

## **COMPREHENSIVE DISCHARGE REGISTER**

**CWR NO. 111**

**TITLE: Howick Minor Catchments.**

**WATER RIGHT/RESOURCE CONSENT No.**

**COMPREHENSIVE DISCHARGE CONSENT No.**

**EXPIRY DATE: -**

**CATCHMENT SIZE:** 101 ha (total area of combined catchments).

**POINT OF DISCHARGE:**

Discharging to the Tamaki Straight, of the Hauraki Gulf. Refer to attached Flood Hazard Map. 20 outfalls: A-T

**PEAK DISCHARGE:** 20 m<sup>3</sup>/s (1% AEP) from 20 points.

**PRIMARY DESIGN STANDARD:** Varies.

**SECONDARY DESIGN STANDARD:** 1 % AEP.

**FLOOR LEVEL RESTRICTION:**

0.5m above 1% AEP;

except where 1 % AEP flowpath is intercepted by roadways - **1m** above roadway level;

where the property lies on the overland flow path - 1.5m above average ground level across 10m wide section of flowpath valley;

**or** refer to the Land Information Register;

**or** refer to the Proposed District Plan (Section 9.9.1.2 (c) ), **whichever is the more rigorous.**

**OTHER CONDITIONS: -**

**COMPREHENSIVE DISCHARGE CONSENT LEVY: N/A\***

**S.W. QUALITY LEVY: N/A\***

\*Refer to Financial Contributions Register for updated figures.

## **PROPOSED WORK:**

This is outlined on the accompanying diagram, 'Management Plan Key Features'.

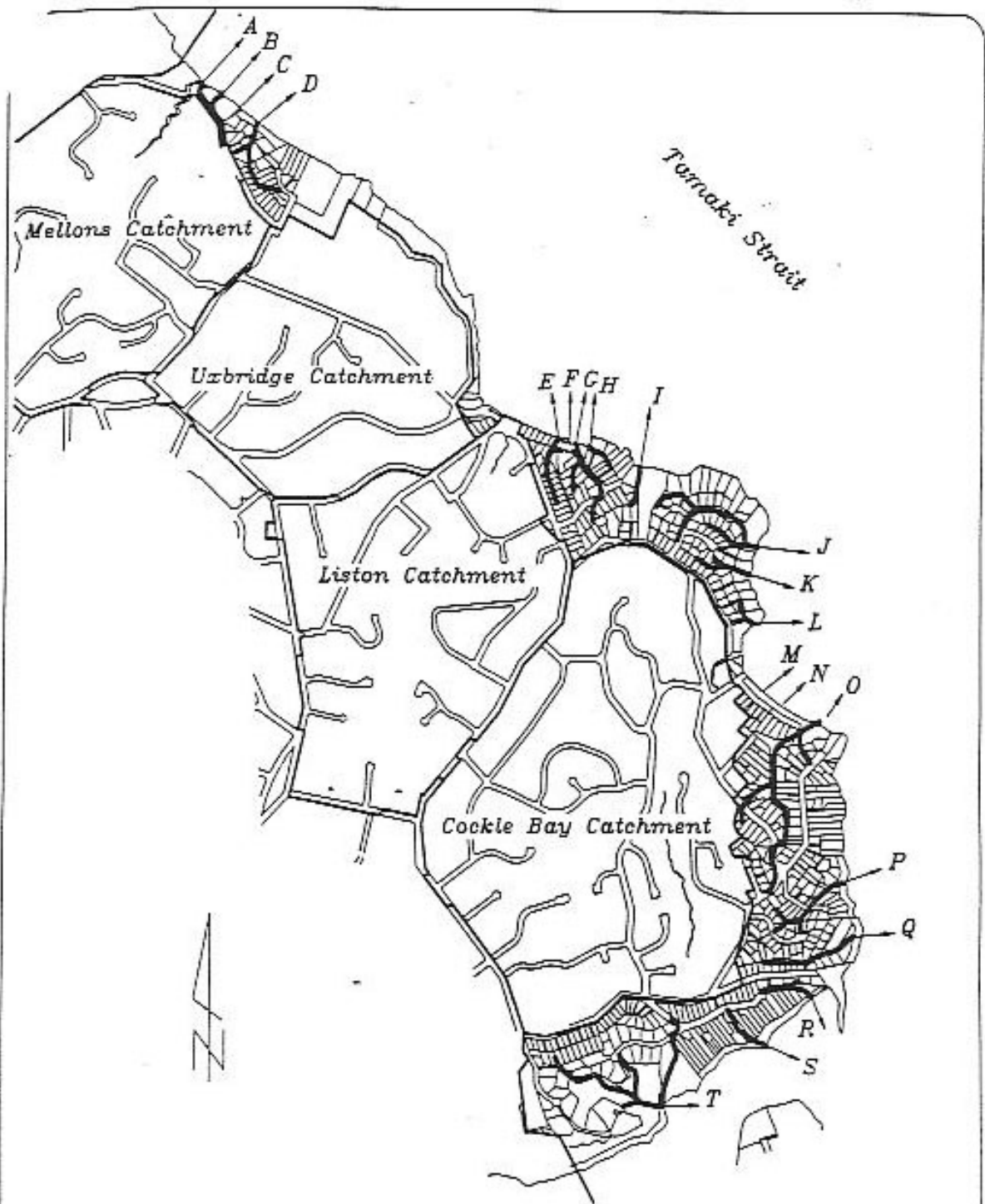
**COST:** \* \$16,000 (approx.)(excluding both design costs and GS'I), as at June 1993.

## **COMMENTS:**

- At present there is limited publicly owned primary drainage. Private primary drainage is often constructed in former watercourses and diameter, grade and condition of these pipes vary widely from section to section. It is probable that much of this has been constructed without proper allowance for overland flows.
- 18 outfalls are pipe outfalls. 2 outfalls are gullies identified as discharging stormwater runoff from overland flow without a primary drainage system.
- Allow for possible sea level increase as per Section 9.9.1.2 of the Proposed District Plan (site level = 0.5m above 2.9m DOSLI datum).
- Revegetation should take place in those areas susceptible to scouring to minimise the potential for erosion. This should be monitored to gauge the effectiveness of the planting. Open gullies are to remain as natural as possible.
- Future development should, as far as possible, connect to existing public drains.

*Diagrams Included:* Flood Hazard Map

\*Refer to Financial Contributions Register for updated figures.



*Howick Minor Catchment  
Flood Hazard Map*

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*Fig 35*