# Environmental Planning Statement

**Comprehensive development of site B**
**as per approved Planning Policy for Ta' Masrija Mellieha**

**To construct four apartment blocks to include in total**
**48 residential units and 48 basement garages, and a public area**

**Outline development for the**
**construction of maisonettes, apartments, penthouses and underlying garages**

Appendix Eight

**Annex One to Appendix Seven (statement by the Periti)**

29 September 2011

ERSLI
consultants
Environmental *and* Resource Management
Spatial *and* Landscape Planning
Infrastructural Planning

**01/09/2011**

**Ta' Masrija Development – Mellieha**

**Provision of Reservoirs**

Enclosed is the schematic plan indicating the location of the reservoirs at basement level. These reservoirs shall collect rainwater from the roofs, terraces and balconies of the proposed blocks.

## Site D

1. **The proposal**
   The proposal caters for four reservoirs, each location within the proximity of each of the four blocks. Rainwater is collected via floor drains/catch pits on the roofs, terraces and balconies, chanelled via dedicated pipework to the underground reservoirs. This water can then be utilized as water for irrigation and also as 2nd class water for the proposed development.

2. **Basis for Reservoir Size**
   The reservoirs have been sized on the basis of the following criteria, namely:

a) Total exposed footprint of the four blocks as follows:

| Block | Exposed Area (sqm) |
|---|---|
| Block A | 957 |
| Block B | 957 |
| Block C | 916 |
| Block D | 753 |
| **Total Area** | **3,582** |

b) Average yearly rainfall amounting to 550mm. Statistically this rainfall is recorded between the months of September and march. This yields a volume of **1970m³/pa**, or **280m³** per month throughout the rainy period.

c) Daily use of 2nd class water in proposed development, has a statistical amount of **7.5m³** per person per year. Based on the proposed number of units (75) having a three person occupancy, a total of **1700m³** of water shall be used as 2nd class water or **140m³** per month.

d) Throughout the rainy period a "surplus" of 140m³ per month is expected. Thus over the 7 month rainy season the total accumulated water that shall require storage amounts to **980m³**. This represents the cumulative volume of all four reservoirs.

e) Volume per reservoir shall amount to 245m³. A proposal of four reservoirs each having a volume of circa **245m³** is shown on the attached drawing.

3. **Conclusions**
   The reservoirs shown have been sized to reflect the local condition and regulations currently in effect. In applying these parameters the proposed development shall not be dispersing any collected rainwater (as noted above) to the offsite areas.

## Site B

1. **The proposal**
   The proposal caters for five reservoirs, strategically located next to each other underneath the main route through the development. Rainwater is collected via floor drains/catch pits on the roofs, terraces and balconies, chanelled via dedicated pipework to the underground reservoirs. This water can then be utilized as water for irrigation and also as 2nd class water for the proposed development.

2. **Basis for Reservoir Size**
   The reservoirs have been sized on the basis of the following criteria, namely:

a) Total exposed footprint of apartment blocks as follows:

| Proposed Apartment blocks | Exposed Area (sqm) |
|---|---|
| Back blocks | 4026 |
| Back blocks internal yards | 770 |
| Front blocks | 3096 |
| **Total Area** | **7,892** |

b) Average yearly rainfall amounting to 550mm. Statistically this rainfall is recorded between the months of September and march. This yields a volume of **4340m³/pa**, or **361m³** per month throughout the rainy period.

c) Daily use of 2nd class water in proposed development, has a statistical amount of **7.5m³** per person per year. Based on the proposed number of units (255) having a three person occupancy, a total of **5800m³** of water shall be used as 2nd class water or **485m³** per month.

d) Throughout the rainy period no "surplus" of water is expected.

3. **Conclusions**
   The reservoirs shown have been sized to reflect the local condition and regulations currently in effect. In applying these parameters the proposed development shall not be dispersing any collected rainwater to the offsite areas.

## Site C

1. **The proposal**

   The proposal caters for two reservoirs, strategically located next to each other underneath the back block. Rainwater is collected via floor drains/catch pits on the roofs, terraces and balconies, chanelled via dedicated pipework to the underground reservoirs. This water can then be utilized as water for irrigation and also as 2nd class water for the proposed development.

2. **Basis for Reservoir Size**

   The reservoirs have been sized on the basis of the following criteria, namely:

a) Total exposed footprint of apartment blocks as follows:

| Proposed Apartment blocks | Exposed Area (sqm) |
|---|---|
| Back block | 682 |
| Front Block | 675 |
| **Total Area** | **1,357** |

b) Average yearly rainfall amounting to 550mm. Statistically this rainfall is recorded between the months of September and march. This yields a volume of **750m$^3$/pa**, or **65m$^3$** per month throughout the rainy period.

c) Daily use of 2nd class water in proposed development, has a statistical amount of **7.5m$^3$** per person per year. Based on the proposed number of units (44) having a three person occupancy, a total of **990m$^3$** of water shall be used as 2nd class water or **82m$^3$** per month.

d) Throughout the rainy period no “surplus” of water is expected.

3. **Conclusions**

   The reservoirs shown have been sized to reflect the local condition and regulations currently in effect. In applying these parameters the proposed development shall not be dispersing any collected rainwater to the offsite areas.

- Reservoirs volume corresponds to 60% of roof areas

- All collected water to be used as second class water for irrigation of landscaped areas and cleaning of outdoor areas

TRIQ TA' MASRIJA

TRIQ TA' MASRIJA

TRIQ IR-RATTAN

TRIQ L-IZBARK TAL-FRANCIZI

Site B

Site D

Site C

**5 Reservoirs**
290 cu m of water each

**Reservoir #1**
210 cu m of water

**Reservoir #2**
210 cu m of water

**2 Reservoirs**
245 cu m of water

**2 Reservoirs**
245 cu m of water

3RD PARTY PROPERTY

MELLIEHA BY-PASS

Public Promenade

PROMENADE

PROMENADE

10m 0 10 20 30 40 50 60 70 80 90 100m

# TA' MASRIJA DEVELOPMENT

## Proposed Reservoirs

MP&DC