Dunedin 3 Waters Strategy

Mason Street Integrated Catchment Management Plan

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MASON STREET INTEGRATED CATCHMENT MANAGEMENT PLAN

Figure 4-1

Mason Street Catchment Location

DISCIPLINE
Stormwater

Dunedin 3 Waters Strategy

Mason Street Location

Dunedin
Burns Point
Waverley
Shiel
Andersons Bay Inlet
Musselburgh
South Dunedin
Caversham
Balgavie
Maryhill
Kensington
Mornington
Kenmore
Brockville
Hospyn
Kakorai
Bradford
Green Island
Freezing works
Burnside
Cement works
North Dunedin
St Kilda
Boat harbour
HES
SDH
Job No:
Map No:
42173227
Figure 4-1

Status:
Final

Scale:
1:20,000

Plot Date:
Sep 2011

Drawn:

Approved:

Check:

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Legend

- Mason Street Catchment Boundary

Contour (m)
- <45
- 45-90
- 90-135
- 135-170
- >170

MASS STREET INTEGRATED CATCHMENT MANAGEMENT PLAN

Figure 4-2
Mason Street Catchment Contour Map

Dunedin 3 Waters Strategy

DISCIPLINE
Stormwater

Scale: 1:7,500
Plot Date: Sep 2011
Job. No: 42173227
Revision: A

Mason Street Catchment Boundary

- Contour (m)
  - <45
  - 45-90
  - 90-135
  - 135-170
  - >170
Figure 4-3
Mason Street Catchment Geology Map

Legend
- Mason Street Catchment Boundary
- Md1e basalt
- Md2e basalt
- Md1i phonolite
- Mdc conglomerate
- Q1an gravel
- Q2af gravel
- Water
- Roads

Dunedin 3 Waters Strategy

MASSON STREET INTEGRATED CATCHMENT MANAGEMENT PLAN
Figure 4-3
Mason Street Catchment Geology Map

DISCIPLINE
Stormwater

Drawn: MM
Status: Final
Checked: HES
Scale: 1:7,500
Dunedin 3 Waters Strategy

MASSON STREET INTEGRATED CATCHMENT MANAGEMENT PLAN

Figure 4-7
Contaminated Land Sites

Legend
- Catchment Boundary
- Stormwater Network
- Parcel Boundaries
- Contaminated Site
- Landfill
- Reclamation
- Reclaimed Land
- ORC Contaminated Sites
Mason Street Catchment Current Imperviousness

Legend
- Mason Street Catchment Boundary
- Land Parcels

Current Land Use Imperviousness

- Impervious (%)
  - 0.0 - 20.0
  - 20.1 - 40.0
  - 40.1 - 60.0
  - 60.1 - 80.0
  - 80.1 - 100.0

0 0.25 0.5 Kilometres

Dunedin 3 Waters Strategy

Dunedin City Council

MASON STREET INTEGRATED CATCHMENT MANAGEMENT PLAN

Figure 4-8

Mason Street Catchment Current Imperviousness
MASON STREET INTEGRATED CATCHMENT MANAGEMENT PLAN

Dunedin 3 Waters Strategy

Figure 4-11

Mason Street Catchment Pipe Network Ages

Legend

- Mason Street Catchment Boundary
- Land Parcels

Installation Year

- Installed Before 1900
- Installed 1901 - 1920
- Installed 1921 - 1940
- Installed 1941 - 1960
- Installed 1961 - 1980
- Installed 1981 - 2000
- Installed 2001 - 2010

0 0.25 0.5 Kilometres
MASON STREET INTEGRATED CATCHMENT MANAGEMENT PLAN

Dunedin 3 Waters Strategy

Figure 4-13
Mason Street Catchment Reported Stormwater Flooding

Legend

- Mason Street Catchment Boundary
- Local Plan

Legend

Stormwater Flooding Complaints

Year:
- 2005
- 2006
- 2007
- 2008
- 2009
- 2010

Exact Location Known (Full Address)

Exact Location Unknown (Road Name Only)

Problem Description
- Floodgate Outlet Damaged
- Pollution Spill
- Stormwater Channel Screen Blocked
- Stormwater Channel Screen Damaged
- Stormwater Overflowing - Into my basement or garage
- Stormwater Overflowing - Onto my property
- Drain - Boundary trap overflow
- Lamphole - Overflowing
- Sewer Blocked
- Sewer Leaking
- Sewer Overflowing
- Sewer Manhole - Overflowing

Problem Description
- Pollution Spill
- Stormwater Channel Screen Blocked
- Stormwater Channel Screen Damaged
- Stormwater Overflowing - Into my basement or garage
- Stormwater Overflowing - Onto my property
- Drain - Boundary trap overflow
- Lamphole - Overflowing
- Sewer Blocked
- Sewer Leaking
- Sewer Overflowing
- Sewer Manhole - Overflowing

0 0.25 0.5 Kilometres

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Legend

- Mason Street Catchment Boundary
- Land Parcels

Wastewater Complaints

Year
- 2006
- 2007
- 2008
- 2009
- 2010

Problem Description
- Foul Drain - Boundary Trap Overflow
- Foul Sewer - Blocked
- Foul Sewer - Drain Gully Trap Overflow
- Foul Sewer - Overflowing Inside My House
- Foul Sewer Manhole - Overflowing
- Foul Sewer Pump Station - Overflowing
- Foul Sewer - Complaint - Service Other
- Foul Sewer - Drain Gully Trap Overflowing
- Foul Sewer - Overflowing
- Foul Sewer - Problem Other

Problem Description
- Foul Drain - Boundary Trap Overflowing
- Foul Sewer - Blocked
- Foul Sewer - Drain Gully Trap Overflowing
- Foul Sewer - Overflowing Inside My House
- Foul Sewer - Pump Station Overflowing
- Foul Sewer - Complaint - Service Other
- Foul Sewer - Drain Gully Trap Overflowing
- Foul Sewer - Overflowing
- Foul Sewer - Problem Other

Exact Location Unknown (Road Name Only)

Problem Description
- FOUL DRAIN - BOUNDARY TRAP OVERFLOW
- FOUL SEWER - BLOCKED
- FOUL SEWER - COMPLAINT - SERVICE OTHER
- FOUL SEWER - DRAIN GULLY TRAP OVERFLOWING
- FOUL SEWER - OVERFLOWING
- FOUL SEWER - PROBLEM OTHER
- FOUL SEWER - PUMP STATION OVERFLOWING

MASON STREET INTEGRATED CATCHMENT MANAGEMENT PLAN

Dunedin 3 Waters Strategy

Figure 4-14
Mason Street Catchment Reported Wastewater Flooding

DISCIPLINE
Stormwater

Drawn: MM
Approved: SDH
Map No: 42173227
Scale: 1:7,500
Plot Date: Sep 2011
Revision: A

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DISCLAIMER: Whilst we have attempted to produce mapping that is as reliable as possible, Dunedin City Council and its consultants (Opus / URS) accept no responsibility for the accuracy of the mapping, nor any decisions made based on it. The mapping was prepared for strategic planning purposes only. It indicates the predicted likelihood of flooding from stormwater reticulation for defined areas, based on the best available information at the time of preparation and is subject to uncertainty. The mapping is not sufficiently detailed to account for individual properties, as individual properties may be subject to local factors not considered in the modeling.
MASON STREET INTEGRATED CATCHMENT MANAGEMENT PLAN

Figure 12-1
Mason Street Catchment Options Overview Plan

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Legend
- Mason Street Catchment Boundary
- Land Parcels
- Stormwater Network
- Mason Street Catchment Outfall

Flood Depth - Worst Case 1 in 100 yr ARI Rainfall
- 50 - 100 mm
- 100 - 200 mm
- 200 - 300 mm
- > 300 mm

M1: Serpentine Avenue Upgrade
M2: Catchment Capacity (Upper Catchment)
M3: On-Site Detention (Upper Catchment)
M4: In-Line Catchment Detention (Upper Catchment)
M5: Off-Line Catchment Detention (Upper Catchment)
M6: Siphon flows from Rattray Street to bubble-up at Queens Garden
M7: Lower the road corridor levels of Princess Street
M8: Increase Inlet Capacity on Rattray Street
M9: Fill dip in Rattray Street
M10: System Upgrade with New Outfall
M11: Fill dip in Bond Street
M12: Raise levels of floodprone buildings

DUDEIN 3 WATERS STRATEGY
Mason Street Catchment Options Overview Plan

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