## 4.2 Vulnerability of assets to salinity

To highlight the key assets at risk of being affected by salinity, a vulnerability assessment was undertaken to assess the susceptibility of each asset to a hypothetical exposure to salinity. In this case, the vulnerability of each asset is defined by a combination of:

- the likelihood of the asset being degraded if exposed to a hypothetical salinity risk; and
- the consequence of the asset being degraded by salinity.

A vulnerability score was assigned to each of the assets according to the matrix shown in Table 2.

- **Table 2: Likelihood versus consequence matrix to determine vulnerability of assets to salinity**

| Vulnerability Index | | Likelihood (of degradation to hypothetical salinity condition) | | |
|---|---|---|---|---|
| | | Low | Moderate | High |
| Consequence (if impacted by salinity) | Low | 1 | 2 | 4 |
| | Moderate | 3 | 5 | 7 |
| | Severe | 6 | 8 | 9 |

Assets that received a score of 7, 8 or 9 were determined to be the most vulnerable assets. The averaged vulnerability score combined with facilitated discussion lead to the original asset list being reduced to a smaller number of priority assets that were considered to be vulnerable to salinity, as shown in Table 3.

- **Table 3: Assets considered most vulnerable to salinity**

| Asset class (from Regional Catchment Strategy) | Asset |
|---|---|
| Production | Agriculture (both dryland and irrigated) |
| Production | Forestry |
| People and Communities | Communities |
| Biodiversity | Native Vegetation |
| Biodiversity | Reserves (parkland) |
| Infrastructure | Urban and rural infrastructure |
| Water | Groundwater |
| Water | Surface water (including lakes and rivers) |
| Water/Biodiversity | Gippsland Lakes |
| Water/Biodiversity | Wetlands |

The next step was to determine where these vulnerable assets are exposed to salinity, which is described in Section 4.3.