain size drain.
  - (f) The contribution is to be applied on the basis of the catchment envisaged in the defined area referred to under Rule 6.5.3.2(4)(a) above, even if the final link for that subdivision is to services in another catchment. This provision is to ensure equity between different parts of the catchment.
  - (g) The contribution rate per hectare will be updated according to the most recently published quarterly figure of the Works Construction Cost Index (WCCI) to cover the increase in costs which will have taken place between the time the estimate is prepared and the subdivision approval given.
  - (h) The levied amount shall be made a condition of subdivisional approval. Payment to be required or a suitable bond entered into before the plan is sealed with such levy not subject to escalation during the period of approval.
  - (i) Where agreements such as set out above exist they shall continue to be applied to further development within the specific catchment.
- (5) Where an existing stormwater drainage network utility system is available to serve the subdivision or development the maximum amount of the financial contribution shall be the full and actual cost of:
- (a) All necessary reticulation in the subdivision or development and a stormwater connection for each allotment, site or building; and

- (b) Connections between the reticulation in the subdivision or development and the existing stormwater network utility system; and
  - (c) Any upgrading of the existing network utility system that is required to provide for the expected effects of the subdivision, development or building on that utility system.
- (6) At Gleniti, where open drainage channels are to be established and managed as stormwater swales (with or without associated detention dams) as part of a comprehensive stormwater management system, financial contribution shall be calculated in accordance with all of the above provisions.

### 6.5.3.3 PERFORMANCE STANDARDS FOR STORMWATER

Where a financial contribution is taken in the form of works or services the following design criteria shall be complied with:

- (a) Run-off and precipitation return period for design of stormwater drainage shall be based on the following:

Zones	Run-off Coefficient	Return Period
(i) Recreation Rural - grades Flat to 2% - grades 2% to 7% - steeper 7%	0.13 to 0.17 0.18 to 0.22 0.25 to 0.35	5 years 5 years 5 years
(ii) Residential 1 Residential 2 Residential 3 Residential 4 Residential 5	0.4 0.6 0.4 0.4 0.4	5 years 5 years
(iii) Industrial	0.6	10 years
(iv) Commercial	0.95	10 years

- (b) Rainfall intensity shall be determined from the Rainfall Intensity Curve for Timaru (Gleniti rain gauge (1977-98) annual maxima data, fitted with TCEV distribution (Opus International Consultants Ltd, 1999).
- (c) Where stormwater swales or open gullies are not used, the minimum size of pipe for a public stormwater drain shall be 150 millimetres in diameter.

- (d) The minimum size of pipe serving a street sump shall be 200 millimetres diameter.
- (e) Pipe grades shall be such that velocities at design flow shall be between the limits of 0.75 m/sec and 3.0 m/sec.
- (f) Velocities shall be determined using the Kutter or Manning formulae, or graphs, or monographs, or equivalent based on these formulae.
- (g) The system shall accommodate a 2% annual exceedence probability rainfall event using a system appropriate for the intended land use (ie escape routes shall be provided).
- (h) Ensure gravity operation.
- (i) If linking to, be compatible with the existing drainage network.
- (j) Not unduly restrict the location of any future building
- (k) Where pipe capacity to the specified level is not provided or appropriate the system shall incorporate a pipe component of sufficient capacity for an annual rainfall event and the surface flow shall be within a grass or lined swale or channel of capacity for the return period for the land zonings as set out in (a) above.
- (l) For that area included in the Residential 6 Zone, Residential 6(a) Zone (Deferred) and 6(b) Zone (Deferred) at Gleniti in Timaru, the system shall be within the existing natural open drainage channels, stormwater swales and/or such other waterways as may be the subject of resource consent and shall:
  - be located as identified in the Indicative Development Plan for Gleniti (or such other as may be the subject of resource consent)
  - be visually similar in appearance to a natural gully
  - include earth detention dams
  - be designed to manage a 2% annual exceedence probability rainfall event (ie 50 year/30 minute); and
  - be approved by a suitably qualified chartered professional engineer

NOTE 1: The Council will generally not establish the stormwater system including detention dams and swales but requires specific designs to be completed by a suitably qualified chartered professional engineer and these engineering plans and specifications will require Timaru District Council approval prior to the commencement of any work.

NOTE 2: Quality control during construction shall also be documented to check compliance with the relevant engineering design.

- (m) Detention dams within stormwater swales in the Residential 6 Zone, Residential 6(a) Zone (Deferred) and 6(b) Zone (Deferred) at Gleniti in Timaru are to be constructed on, or about, the locations as indicated in the Indicative Development Plan for Gleniti, or in such other locations as are approved by resource consent.
- (i) Detention dams are to be constructed to the following specifications:
- Be made from local available material up to a height of 2 metres.
  - Suitable construction and the final integrity of each detention dam will need to be verified by a chartered engineer.
  - Each dam will have a single 300 millimetre diameter concrete culvert pipe installed at gully level, and a scour resistant overflow installed on top of the dam structure.
  - Once completed regular maintenance of each structure will be required to ensure there are no blockages or scouring.
  - Walkways, cycleways and plantings may be established as part of the stormwater swale.
- (ii) Additional detention dams may also be constructed, as and when required.
- (iii) No buildings and/or structures that conflict with the primary objective of stormwater management may be established within a stormwater swale.
- (n) Every person within the Residential 6 Zone, Residential 6(a) Zone (Deferred) and 6(b) Zone (Deferred) at Gleniti in Timaru has a duty to avoid the discharge of sediment from any site subject to land modification, development or subdivision. One or more sediment retention and/or filtering mechanisms may be necessary to ensure that this standard can be met. All measures to mitigate against the discharge of sediment from a site shall be:
- Implemented prior to, or shortly after, the commencement of any land modification activity;
  - Retained until the land-disturbing activity has been completed, and/or the potential for sediment discharge has ceased.

- (o) Within the Residential 6 Zone, Residential 6(a) Zone (Deferred) and 6(b) Zone (Deferred) at Gleniti in Timaru, all bare earthwork surfaces shall be revegetated as soon as practicable. Hydro-seeding, grassing or other means of revegetation shall be carried out on a progressive basis as soon as the earthworks have been completed on a particular part of the site, so as to prevent the future generation and discharge of any sediment from that site.
- (p) Earthworks, roading, tracking and trenching activities within the Residential 6 Zone, Residential 6(a) Zone (Deferred) and 6(b) Zone (Deferred) at Gleniti in Timaru shall be isolated from the path of any run-off from surrounding land to prevent it from washing across the site and eroding sediment from any exposed earth.
- (q) Within the Residential 6 Zone, Residential 6(a) Zone (Deferred) and 6(b) Zone (Deferred) at Gleniti in Timaru any stormwater run-off that is discharged from a piped outfall, or an overland flowpath, shall not cause any form of erosion.

NOTE: Resource consent may also be required from the Canterbury Regional Council to extend the existing sewer and stormwater systems.

### **6.5.4 SANITARY SEWER SYSTEM**

#### **6.5.4.1 ISSUE, OBJECTIVES, POLICIES AND METHODS**

See Part B(5)(b).

#### **6.5.4.2 RULES ON FINANCIAL CONTRIBUTIONS**

- (1) At the time of subdivision, consideration shall be given to taking a financial contribution in the form of cash, land, works or services (or a combination of these). Council shall advise the amount of the contribution at the time of the subdivision consent.
- (2) Where a financial contribution has not been taken at the time of subdivision, Council may require a financial contribution to be taken as a condition of land use.
- (3) Where a connection to an existing sewerage system is not able to be made to the subdivision or development the maximum amount of the financial contribution shall be the full and actual cost of:
  - (a) Providing a sanitary sewerage system for the subdivision, development or building; and

- (b) All necessary reticulation within the subdivision or development for each allotment, site or building.
- (4) Where a subdivision creates the need for a sanitary sewage system and adjoining land or buildings are discharging sanitary or trade wastes which are adversely affecting the environment then the sewage system constructed shall service both the land subject to the resource consent and the other lands.
- (5) The cost of the sewage system in Rule 6.5.4.2(4) shall be shared equitably between the lands served and calculated as follows:
  - (a) Treatment plant capital and operating:
    - (i) In proportion to Biological Oxygen Demand (BOD)kg/day
    - (ii) Suspended Solids (SS) kg/day
    - (iii) Volume m<sup>3</sup> day
    - (iv) All equally weighted
  - (b) Pumping installations capital and operating:
    - (i) In proportion to Volume m<sup>3</sup>/day
    - (ii) Peak flow rate/sec
    - (iii) All equally weighted
  - (c) Reticulation
    - (i) See criteria in Rule 6.5.3.2(4).
- (6) Where a connection to an existing sanitary sewerage network utility is available to serve the subdivision or land use the maximum amount of the financial contribution shall be the full and actual cost of:
  - (a) All necessary reticulation within the subdivision or land use for each allotment, site or building.
  - (b) Connections between the reticulation in the subdivision or development and the existing sanitary sewerage network utility system.
  - (c) Any upgrading to the existing sanitary sewerage network utility system that is required to provide for the expected effects of the subdivision, development or building on that utility system.
  - (d) An equitable share of the cost of the new sanitary sewerage utility systems or upgraded (sewerage utility) systems, including design costs, where additional capacity will be required by the cumulative effects of the development of an area. The share

will be calculated by dividing the cost of the work by the new or upgraded system.

### 6.5.4.3 PERFORMANCE STANDARDS FOR SANITARY SEWER SYSTEMS

Where a financial contribution is taken in the form of works or services the following design criteria shall be complied with:

- (a) The minimum size of pipe for a public sewer shall be 150 millimetres diameter.
- (b) Design flows shall be determined on the basis of:

Zones	Design Flows
(i) Residential	35m <sup>3</sup> /hectare/day peak WWF* (37 persons/hectare) (0.0245m <sup>3</sup> /hectare/minute)
(ii) Commercial	118m <sup>3</sup> /hectare/day peak WWF (0.082m <sup>3</sup> /hectare/minute)
(iii) Industrial	53m <sup>3</sup> /hectare/day peak WWF (0.037m <sup>3</sup> /hectare/minute)
* (Wet Weather Flow)	

- (c) In the case of commercial or industrial activities, consulting engineers and surveyors should approach prospective buyers as to the quantity of sewage - sullage or effluent likely to be discharged into the sewerage system. Where actual potential flows are known the anticipated flow shall be used provided it is greater than that under Rule 6.5.4.3(7)(b)(ii) and (iii).
- (d) Pipe grades shall be such that velocities at design flow shall be between the limits of 0.75 m/sec and 3.00 m/sec for full or half full conditions except that steeper grades may be required at the head of a line if half full conditions are not likely to be realised.
- (e) Velocities shall be determined using the Kutter or Manning formulae, or graphs or nomograms based on these formulae.
- (f) Council may request design calculations together with a sketch showing catchments.
- (g) The sanitary sewerage design shall be such that as large a portion as practicable of the building area of an allotment can be serviced by gravity. When in subdivision, or part of a subdivision, the sanitary sewerage reticulation will not gravitate

into the existing or proposed system, then the subdivider shall be required to provide a pumping station capable of handling the sewage from within that part of the catchment unable to gravitate, subject to the following:

- (i) The pumping station design and the type of pumps, motor and controls to be installed, including mitigation measures in the event of pump failure, shall be approved by Council. A basic electrical specification is available on request.
  - (ii) The pumping station shall be sited on a separate lot of which the Council will become the owner. The subdivider shall provide access to this lot by means of a Right of Way where direct access to a street is not available.
- (h) Minimum Grades for pipes used in Sanitary Sewer systems are listed in the following table:

	<b>Pipe Diameter in mm (private or public)</b>	<b>Minimum Grade</b>	<b>Remarks</b>
(i)	100 (private)	1 in 60	Household unit connections only or equivalent. Grade may be reduced to 1 in 80 if approved by Council in special circumstances.
(ii)	150 (public)	1 in 150	Grade down to 1 in 200 may be permitted in special circumstances. Further upstream length should have a steeper grade if possible.
(iii)	150 (private)	1 in 120	Right of way for two or three back sections (household units or equivalent).
(iv)	225 (public)	1 in 300	
(v)	300 and over (public)		Gradients depending on design criteria will be approved by Council.

- (i) Materials for pipes used in Sanitary Sewer Systems shall comply with New Zealand, Australian, British or International Organisation for Standardisation (ISO) Standards as appropriate.

(j) Specifications for common connections to public sewers.

In new subdivisions common connections are not allowed except as a condition of subdivision consent. Common drainage connections will be considered for approval on the basis of the following specifications:

	Number of Household Units	Pipe Size mm	Minimum Grade	Connection to Main	Type of Land Use
(i)	2	100	1 in 48	Saddle or Wye	Straight run
(ii)	3	100	1 in 40	Manhole	
(iii)	4	150	1 in 120	Manhole	
(iv)			1 in 80 if not to be taken over by District		
(v)	3 units in one block	100	1 in 48	Saddle or Wye	2 bedroom units
(vi)	4 units in one block	100	1 in 40	Saddle or Wye	2 bedroom units
(vii)	6 units in one block	100	1 in 40	Saddle or Wye	1 bedroom unit
(viii)	2 blocks of units as above	150	1 in 120	Manhole	
(ix)	1 block of units and 1 household unit	150	1 in 120	Manhole	
(x)	High risk 150 users		1 in 120	Manhole	Schools, Hospitals etc
(xi)	Where possible sewer connections to be made to manholes.				

(k) In the Residential 6 Zone, Residential 6(a) Zone (Deferred) and 6(b) Zone (Deferred) at Gleniti in Timaru, the gully pipeline shall be a continuous, polyethylene pipe and the manholes shall be lined in the same pipeline material.

NOTE: Resource consent may also be required from the Canterbury Regional Council to extend the existing sewer and stormwater systems.