

## **TABLES**

Table 2-1 Roads and Culverts Across Trunk Drains in Drainage Area of Sg. Air Mendidih

| Name of Road                              | Drain Crossed    | Crossing Point* <sup>1</sup> | Type of Culvert | Size of Culvert                          |
|---|------------------|------------------------------|-----------------|--|
| (1) Jalan Badlishah (Sg. Petani – Bedong) | Sg. Air Mendidih | 1100m                        | Box Culvert     | 1.7m (depth) x 1.85m (width) x 2 (lanes) |
| (2) Unknown                               | Line N           | 1400m                        | Pipe Culvert    | 1.4m (diameter) x 1 lane                 |
| (3) Unknown                               | Line N           | 1500m                        | Pipe Culvert    | 1.5m (diameter) x 2 lanes                |
| (4) Unknown (Sg. Petani – Alor Setar)     | Line N           | 2400m                        | Box Culvert     | 1.3m (depth) x 2.5m (width) x 1 lane     |
| (5) Unknown                               | Line N           | 2500m                        | Box Culvert     | 1.3m (depth) x 4m (width) x 1 lane       |
| (6) Unknown                               | Line N           | 2750m                        | Box Culvert     | 1.0m (depth) x 2.5m (width) x 1 lane     |
| (7) Unknown                               | Line N           | 2050m                        | Box Culvert     | 1.1m (depth) x 2.5m (width) x 1 lane     |
| (8) Unknown                               | Line N           | 3200m                        | Pipe Culvert    | 0.9m (diameter) x 1 lane                 |
| (9) Unknown                               | Line P           | 1400m                        | Pipe Culvert    | 1.5m (diameter) x 1 lane                 |
| (10) Unknown                              | Line P           | 1500m                        | Pipe Culvert    | 1.2m (diameter) x 1 lane                 |
| (11) Unknown                              | Line P           | 1800m                        | Pipe Culvert    | 1.0m (diameter) x 2 lanes                |
| (12) Unknown                              | Line O           | 2200m                        | Box Culvert     | 1.0m(depth) x 1.0m (width) x 1lane       |

\*: Distance from the downstream end of Sg. Air Mendidih.

Table 2-2 (1/2) Existing Land Use

(Unit: ha)

| River Basin   | Sub-Basin No. | Catchment Area | Area for Each Land Use Category |            |          |               |            |         |       |          |      |      |        |       |      |        |
|---------------|---------------|----------------|---------------------------------|------------|----------|---------------|------------|---------|-------|----------|------|------|--------|-------|------|--------|
|               |               |                | Residential                     | Commercial | Industry | Institutional | Recreation | Natural | Paddy | Dry Crop | Road | Pond | Others |       |      |        |
| Air Mendidieh | AM- 1         | 6.96           | 3.43                            | -          | -        | -             | -          | -       | -     | -        | -    | -    | -      | 3.53  | -    | -      |
|               | AM- 2         | 5.36           | 2.97                            | -          | -        | -             | -          | 1.12    | -     | -        | -    | -    | -      | 1.27  | -    | -      |
|               | AM- 3         | 24.53          | 9.84                            | -          | -        | -             | -          | 0.55    | -     | -        | -    | -    | -      | 8.06  | -    | 1.20   |
|               | AM- 4         | 8.87           | 6.81                            | -          | -        | -             | -          | 0.44    | -     | -        | -    | -    | -      | 1.62  | -    | -      |
|               | AM- 5         | 25.42          | -                               | -          | -        | -             | 15.71      | -       | -     | -        | -    | -    | -      | 1.37  | -    | 5.12   |
|               | AM- 6         | 13.69          | 6.61                            | -          | -        | -             | -          | 1.03    | -     | -        | -    | -    | -      | 1.66  | -    | 3.90   |
|               | AM- 7         | 54.47          | -                               | -          | -        | -             | -          | -       | -     | -        | -    | -    | -      | 1.53  | -    | 51.42  |
|               | AM- 8         | 17.69          | 3.35                            | -          | -        | -             | -          | -       | -     | -        | -    | -    | -      | 2.15  | -    | 12.19  |
|               | AM- 9         | 1.59           | 0.21                            | -          | -        | -             | -          | -       | -     | -        | -    | -    | -      | 0.36  | -    | 1.02   |
|               | AM- 10        | 9.58           | 4.02                            | -          | -        | -             | -          | -       | -     | -        | -    | -    | -      | 1.13  | -    | 4.43   |
|               | AM- 11        | 11.36          | 3.36                            | -          | -        | -             | 6.20       | -       | -     | -        | -    | -    | -      | 1.45  | -    | 0.35   |
|               | AM- 12        | 14.35          | 3.38                            | -          | 0.42     | -             | -          | -       | 0.88  | -        | -    | -    | -      | 1.12  | -    | 8.55   |
|               | AM- 13        | 46.42          | 26.42                           | -          | -        | -             | -          | -       | 2.18  | -        | -    | -    | -      | 13.93 | -    | 3.89   |
|               | AM- 14        | 12.43          | 5.73                            | -          | -        | -             | 4.28       | -       | -     | -        | -    | -    | -      | 2.42  | -    | -      |
|               | AM- 15        | 19.73          | 10.43                           | -          | -        | -             | -          | -       | -     | -        | -    | -    | -      | 6.22  | -    | 1.46   |
|               | AM- 16        | 50.32          | 9.29                            | -          | 1.62     | -             | -          | -       | -     | -        | -    | -    | -      | 8.03  | -    | 15.34  |
|               | AM- 17        | 10.93          | 3.73                            | -          | 3.61     | -             | -          | 14.05   | -     | -        | -    | -    | -      | 0.88  | -    | 3.61   |
|               | AM- 18        | 25.35          | 11.52                           | -          | 1.13     | -             | -          | 1.58    | -     | -        | -    | -    | -      | 2.03  | -    | 5.73   |
|               | AM- 19        | 3.38           | 1.28                            | -          | 0.88     | -             | -          | 0.67    | -     | -        | -    | -    | -      | 0.33  | -    | 0.89   |
| sub-total     | 362.43        | 112.38         | 18.50                           | -          | -        | 42.49         | 6.20       | -       | -     | -        | -    | -    | 59.09  | 4.91  | -    | 118.86 |
| Line G        | LG- 1         | 75.86          | -                               | -          | -        | -             | 1.02       | -       | -     | -        | -    | -    | -      | 0.03  | -    | 0.13   |
|               | LG- 2         | 69.59          | 30.53                           | 1.29       | -        | -             | 0.36       | 9.12    | -     | -        | -    | -    | -      | 16.46 | 1.56 | 5.62   |
|               | LG- 3         | 4.86           | -                               | -          | -        | -             | -          | -       | -     | -        | -    | -    | -      | 0.82  | -    | 0.18   |
|               | LG- 4         | 17.70          | 4.42                            | -          | -        | 0.28          | -          | 3.13    | -     | -        | -    | -    | -      | 4.92  | -    | 4.95   |
|               | LG- 5         | 16.04          | -                               | -          | -        | 3.45          | -          | -       | -     | -        | -    | -    | -      | 1.19  | 0.06 | 11.34  |
|               | LG- 6         | 28.04          | 9.58                            | 1.83       | -        | -             | -          | -       | 3.62  | -        | -    | -    | -      | 5.46  | 0.56 | 6.99   |
|               | LG- 7         | 20.49          | 1.22                            | 0.60       | -        | -             | -          | -       | -     | -        | -    | -    | -      | 0.79  | -    | 17.88  |
|               | LG- 8         | 15.72          | 1.89                            | -          | -        | -             | -          | -       | -     | -        | -    | -    | -      | 0.55  | -    | 13.28  |
|               | LG- 9         | 7.05           | 1.96                            | -          | -        | -             | -          | -       | -     | -        | -    | -    | -      | 0.45  | -    | 4.64   |
|               | LG- 10        | 12.53          | 2.32                            | -          | -        | -             | -          | -       | -     | -        | -    | -    | -      | 1.17  | -    | 9.04   |
|               | LG- 11        | 4.79           | 1.53                            | -          | -        | 1.30          | -          | -       | -     | -        | -    | -    | -      | 0.61  | -    | 1.35   |
|               | LG- 12        | 26.87          | 3.92                            | 0.66       | -        | -             | 0.12       | -       | -     | -        | -    | -    | -      | 3.13  | -    | 5.84   |
| Sub-total     | 299.54        | 57.37          | 4.38                            | -          | 5.03     | 1.50          | 15.87      | -       | -     | -        | -    | -    | 35.58  | 2.25  | -    | 81.24  |

Note: Dub-basin No. LG-12 in Line G is excluded from the existing catchment area, but could be included through alternative plan on drainage channel network.

Table 2-2 (2/2) Existing Land Use

| River Basin  | Sub-Basin No. | Total Area (ha) | Area for Each Land Use Category (ha) |            |          |               |            |         |       |          |      |          |        |   |        |        |
|--------------|---------------|-----------------|--------------------------------------|------------|----------|---------------|------------|---------|-------|----------|------|----------|--------|---|--------|--------|
|              |               |                 | Residential                          | Commercial | Industry | Institutional | Recreation | Natural | Paddy | Dry Crop | Road | Pond     | Others |   |        |        |
| Pokkok Mangg | L-1           | 88.17           | 22.58                                | 2.03       | -        | 0.13          | -          | -       | -     | -        | -    | -        | 41.30  | - | -      | 14.38  |
|              | L-2           | 76.20           | 20.35                                | -          | 1.20     | 0.28          | -          | -       | -     | -        | -    | -        | 47.42  | - | -      | 0.37   |
|              | L-3           | 103.58          | 38.48                                | 0.40       | -        | 2.38          | -          | -       | -     | -        | -    | -        | 49.07  | - | -      | 1.29   |
|              | P-1           | 28.77           | 4.12                                 | 5.40       | -        | 0.12          | -          | -       | -     | -        | -    | -        | -      | - | -      | 12.39  |
|              | P-2           | 60.57           | 30.96                                | -          | -        | -             | 2.85       | -       | -     | -        | -    | -        | 10.10  | - | -      | 8.92   |
|              | P-3           | 34.78           | 10.04                                | -          | -        | 0.10          | -          | -       | -     | -        | -    | -        | 18.38  | - | -      | 3.75   |
| P-4          | 15.47         | 7.33            | -                                    | -          | 0.14     | -             | -          | -       | -     | -        | -    | 3.26     | -      | - | 0.02   |        |
| P-5          | 63.36         | 31.11           | 0.79                                 | -          | 0.88     | 1.07          | -          | -       | -     | -        | -    | 14.27    | -      | - | 4.22   |        |
|              | Sub-total     | 470.90          | 164.97                               | 8.62       | 2.08     | 4.22          | 2.85       | -       | -     | -        | -    | 183.80   | -      | - | 45.34  |        |
| Ayer Salak   | DP-1          | 134.60          | -                                    | -          | -        | -             | -          | -       | -     | -        | -    | -        | -      | - | -      | 132.60 |
|              | DP-2          | 98.10           | -                                    | -          | 52.58    | -             | -          | -       | -     | -        | -    | -        | 5.11   | - | -      | 19.78  |
|              | DP-3          | 128.90          | -                                    | -          | -        | -             | -          | -       | -     | -        | -    | -        | 128.90 | - | -      | -      |
|              | AB-1          | 365.14          | 35.94                                | -          | -        | 1.11          | -          | 1.49    | -     | -        | -    | -        | 297.74 | - | -      | 19.17  |
|              | AB-2          | 220.35          | 11.32                                | -          | 1.14     | -             | -          | -       | -     | -        | -    | -        | 175.15 | - | -      | 25.69  |
|              | AS-1          | 1,134.25        | 163.94                               | -          | 71.24    | -             | -          | -       | 1.97  | -        | -    | -        | 676.32 | - | -      | 138.38 |
|              | Sub-total     | 2,081.34        | 211.20                               | -          | 124.96   | 1.11          | 3.46       | -       | -     | -        | -    | 1,283.22 | -      | - | 335.62 |        |

Table 2-3 (1/2) Projected Land Use in the Year of 2005

| River Basin   | Sub-Basin No. | Total Area (ha) | Area for Each Land Use Category (ha) |            |          |               |            |         |       |          |      |      |        |       |      |   |       |
|---------------|---------------|-----------------|--------------------------------------|------------|----------|---------------|------------|---------|-------|----------|------|------|--------|-------|------|---|-------|
|               |               |                 | Residential                          | Commercial | Industry | Institutional | Recreation | Natural | Paddy | Dry Crop | Road | Pond | Others |       |      |   |       |
| Air Mendidieh | AM- 1         | 6.96            | 3.43                                 | -          | -        | -             | -          | -       | -     | 1.12     | -    | -    | -      | 3.53  | -    | - | -     |
|               | AM- 2         | 5.36            | 2.97                                 | -          | -        | -             | -          | -       | -     | 1.12     | -    | -    | -      | 1.27  | -    | - | -     |
|               | AM- 3         | 24.53           | 10.49                                | 3.92       | -        | -             | -          | -       | -     | 0.55     | -    | -    | -      | 8.06  | -    | - | 0.31  |
|               | AM- 4         | 8.87            | 6.81                                 | -          | -        | -             | -          | -       | 0.44  | -        | -    | -    | -      | 1.62  | -    | - | -     |
|               | AM- 5         | 25.42           | -                                    | -          | -        | 23.77         | -          | -       | -     | -        | -    | -    | -      | 1.65  | -    | - | -     |
|               | AM- 6         | 13.69           | 6.61                                 | -          | -        | -             | -          | -       | 1.03  | -        | -    | -    | -      | 1.66  | -    | - | 3.90  |
|               | AM- 7         | 54.47           | 22.82                                | 13.62      | -        | -             | -          | -       | 1.66  | -        | -    | -    | -      | 16.37 | -    | - | -     |
|               | AM- 8         | 17.69           | 3.35                                 | -          | -        | -             | -          | -       | -     | -        | -    | -    | -      | 2.15  | -    | - | 12.19 |
|               | AM- 9         | 1.59            | 0.21                                 | -          | -        | -             | -          | -       | -     | -        | -    | -    | -      | 0.36  | -    | - | 1.02  |
|               | AM- 10        | 9.58            | 4.02                                 | -          | -        | -             | -          | -       | -     | -        | -    | -    | -      | 1.13  | -    | - | 4.43  |
|               | AM- 11        | 11.36           | 3.58                                 | -          | -        | -             | 6.20       | -       | -     | -        | -    | -    | -      | 1.58  | -    | - | -     |
|               | AM- 12        | 14.35           | 3.38                                 | 0.42       | -        | -             | -          | -       | -     | 0.88     | -    | -    | -      | 1.12  | -    | - | 8.55  |
|               | AM- 13        | 46.42           | 26.81                                | -          | -        | -             | -          | -       | 2.18  | -        | -    | -    | -      | 14.02 | -    | - | 3.41  |
|               | AM- 14        | 12.43           | 5.73                                 | -          | -        | -             | 4.28       | -       | -     | -        | -    | -    | -      | 2.42  | -    | - | -     |
|               | AM- 15        | 19.73           | 10.43                                | -          | -        | -             | -          | -       | -     | -        | -    | -    | -      | 6.22  | -    | - | 1.46  |
|               | AM- 16        | 50.32           | 9.29                                 | 3.61       | -        | -             | 14.05      | -       | -     | -        | -    | -    | -      | 8.03  | -    | - | 15.34 |
|               | AM- 17        | 10.93           | 3.73                                 | 1.13       | -        | -             | 1.58       | -       | -     | -        | -    | -    | -      | 0.88  | -    | - | 3.61  |
|               | AM- 18        | 25.35           | 11.52                                | 5.40       | -        | -             | 0.67       | -       | -     | -        | -    | -    | -      | 2.03  | -    | - | 5.73  |
|               | AM- 19        | 3.38            | 1.28                                 | 0.88       | -        | -             | -          | -       | -     | -        | -    | -    | -      | 0.33  | -    | - | 0.89  |
|               | Sub-total     | 362.43          | 136.46                               | 30.60      | -        | -             | 50.55      | 7.86    | -     | -        | -    | -    | -      | 74.43 | 1.69 | - | 60.84 |
| Line G        | LG- 1         | 75.86           | -                                    | -          | -        | -             | 1.02       | -       | -     | -        | -    | -    | -      | 0.03  | 0.07 | - | 0.13  |
|               | LG- 2         | 69.59           | 30.53                                | 1.29       | -        | -             | 0.36       | 9.12    | -     | -        | -    | -    | -      | 16.46 | 1.56 | - | 5.62  |
|               | LG- 3         | 4.86            | -                                    | -          | -        | -             | -          | -       | -     | -        | -    | -    | -      | 0.82  | -    | - | 0.18  |
|               | LG- 4         | 17.70           | 7.37                                 | -          | -        | 0.28          | -          | 4.15    | -     | -        | -    | -    | -      | 5.90  | -    | - | -     |
|               | LG- 5         | 16.04           | 1.01                                 | 0.23       | -        | 3.45          | -          | 0.11    | -     | -        | -    | -    | -      | 1.57  | 0.06 | - | 9.61  |
|               | LG- 6         | 28.04           | 12.32                                | 1.83       | -        | -             | 3.43       | 3.62    | -     | -        | -    | -    | -      | 6.28  | 0.56 | - | -     |
|               | LG- 7         | 20.49           | 6.18                                 | 0.89       | -        | -             | -          | 0.69    | -     | -        | -    | -    | -      | 2.66  | -    | - | 10.07 |
|               | LG- 8         | 15.72           | 1.92                                 | -          | -        | -             | -          | 0.21    | -     | -        | -    | -    | -      | 0.62  | -    | - | 12.97 |
|               | LG- 9         | 7.05            | 3.68                                 | -          | -        | -             | -          | 0.40    | -     | -        | -    | -    | -      | 1.45  | -    | - | 1.52  |
|               | LG- 10        | 12.53           | 3.07                                 | 0.45       | -        | -             | -          | 0.34    | -     | -        | -    | -    | -      | 1.06  | -    | - | 7.61  |
|               | LG- 11        | 4.79            | 1.53                                 | -          | -        | 1.30          | -          | -       | -     | -        | -    | -    | -      | 0.61  | -    | - | 1.35  |
|               | LG- 12        | 26.87           | 3.92                                 | 0.66       | -        | -             | 0.12       | -       | -     | -        | -    | -    | -      | 3.13  | -    | - | 5.84  |
|               | Sub-total     | 299.54          | 71.53                                | 5.35       | 5.03     | 4.93          | 18.64      | -       | -     | -        | -    | -    | 40.59  | 2.25  | -    | - | 54.90 |

Note: Dub-basin No. LG-12 in Line G is excluded from the existing catchment area, but could be included through alternative plan on drainage channel network.

Table 2-3 (2/2) Projected Land Use in the Year of 2005

| River Basin  | Sub-Basin No. | Total Area (ha) | Area for Each Land Use Category (ha) |            |          |               |            |         |       |          |          |        |        |   |        |
|--------------|---------------|-----------------|--------------------------------------|------------|----------|---------------|------------|---------|-------|----------|----------|--------|--------|---|--------|
|              |               |                 | Residential                          | Commercial | Industry | Institutional | Recreation | Natural | Paddy | Dry Crop | Road     | Pond   | Others |   |        |
| Pokkok Mangg | L- 1          | 88.17           | 22.58                                | 4.93       | -        | 0.13          | -          | -       | -     | -        | -        | 41.30  | -      | - | 10.57  |
|              | L- 2          | 76.20           | 20.35                                | 0.49       | 1.20     | 0.28          | -          | -       | -     | -        | -        | 47.14  | -      | - | 1.29   |
|              | L- 3          | 103.58          | 38.48                                | 0.40       | -        | 2.38          | -          | -       | -     | -        | -        | 49.07  | -      | - | 11.51  |
|              | P- 1          | 28.77           | 4.12                                 | 6.07       | -        | 0.12          | -          | -       | -     | -        | -        | -      | -      | - | 4.76   |
|              | P- 2          | 60.57           | 33.87                                | -          | -        | -             | 3.27       | -       | -     | -        | -        | 10.10  | -      | - | 3.75   |
|              | P- 3          | 34.78           | 10.04                                | -          | -        | -             | 0.10       | -       | -     | -        | -        | 18.38  | -      | - | 0.02   |
| Ayer Salak   | P- 4          | 15.47           | 7.33                                 | -          | -        | 0.14          | -          | -       | -     | -        | 3.26     | -      | -      | - | 4.22   |
|              | P- 5          | 63.36           | 31.11                                | 0.79       | 0.88     | 1.07          | -          | -       | -     | -        | 14.27    | -      | -      | - | 36.12  |
|              | Sub-total     | 470.90          | 167.88                               | 12.68      | 2.08     | 4.22          | 3.27       | -       | -     | -        | 183.52   | -      | -      | - | -      |
| Ayer Salak   | DP- 1         | 134.60          | 18.94                                | -          | 80.22    | -             | 2.71       | -       | -     | -        | -        | 4.02   | -      | - | -      |
|              | DP- 2         | 98.10           | -                                    | -          | 68.44    | -             | -          | -       | -     | -        | -        | -      | -      | - | -      |
|              | DP- 3         | 128.90          | -                                    | -          | -        | -             | -          | -       | -     | -        | -        | 128.90 | -      | - | -      |
|              | AB- 1         | 365.14          | 48.71                                | -          | -        | 1.11          | 3.31       | -       | -     | -        | -        | 292.41 | -      | - | 6.26   |
|              | AB- 2         | 220.35          | 13.30                                | -          | -        | -             | 0.28       | -       | -     | -        | -        | 147.12 | -      | - | 2.61   |
|              | AS- 1         | 1,134.25        | 280.95                               | -          | 107.17   | -             | -          | 18.69   | -     | -        | 492.87   | -      | -      | - | 107.39 |
|              | Total         | 2,081.34        | 361.90                               | -          | 293.66   | 1.11          | 24.99      | -       | -     | -        | 1,065.32 | -      | -      | - | 116.26 |

Table 2-4 (1/2) Projected Land Use in the Year of 2020

| River Basin   | Sub-Basin No. | Total Area (ha) | Area for Each Land Use Category (ha) |            |          |               |            |         |       |          |      |      |        |       |       |   |   |   |      |      |
|---------------|---------------|-----------------|--------------------------------------|------------|----------|---------------|------------|---------|-------|----------|------|------|--------|-------|-------|---|---|---|------|------|
|               |               |                 | Residential                          | Commercial | Industry | Institutional | Recreation | Natural | Paddy | Dry Crop | Road | Pond | Others |       |       |   |   |   |      |      |
| Air Mendidieh | AM- 1         | 6.96            | 3.43                                 | -          | -        | -             | -          | -       | -     | -        | -    | -    | -      | -     | -     | - | - | - | -    |      |
|               | AM- 2         | 5.36            | 2.97                                 | -          | -        | -             | -          | -       | -     | 1.12     | -    | -    | -      | -     | -     | - | - | - | -    |      |
|               | AM- 3         | 24.53           | 10.62                                | 3.92       | -        | -             | -          | -       | -     | 0.55     | -    | -    | -      | -     | -     | - | - | - | -    |      |
|               | AM- 4         | 8.87            | 6.81                                 | -          | -        | -             | -          | -       | -     | 0.44     | -    | -    | -      | -     | -     | - | - | - | -    |      |
|               | AM- 5         | 25.42           | -                                    | -          | -        | 23.77         | -          | -       | -     | -        | -    | -    | -      | -     | -     | - | - | - | -    |      |
|               | AM- 6         | 13.69           | 8.26                                 | 0.93       | -        | -             | -          | -       | -     | 1.03     | -    | -    | -      | -     | -     | - | - | - | -    |      |
|               | AM- 7         | 54.47           | 22.82                                | 13.62      | -        | -             | -          | -       | -     | 1.66     | -    | -    | -      | -     | -     | - | - | - | -    |      |
|               | AM- 8         | 17.69           | 11.70                                | -          | -        | -             | -          | -       | -     | 1.30     | -    | -    | -      | -     | -     | - | - | - | -    |      |
|               | AM- 9         | 1.59            | 0.21                                 | 0.76       | -        | -             | -          | -       | -     | -        | -    | -    | -      | -     | -     | - | - | - | -    |      |
|               | AM- 10        | 9.58            | 3.86                                 | 3.20       | -        | -             | -          | -       | -     | -        | -    | -    | -      | -     | -     | - | - | - | -    |      |
|               | AM- 11        | 11.36           | 3.58                                 | -          | -        | -             | 6.20       | -       | -     | -        | -    | -    | -      | -     | -     | - | - | - | -    |      |
|               | AM- 12        | 14.35           | 9.36                                 | 0.42       | -        | -             | -          | -       | -     | -        | 1.03 | -    | -      | -     | -     | - | - | - | -    |      |
|               | AM- 13        | 46.42           | 28.60                                | -          | -        | -             | -          | -       | -     | 3.10     | -    | -    | -      | -     | -     | - | - | - | -    |      |
|               | AM- 14        | 12.43           | 6.07                                 | -          | -        | -             | 4.28       | -       | -     | -        | -    | -    | -      | -     | -     | - | - | - | -    |      |
|               | AM- 15        | 19.73           | 11.89                                | -          | -        | -             | -          | -       | -     | -        | -    | -    | -      | -     | -     | - | - | - | -    |      |
|               | AM- 16        | 50.32           | 10.29                                | 8.10       | -        | -             | -          | -       | -     | -        | -    | -    | -      | -     | -     | - | - | - | -    |      |
|               | AM- 17        | 10.93           | 0.59                                 | 8.54       | -        | -             | -          | 23.40   | -     | -        | -    | -    | -      | -     | -     | - | - | - | -    |      |
|               | AM- 18        | 25.35           | 4.22                                 | 15.72      | -        | -             | -          | 1.58    | -     | -        | -    | -    | -      | -     | -     | - | - | - | -    |      |
|               | AM- 19        | 3.38            | -                                    | 2.42       | -        | -             | -          | -       | -     | -        | -    | -    | -      | -     | -     | - | - | - | -    |      |
| Sub-total     |               | 362.43          | 145.28                               | 59.25      | -        | 60.86         | -          | 10.23   | -     | 10.23    | -    | -    | -      | -     | 85.61 | - | - | - | 1.20 |      |
| Line G        | LG- 1         | 75.86           | 48.70                                | -          | -        | -             | 1.02       | -       | -     | 10.75    | -    | -    | -      | -     | 15.39 | - | - | - | -    |      |
|               | LG- 2         | 69.59           | 33.79                                | 1.29       | -        | -             | 3.44       | -       | -     | 9.48     | -    | -    | -      | -     | 17.49 | - | - | - | 1.56 |      |
|               | LG- 3         | 4.86            | 2.93                                 | -          | -        | -             | -          | -       | -     | -        | -    | -    | -      | -     | 1.75  | - | - | - | -    |      |
|               | LG- 4         | 17.70           | 7.34                                 | -          | -        | 0.28          | -          | -       | -     | 4.18     | -    | -    | -      | -     | 5.90  | - | - | - | -    |      |
|               | LG- 5         | 16.04           | 5.27                                 | 0.23       | -        | 7.27          | -          | -       | -     | 0.81     | -    | -    | -      | -     | 2.46  | - | - | - | -    |      |
|               | LG- 6         | 28.04           | 12.81                                | 1.83       | -        | -             | -          | -       | -     | 4.16     | -    | -    | -      | -     | 5.99  | - | - | - | 0.56 |      |
|               | LG- 7         | 20.49           | 13.84                                | 0.89       | -        | -             | -          | -       | -     | 1.57     | -    | -    | -      | -     | 4.19  | - | - | - | -    |      |
|               | LG- 8         | 15.72           | 10.59                                | -          | -        | -             | -          | -       | -     | 1.18     | -    | -    | -      | -     | 3.95  | - | - | - | -    |      |
|               | LG- 9         | 7.05            | 4.77                                 | -          | -        | -             | -          | -       | -     | 0.53     | -    | -    | -      | -     | 1.75  | - | - | - | -    |      |
|               | LG- 10        | 12.53           | 7.82                                 | 0.45       | -        | -             | -          | -       | -     | 0.92     | -    | -    | -      | -     | 3.34  | - | - | - | -    |      |
|               | LG- 11        | 4.79            | 3.47                                 | -          | -        | -             | -          | -       | -     | -        | -    | -    | -      | -     | 1.32  | - | - | - | -    |      |
|               | LG- 12        | 26.87           | 17.00                                | 1.56       | -        | -             | -          | 0.12    | -     | -        | 0.69 | -    | -      | -     | 6.41  | - | - | - | -    |      |
| Sub-total     |               | 299.54          | 168.33                               | 6.25       | 7.55     | 7.27          | 34.27      | -       | -     | 34.27    | -    | -    | -      | 69.94 | -     | - | - | - | 2.12 |      |
|               |               |                 |                                      |            |          |               |            |         |       |          |      |      |        |       |       |   |   |   |      | 3.81 |

Note: Dub-basin No. LG-12 in Line G is excluded from the existing catchment area, but could be included through alternative plan on drainage channel network.

Table 2-4 (2/2) Projected Land Use in the Year of 2020

| River Basin  | Sub-Basin No. | Total Area (ha) | Area for Each Land Use Category (ha) |            |          |               |            |         |       |          |      |      |        |        |      |
|--------------|---------------|-----------------|--------------------------------------|------------|----------|---------------|------------|---------|-------|----------|------|------|--------|--------|------|
|              |               |                 | Residential                          | Commercial | Industry | Institutional | Recreation | Natural | Paddy | Dry Crop | Road | Pond | Others |        |      |
| Pokkok Mangg | L- 1          | 88.17           | 58.89                                | 4.93       | 0.00     | 0.13          | 5.18       | 0.00    | 0.00  | 0.00     | 0.00 | 0.00 | 0.00   | 0.00   | 0.00 |
|              | L- 2          | 76.20           | 53.80                                | 0.49       | 0.39     | 0.28          | 4.78       | 0.00    | 0.00  | 0.00     | 0.00 | 0.00 | 0.00   | 0.00   | 0.00 |
|              | L- 3          | 103.58          | 73.36                                | 0.40       | 0.00     | 2.38          | 4.98       | 0.00    | 0.00  | 0.00     | 0.00 | 0.00 | 0.00   | 0.00   | 0.53 |
|              | P- 1          | 28.77           | 9.85                                 | 8.59       | 0.00     | 0.12          | 0.82       | 0.00    | 0.00  | 0.00     | 0.00 | 0.00 | 0.00   | 0.00   | 0.00 |
|              | P- 2          | 60.57           | 43.18                                | 0.00       | 0.00     | 0.00          | 4.71       | 0.00    | 0.00  | 0.00     | 0.00 | 0.00 | 0.00   | 0.00   | 1.46 |
|              | P- 3          | 34.78           | 25.53                                | 0.00       | 0.00     | 0.10          | 2.21       | 0.00    | 0.00  | 0.00     | 0.00 | 0.00 | 0.00   | 0.00   | 0.00 |
| P- 4         | 15.47         | 9.63            | 0.00                                 | 0.00       | 0.14     | 0.33          | 0.00       | 0.00    | 0.00  | 0.00     | 0.00 | 0.00 | 0.00   | 0.00   |      |
| P- 5         | 63.36         | 44.75           | 0.71                                 | 0.71       | 0.00     | 1.07          | 1.95       | 0.00    | 0.00  | 0.00     | 0.00 | 0.00 | 0.00   | 0.00   |      |
|              | Sub-total     | 470.90          | 318.99                               | 15.12      | 0.39     | 4.22          | 24.96      | 0.00    | 0.00  | 0.00     | 0.00 | 0.00 | 0.00   | 0.00   | 1.99 |
| Ayer salak   | DP- 1         | 134.60          | 18.94                                | 0.00       | 80.22    | 0.00          | 2.71       | 0.00    | 0.00  | 0.00     | 0.00 | 0.00 | 0.00   | 0.00   | 0.00 |
|              | DP- 2         | 98.10           | 0.00                                 | 0.00       | 71.50    | 0.00          | 0.00       | 0.00    | 0.00  | 0.00     | 0.00 | 0.00 | 0.00   | 0.00   | 0.00 |
|              | DP- 3         | 128.90          | 0.00                                 | 0.00       | 97.96    | 0.00          | 0.00       | 0.00    | 0.00  | 0.00     | 0.00 | 0.00 | 0.00   | 0.00   | 0.00 |
|              | AB- 1         | 365.14          | 100.71                               | 5.37       | 69.14    | 1.11          | 10.74      | 0.00    | 0.00  | 0.00     | 0.00 | 0.00 | 0.00   | 126.21 | 0.12 |
|              | AB- 2         | 220.35          | 58.05                                | 1.33       | 100.91   | 0.00          | 6.68       | 0.00    | 0.00  | 0.00     | 0.00 | 0.00 | 0.00   | 0.00   | 1.06 |
|              | AS- 1         | 1,134.25        | 389.89                               | 0.00       | 383.30   | 0.00          | 34.25      | 0.00    | 0.00  | 0.00     | 0.00 | 0.00 | 0.00   | 81.31  | 0.00 |
|              | Sub-total     | 2,081.34        | 567.58                               | 6.70       | 803.03   | 1.11          | 54.37      | 0.00    | 0.00  | 0.00     | 0.00 | 0.00 | 0.00   | 207.52 | 1.18 |



Table 3-1(1/2) Probable Peak Basin Runoff Discharge

(unit : m<sup>3</sup>/s)

| River Basin   | Sub-basin No. | Total Area (ha) | Percentage of Builtup Area |              | Probable Peak Discharge<br>(5 year return period) |           |
|---------------|---------------|-----------------|----------------------------|--------------|---|-----------|
|               |               |                 | Present                    | Year 2020    | Present   | Year 2020 |
| Air Mendidieh | AM- 1         | 6.96            | 100.0%                     | 100.0%       | 2.9   | 2.9       |
|               | AM- 2         | 5.36            | 100.0%                     | 100.0%       | 1.8   | 1.8       |
|               | AM- 3         | 24.53           | 91.2%                      | 95.1%        | 8.8   | 9.1       |
|               | AM- 4         | 8.87            | 100.0%                     | 100.0%       | 3.3   | 3.3       |
|               | AM- 5         | 25.42           | 67.2%                      | 100.0%       | 6.6   | 8.5       |
|               | AM- 6         | 13.69           | 67.9%                      | 100.0%       | 3.7   | 4.8       |
|               | AM- 7         | 54.47           | 5.6%                       | 100.0%       | 5.5   | 20.0      |
|               | AM- 8         | 17.69           | 31.1%                      | 100.0%       | 3.3   | 6.4       |
|               | AM- 9         | 1.59            | 35.8%                      | 100.0%       | 0.4   | 0.7       |
|               | AM- 10        | 9.58            | 53.8%                      | 100.0%       | 2.4   | 3.9       |
|               | AM- 11        | 11.36           | 96.9%                      | 100.0%       | 4.0   | 4.1       |
|               | AM- 12        | 14.35           | 40.4%                      | 100.0%       | 2.8   | 5.2       |
|               | AM- 13        | 15.96           | 87.5%                      | 100.0%       | 5.0   | 5.3       |
|               | AM- 14        | 30.46           | 93.8%                      | 100.0%       | 11.0  | 11.5      |
|               | AM- 15        | 12.43           | 100.0%                     | 100.0%       | 4.6   | 4.6       |
|               | AM- 16        | 19.73           | 92.6%                      | 100.0%       | 7.2   | 7.6       |
|               | AM- 17        | 50.32           | 69.5%                      | 100.0%       | 13.7  | 17.6      |
|               | AM- 18        | 10.93           | 67.0%                      | 100.0%       | 3.1   | 4.3       |
|               | AM- 19        | 25.35           | 77.4%                      | 100.0%       | 7.8   | 10.1      |
|               | AM- 20        | 3.38            | 73.7%                      | 100.0%       | 1.1   | 1.5       |
|               |               | <b>Total</b>    | <b>362.43</b>              | <b>65.8%</b> | <b>99.7%</b>                                      |           |
| Line G        | LG- 1         | 37.06           | 0.9%                       | 100.0%       | 3.4   | 10.7      |
|               | LG- 2         | 32.65           | 2.3%                       | 100.0%       | 3.1   | 11.8      |
|               | LG- 3         | 6.18            | 0.0%                       | 98.0%        | 0.6   | 2.4       |
|               | LG- 4         | 69.59           | 83.0%                      | 94.1%        | 19.5  | 21.3      |
|               | LG- 5         | 4.86            | 16.9%                      | 96.3%        | 0.8   | 1.9       |
|               | LG- 6         | 17.70           | 72.0%                      | 100.0%       | 4.6   | 5.7       |
|               | LG- 7         | 11.52           | 37.0%                      | 100.0%       | 2.3   | 3.9       |
|               | LG- 8         | 4.61            | 8.1%                       | 100.0%       | 0.6   | 1.8       |
|               | LG- 9         | 28.04           | 73.1%                      | 98.0%        | 7.5   | 9.1       |
|               | LG- 10        | 20.49           | 12.7%                      | 100.0%       | 2.7   | 7.2       |
|               | LG- 11        | 15.72           | 15.5%                      | 100.0%       | 2.2   | 5.7       |
|               | LG- 12        | 7.05            | 34.2%                      | 100.0%       | 1.4   | 2.6       |
|               | LG- 13        | 12.53           | 27.9%                      | 100.0%       | 2.3   | 4.6       |
|               | LG- 14        | 4.79            | 71.8%                      | 100.0%       | 1.5   | 1.9       |
|               |               | <b>Total</b>    | <b>272.78</b>              | <b>41.0%</b> | <b>98.2%</b>                                      |           |

Table 3-1(2/2) Probable Peak Basin Runoff Discharge

(unit : m<sup>3</sup>/s)

| River Basin  | Sub-basin No. | Total Area (ha) | Percentage of Buitup Area |              | Probable Peak Discharge<br>(5 year return period) |           |
|--------------|---------------|-----------------|---------------------------|--------------|---|-----------|
|              |               |                 | Present                   | Year 2020    | Present   | Year 2020 |
| Pokok Mangga | L- 1          | 88.17           | 36.1%                     | 100.0%       | 7.2   | 14.6      |
|              | L- 2          | 28.30           | 16.7%                     | 100.0%       | 1.7   | 5.4       |
|              | L- 3          | 50.42           | 45.5%                     | 100.0%       | 4.9   | 8.9       |
|              | L- 4          | 78.43           | 46.4%                     | 98.8%        | 7.2   | 12.7      |
|              | L- 5          | 22.63           | 66.6%                     | 100.0%       | 3.3   | 4.4       |
|              | P- 1          | 28.77           | 43.4%                     | 98.4%        | 3.6   | 6.1       |
|              | P- 2          | 45.14           | 55.2%                     | 98.0%        | 5.4   | 7.7       |
|              | P- 3          | 15.43           | 87.5%                     | 100.0%       | 2.8   | 3.0       |
|              | P- 4          | 34.78           | 36.1%                     | 100.0%       | 3.1   | 6.4       |
|              | P- 5          | 15.47           | 91.3%                     | 100.0%       | 3.0   | 3.1       |
|              | P- 6          | 29.08           | 62.4%                     | 100.0%       | 3.9   | 5.5       |
|              | P- 7          | 34.28           | 78.0%                     | 100.0%       | 5.4   | 6.4       |
|              |               |                 | <b>470.90</b>             | <b>49.6%</b> | <b>99.5%</b>                                      |           |
| Ayer Salak   | A1- 1         | 128.95          | 0.0%                      | 100.0%       | 5.9   | 25.5      |
|              | A1- 2         | 133.04          | 2.4%                      | 45.6%        | 6.5   | 15.9      |
|              | A1- 3         | 91.13           | 41.8%                     | 93.0%        | 10.2  | 18.9      |
|              | A1- 4         | 12.14           | 57.8%                     | 58.8%        | 2.0   | 2.1       |
|              | A2- 1         | 15.27           | 0.0%                      | 100.0%       | 0.8   | 3.5       |
|              | A2- 2         | 82.86           | 88.6%                     | 100.0%       | 15.7  | 17.1      |
|              | A2- 3         | 66.96           | 1.0%                      | 98.4%        | 3.4   | 14.6      |
|              | A2- 4         | 56.02           | 33.8%                     | 100.0%       | 6.1   | 12.9      |
|              | AS- 1         | 179.27          | 0.0%                      | 93.4%        | 7.8   | 34.3      |
|              | AS- 2         | 134.63          | 1.5%                      | 100.0%       | 5.7   | 26.8      |
|              | AS- 3         | 28.38           | 0.7%                      | 100.0%       | 1.6   | 6.2       |
|              | AS- 4         | 46.95           | 18.2%                     | 100.0%       | 3.9   | 10.3      |
|              | AS- 5         | 61.67           | 50.4%                     | 100.0%       | 8.2   | 13.0      |
|              | AS- 6         | 34.93           | 21.6%                     | 100.0%       | 3.2   | 7.6       |
|              | AS- 7         | 137.55          | 32.4%                     | 81.9%        | 13.2  | 24.1      |
|              | AS- 8         | 177.77          | 44.8%                     | 100.0%       | 19.4  | 34.9      |
|              | AS- 9         | 147.51          | 40.2%                     | 100.0%       | 15.9  | 30.5      |
|              | AS- 10        | 108.35          | 66.2%                     | 100.0%       | 16.7  | 22.9      |
|              | AS- 11        | 61.77           | 17.8%                     | 52.5%        | 5.0   | 8.6       |
|              | AS- 12        | 15.83           | 0.1%                      | 2.7%         | 1.0   | 1.0       |
|              | <b>Total</b>  | <b>1,720.98</b> | <b>26.5%</b>              | <b>90.3%</b> |   |           |

Table 3-2 Probable Extent of Flood Inundation Area

(unit : ha)

| Drainage Area    | Existing Land Use  |                      | Proposed Land Use (Year 2020) |                      |
|------------------|--------------------|----------------------|-------------------------------|----------------------|
|                  | 5 yr return Period | 100 yr return period | 5 yr return Period            | 100 yr return period |
| Sg.Air Mendidih  | 39.65              | 52.64                | 47.17                         | 61.71                |
| Line G           | 13.67              | 24.64                | 22.69                         | 39.49                |
| Prt.Pokok Mangga | 268.40             | 406.46               | 319.92                        | 473.81               |
| Sg.Ayer Salak    | 340.07             | 395.61               | 426.50                        | 469.38               |

Table 3-3 Standard Design Discharge

(unit : m<sup>3</sup>/s)

| Drainage Area    | Channel          | CH No. | Calculation Point | 5 year return period |           |
|------------------|------------------|--------|-------------------|----------------------|-----------|
|                  |                  |        |                   | Present              | Year 2020 |
| Sg. Air Mendidih | Sg. Air Mendidih | 0.0    | 12                | 77.0                 | 112.0     |
|                  |                  | 200.0  | 11                | 69.0                 | 102.0     |
|                  |                  | 704.5  | 10                | 68.0                 | 97.0      |
|                  |                  | 934.4  | 9                 | 59.0                 | 85.0      |
|                  |                  | 1150.0 | 8                 | 59.0                 | 85.0      |
|                  |                  | 1400.0 | 7                 | 31.0                 | 47.0      |
|                  |                  | 1700.0 | 6                 | 29.0                 | 43.0      |
|                  |                  | 2200.0 | 5                 | 26.0                 | 28.0      |
|                  |                  | 2500.0 | 4                 | 20.0                 | 19.0      |
|                  |                  | 2800.0 | 3                 | 15.0                 | 15.0      |
|                  |                  | 3000.0 | 2                 | 3.0                  | 3.0       |
|                  |                  | 3200.0 | 1                 | 0.0                  | 0.0       |
|                  |                  | Line P | 0.0               | 18                   | 23.0      |
|                  | 402.3            |        | 17                | 20.0                 | 34.0      |
|                  | 902.5            |        | 16                | 11.0                 | 28.0      |
|                  | 1071.5           |        | 15                | 6.0                  | 25.0      |
|                  | 1291.5           |        | 14                | 4.0                  | 20.0      |
|                  | Line O           | 0.0    | 20                | 12.0                 | 16.0      |
|                  |                  | 600.0  | 19                | 4.0                  | 5.0       |
| Line G           | Line G           | 0.0    | 10                | 80.0                 | 99.0      |
|                  |                  | 200.0  | 9                 | 65.0                 | 91.0      |
|                  |                  | 500.0  | 8                 | 60.0                 | 92.0      |
|                  |                  | 900.0  | 7                 | 51.0                 | 74.0      |
|                  |                  | 1480.0 | 6                 | 34.0                 | 57.0      |
|                  |                  | 1680.0 | 5                 | 30.0                 | 54.0      |
|                  |                  | 1789.0 | 4                 | 25.0                 | 45.0      |
|                  |                  | 1889.0 | 3                 | 12.0                 | 27.0      |
|                  |                  | 2189.0 | 2                 | 9.0                  | 21.0      |
|                  |                  | 2789.0 | 1                 | 4.0                  | 11.0      |
| Pokok Mangga     | Pokok Mangga     | 0.0    | 4                 | 37.0                 | 52.0      |
|                  |                  | 800.0  | 3                 | 28.0                 | 40.0      |
|                  |                  | 1200.0 | 2                 | 23.0                 | 33.0      |
|                  |                  | 2200.0 | 1                 | 9.0                  | 11.0      |
|                  | M2               | 0.0    | 6                 | 5.0                  | 6.0       |
|                  |                  | 200.0  | 5                 | 3.0                  | 3.0       |
|                  | M1               | 0.0    | 8                 | 8.0                  | 14.0      |
|                  |                  | 200.0  | 7                 | 7.0                  | 13.0      |
|                  | Besar Limbongan  | 0.0    | 11                | 15.0                 | 30.0      |
|                  |                  | 1000.0 | 10                | 7.0                  | 13.0      |
|                  |                  | 1800.0 | 9                 | 5.0                  | 9.0       |
| Ayer Salak       | Ayer Salak       | 1400.0 | 7                 | 82.0                 | 213.0     |
|                  |                  | 2200.0 | 6                 | 68.0                 | 170.0     |
|                  |                  | 3400.0 | 5                 | 57.0                 | 170.0     |
|                  |                  | 4800.0 | 4                 | 51.0                 | 163.0     |
|                  |                  | 5693.0 | 3                 | 28.0                 | 110.0     |
|                  |                  | 6293.0 | 2                 | 19.0                 | 88.0      |
|                  |                  | 7293.0 | 1                 | 8.0                  | 44.0      |
|                  |                  | AB1    | 0.0               | 11                   | 34.0      |
|                  | 400.0            |        | 10                | 19.0                 | 38.0      |
|                  | 2200.0           |        | 9                 | 11.0                 | 22.0      |
|                  | AB2              | 0.0    | 14                | 17.0                 | 31.0      |
|                  |                  | 1822.0 | 13                | 16.0                 | 26.0      |
|                  |                  | 2847.0 | 12                | 16.0                 | 18.0      |

Table 4 – 1 Alternative Drainage Improvement Plans and Selected Optimum Plan

| Drainage Area     | Alt. No. | Improvement Measures Involved |                                 |                                   |   |  |  |   |                               | Number of Houses to be Relocated | Project Cost (RM million) | Selected Optimum Plan |
|-------------------|----------|-------------------------------|---------------------------------|-----------------------------------|---|--|--|---|-------------------------------|----------------------------------|---------------------------|-----------------------|
|                   |          | Channel Improvement           | Construction of New Trunk Drain | Construction of Diversion Channel | Rehabilitation of Existing Flood Detention Pond | Construction of New Flood Detention Pond | Construction of On-site Detention Pond | Installation of Storage Tank in a House Lot | Construction of Drainage Pump |                                  |                           |                       |
| Sg. Air Mendidih  | Alt.1    | √                             |                                 |                                   |   |  |  |   |                               | 37                               | 9.1                       |                       |
|                   | Alt. 2   | √                             |                                 |                                   |   | √  |  |   |                               | 33                               | 9.0                       |                       |
|                   | Alt. 3   | √                             |                                 |                                   |   | √  | √                                      |   |                               | 30                               | 8.8                       | ○                     |
|                   | Alt. 4   | √                             |                                 |                                   |   | √  | √                                      | √   |                               | 22                               | 30.1                      |                       |
| Line-G            | Alt.1    | √                             |                                 |                                   |   |  |  |   |                               | 2                                | 6.2                       |                       |
|                   | Alt. 2   | √                             |                                 |                                   | √   |  |  |   |                               | 2                                | 5.8                       |                       |
|                   | Alt. 3   | √                             |                                 |                                   | √   | √  |  |   |                               | 1                                | 5.3                       |                       |
|                   | Alt. 4   | √                             |                                 | √                                 | √   | √  |  |   |                               | 0                                | 5.2                       | ○                     |
| Prt. Pokok Mangga | Alt.1    | √                             |                                 |                                   |   |  |  |   |                               | 48                               | 18.2                      |                       |
|                   | Alt. 2   | √                             |                                 |                                   |   |  | √                                      |   |                               | 36                               | 18.0                      |                       |
|                   | Alt. 3   | √                             |                                 |                                   |   |  |  | √   |                               | 36                               | 64.5                      |                       |
|                   | Alt. 4   | √                             | √                               |                                   |   |  |  |   |                               | 29                               | 14.6                      | ○                     |
|                   | Alt. 5   | √                             | √                               |                                   |   |  | √                                      |   |                               | 28                               | 14.9                      |                       |
|                   | Alt. 6   | √                             | √                               |                                   |   |  |  | √   |                               | 28                               | 61.4                      |                       |
|                   | Alt. 7   | √                             |                                 | √                                 |   |  |  |   | √                             | 30                               | 44.6                      |                       |
| Sg. Ayer Salak    | Alt.1    | √                             |                                 |                                   |   |  |  |   |                               | 63                               | 37.2                      |                       |
|                   | Alt. 2   | √                             |                                 |                                   | √   |  |  |   |                               | 60                               | 36.2                      |                       |
|                   | Alt. 3   | √                             |                                 |                                   | √   | √  |  |   |                               | 38                               | 29.3                      | ○                     |

Note : Each of alternative plans involves the improvement measures marked by “√”.

Table 4-2(1/2) Annual Disbursement Schedule for Priority Project

Sg.Petani (Sg. Air Mendidih)

Unit : 1000 RM

| Year                        | Total |       | 2001 |      | 2002  |      | 2003  |      | 2004  |      | 2005  |      | 2006~ |
|-----------------------------|-------|-------|------|------|-------|------|-------|------|-------|------|-------|------|-------|
|                             | L.C.  | F.C.  | L.C. | F.C. | L.C.  | F.C. | L.C.  | F.C. | L.C.  | F.C. | L.C.  | F.C. |       |
| 1 Construction Cost         |       |       |      |      |       |      |       |      |       |      |       |      |       |
| Drainage channel            | 1,949 | 571   | 0    | 0    | 0     | 0    | 650   | 190  | 650   | 190  | 650   | 190  |       |
| Detention facilities        | 819   | 273   | 0    | 0    | 0     | 0    | 273   | 91   | 273   | 91   | 273   | 91   |       |
| 2 Land Acquisition Cost     |       |       |      |      |       |      |       |      |       |      |       |      |       |
| Land acquisition (ch.)      | 4,175 | 0     | 0    | 0    | 1,392 | 0    | 1,392 | 0    | 1,392 | 0    | 0     | 0    |       |
| Land acquisition (dp.)      | 272   | 0     | 0    | 0    | 136   | 0    | 136   | 0    | 0     | 0    | 0     | 0    |       |
| 3 Administration Cost       | 179   | 0     | 36   | 0    | 36    | 0    | 36    | 0    | 36    | 0    | 36    | 0    |       |
| 4 Engineering Services Cost | 375   | 169   | 187  | 84   | 47    | 21   | 47    | 21   | 47    | 21   | 47    | 21   |       |
| Sub-Total (1. To 4.)        | 7,768 | 1,013 | 223  | 84   | 1,610 | 21   | 2,533 | 303  | 2,397 | 303  | 1,005 | 303  |       |
| 5 Physical Contingency      | 777   | 101   | 22   | 8    | 161   | 2    | 253   | 30   | 240   | 30   | 101   | 30   |       |
| Sub-Total (1. To 5.)        | 8,545 | 1,114 | 245  | 93   | 1,771 | 23   | 2,786 | 333  | 2,636 | 333  | 1,106 | 333  |       |
| 6 Price Contingency         | 1,347 | 51    | 11   | 1    | 163   | 1    | 393   | 12   | 508   | 16   | 272   | 20   |       |
| Total (1. To 6.)            | 9,892 | 1,165 | 257  | 94   | 1,934 | 24   | 3,179 | 345  | 3,144 | 349  | 1,378 | 353  |       |
| Annual O&M Cost (ch.)       |       |       | -    | -    | -     | -    | -     | -    | 12    | -    | 24    | -    | 35    |
| Annual O&M Cost (dp.)       |       |       | -    | -    | -     | -    | -     | -    | -     | -    | -     | -    | 112   |

Sg.Petani (Line G)

Unit : 1000 RM

| Year                        | Total |       | 2,001 |      | 2,002 |      | 2,003 |      | 2,004 |      | 2,005 |      | 2006~ |
|-----------------------------|-------|-------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|
|                             | L.C.  | F.C.  | L.C.  | F.C. | L.C.  | F.C. | L.C.  | F.C. | L.C.  | F.C. | L.C.  | F.C. |       |
| 1 Construction Cost         |       |       |       |      |       |      |       |      |       |      |       |      |       |
| Drainage channel            | 1,584 | 444   | 0     | 0    | 0     | 0    | 528   | 148  | 528   | 148  | 528   | 148  |       |
| Detention facilities        | 945   | 296   | 0     | 0    | 0     | 0    | 315   | 99   | 315   | 99   | 315   | 99   |       |
| 2 Land Acquisition Cost     |       |       |       |      |       |      |       |      |       |      |       |      |       |
| Land acquisition (ch.)      | 786   | 0     | 0     | 0    | 262   | 0    | 262   | 0    | 262   | 0    | 0     | 0    |       |
| Land acquisition (dp.)      | 512   | 0     | 0     | 0    | 256   | 0    | 256   | 0    | 0     | 0    | 0     | 0    |       |
| 3 Administration Cost       | 164   | 0     | 33    | 0    | 33    | 0    | 33    | 0    | 33    | 0    | 33    | 0    |       |
| 4 Engineering Services Cost | 342   | 148   | 171   | 74   | 43    | 19   | 43    | 19   | 43    | 19   | 43    | 19   |       |
| Sub-Total (1. To 4.)        | 4,333 | 889   | 204   | 74   | 593   | 19   | 1,436 | 265  | 1,180 | 265  | 918   | 265  |       |
| 5 Physical Contingency      | 433   | 89    | 20    | 7    | 59    | 2    | 144   | 27   | 118   | 27   | 92    | 27   |       |
| Sub-Total (1. To 5.)        | 4,766 | 978   | 224   | 81   | 653   | 20   | 1,580 | 292  | 1,298 | 292  | 1,010 | 292  |       |
| 6 Price Contingency         | 792   | 44    | 10    | 1    | 60    | 0    | 223   | 11   | 250   | 14   | 249   | 18   |       |
| Total (1. To 6.)            | 5,558 | 1,022 | 234   | 82   | 713   | 21   | 1,803 | 303  | 1,548 | 306  | 1,259 | 310  |       |
| Annual O&M Cost (ch.)       |       |       | -     | -    | -     | -    | -     | -    | 2     | -    | 5     | -    | 7     |
| Annual O&M Cost (dp.)       |       |       | -     | -    | -     | -    | -     | -    | -     | -    | -     | -    | 98    |

Note : Physical Contingency (10% of 1. To 4.)

Price Contingency (4.5% for LC &amp; 1.2 % for FC)

ch. = drainage channel

dp. = detention facilities

Table 4-2 (2/2) Annual Disbursement Schedule for Priority Projects

Melaka (Pokok Mangga) Unit : 1000 RM

| Year                               | Total  |       | 2,001 |      | 2,002 |      | 2,003 |      | 2,004 |      | 2,005 |      | 2006~ |
|------------------------------------|--------|-------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|
|                                    | L.C.   | F.C.  | L.C.  | F.C. | L.C.  | F.C. | L.C.  | F.C. | L.C.  | F.C. | L.C.  | F.C. |       |
| <b>1 Construction Cost</b>         |        |       |       |      |       |      |       |      |       |      |       |      |       |
| Drainage channel                   | 7,205  | 2,021 | 0     | 0    | 0     | 0    | 2,402 | 674  | 2,402 | 674  | 2,402 | 674  |       |
| <b>2 Land Acquisition Cost</b>     |        |       |       |      |       |      |       |      |       |      |       |      |       |
| Land acquisition (ch.)             | 3,573  | 0     | 0     | 0    | 1,191 | 0    | 1,191 | 0    | 1,191 | 0    | 0     | 0    |       |
| <b>3 Administration Cost</b>       | 461    | 0     | 92    | 0    | 92    | 0    | 92    | 0    | 92    | 0    | 92    | 0    |       |
| <b>4 Engineering Services Cost</b> | 980    | 404   | 490   | 202  | 122   | 51   | 122   | 51   | 122   | 51   | 122   | 51   |       |
| Sub-Total (1. To 4.)               | 12,219 | 2,425 | 582   | 202  | 1,406 | 51   | 3,807 | 724  | 3,807 | 724  | 2,616 | 724  |       |
| <b>5 Physical Contingency</b>      | 1,222  | 243   | 58    | 20   | 141   | 5    | 381   | 72   | 381   | 72   | 262   | 72   |       |
| Sub-Total (1. To 5.)               | 13,441 | 2,668 | 640   | 222  | 1,546 | 56   | 4,188 | 797  | 4,188 | 797  | 2,878 | 797  |       |
| <b>6 Price Contingency</b>         | 2,277  | 121   | 29    | 3    | 142   | 1    | 591   | 29   | 806   | 39   | 709   | 49   |       |
| Total (1. To 6.)                   | 15,718 | 2,788 | 669   | 225  | 1,689 | 57   | 4,779 | 826  | 4,994 | 835  | 3,586 | 846  |       |
| Annual O&M Cost (ch.)              |        |       | -     |      | -     |      | -     |      | 18    |      | 36    |      | 54    |

Melaka (Ayer Salak) Unit : 1000 RM

| Year                               | Total  |       | 2,001 |      | 2,002  |      | 2,003  |      | 2,004  |      | 2,005 |      | 2006~ |
|------------------------------------|--------|-------|-------|------|--------|------|--------|------|--------|------|-------|------|-------|
|                                    | L.C.   | F.C.  | L.C.  | F.C. | L.C.   | F.C. | L.C.   | F.C. | L.C.   | F.C. | L.C.  | F.C. |       |
| <b>1 Construction Cost</b>         |        |       |       |      |        |      |        |      |        |      |       |      |       |
| Drainage channel                   | 1,880  | 695   | 0     | 0    | 0      | 0    | 627    | 232  | 627    | 232  | 627   | 232  |       |
| Detention facilities               | 954    | 468   | 0     | 0    | 0      | 0    | 318    | 156  | 318    | 156  | 318   | 156  |       |
| <b>2 Land Acquisition Cost</b>     |        |       |       |      |        |      |        |      |        |      |       |      |       |
| Land acquisition (ch.)             | 22,683 | 0     | 0     | 0    | 7,561  | 0    | 7,561  | 0    | 7,561  | 0    | 0     | 0    |       |
| Land acquisition (dp.)             | 1,809  | 0     | 0     | 0    | 905    | 0    | 905    | 0    | 0      | 0    | 0     | 0    |       |
| <b>3 Administration Cost</b>       | 200    | 0     | 40    | 0    | 40     | 0    | 40     | 0    | 40     | 0    | 40    | 0    |       |
| <b>4 Engineering Services Cost</b> | 367    | 222   | 183   | 111  | 46     | 28   | 46     | 28   | 46     | 28   | 46    | 28   |       |
| Sub-Total (1. To 4.)               | 27,892 | 1,385 | 223   | 111  | 8,551  | 28   | 9,496  | 415  | 8,591  | 415  | 1,030 | 415  |       |
| <b>5 Physical Contingency</b>      | 2,789  | 139   | 22    | 11   | 855    | 3    | 950    | 42   | 859    | 42   | 103   | 42   |       |
| Sub-Total (1. To 5.)               | 30,681 | 1,524 | 246   | 122  | 9,407  | 31   | 10,445 | 457  | 9,450  | 457  | 1,133 | 457  |       |
| <b>6 Price Contingency</b>         | 4,450  | 69    | 11    | 1    | 866    | 1    | 1,475  | 17   | 1,819  | 22   | 279   | 28   |       |
| Total (1. To 6.)                   | 35,131 | 1,593 | 257   | 124  | 10,272 | 31   | 11,920 | 474  | 11,270 | 479  | 1,412 | 485  |       |
| Annual O&M Cost (ch.)              |        |       | -     |      | -      |      | -      |      | 67     |      | 135   |      | 202   |
| Annual O&M Cost (dp.)              |        |       | -     |      | -      |      | -      |      | -      |      | -     |      | 331   |

Note : Physical Contingency (10% of 1. To 4.)  
 Price Contingency (4.5% for LC & 1.2 % for FC)  
 ch. = drainage channel  
 dp. = detention facilities