Note H(iv): Catchment Assessment Checklist (CAC) for marine recreational waters

The purpose of the checklist is to identify potential catchment risk factors for use in establishing the Sanitary Inspection Category (SIC).

Site/area name: ____________________________________________________________

Type of site:  Open coastal beach  ______  Estuarine _______  Enclosed bay ______  Other ______

Location: ________________________________________________________________

Map references:  Latitude __________________________  Longitude __________________________  

Name of local authority (specify authority responsible) ______________________________________________

Name of person completing checklist (for compiling report): ____________________________________________

Check and tick all that apply and note findings for subsequent report.

Part A: Land use

Type of land or human activity surrounding the recreational site.

Land cover/geography

Forest/bush  Pasture  Urban
Swamp/mangroves  River/stream/irrigation  Sand dunes
Hilly  Flat

Urban

Residential (population density)  Commercial  Industry (specify)
Hotel  Harbour  Airport
Road/rail  Military/prison  Other potentially polluting activity (please specify)

Sanitary landfills/old dumps

Disposal of human wastes (degree and type of treatment applied - (please specify)

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
Part B: Rural land use

Indicate the presence of the following for agricultural land use.

- Sheep
- Dairy/beef
- Horses
- Pigs
- Deer
- Poultry
- Feral

Is there disposal of animal wastes? (please specify)

Part C: Water uses

Indicate the presence of the following for the marine area.

- Marina
- Fish boat berths
- Permanent boat moorings
- Harbour
- Temporary boat moorings
- Ferry berth

Additional influencing factors

Size of bathing area:

- Area: ______ m²
- Length: ______ m
- Mean width: ______ m

Is there a beach? __________

- Average area: ______ m²
- Length: ______ m
- Width at low tide: ______ m
- Width at high tide: ______ m

Are there lagoons used for bathing? __________

Is the beach subject to above average seasonal/holiday loading? __________

Direction of prevailing onshore winds: __________

Direction of prevailing water currents: __________

Shoreline configuration/geomorphology/erosion gullies: __________

Presence of sandbars: __________

Presence of surf: average wave heights: __________

Total rainfall

- Total annual: ______ mm
- Seasonal patterns: __________
### Part D: Microbiological hazards

**Sewage and animal waste**

Is the water quality in the recreational area *affected, or likely to be affected* by:

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Is it present?</th>
<th>Is it likely to cause an effect?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>discharge of untreated human effluent onto or adjacent to a recreational area</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>2</td>
<td>stormwater outlets with potential sewage contamination / combined stormwater outlet onto or adjacent to a recreational area</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>3</td>
<td>urban stormwater that is protected from sewage ingress</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>4</td>
<td>on-site or other private sewage disposal systems (e.g. septic tank or package plant)</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>5</td>
<td>communal sewage disposal or primary or secondary treatment facilities</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>6</td>
<td>communal sewage disposal with tertiary treatment facilities</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>7</td>
<td>intensive agricultural use in immediate catchment and potential for run-off from untreated animal effluent (e.g. dairying, piggeries, milking sheds)</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>8</td>
<td>the incidence and density of bird life (particularly where lagoons or estuarine conditions exist)</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>9</td>
<td>water craft mooring or use (for boats, proximity, densities and pump-outs)</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Is there a river or stream (including a piped stream) discharging into the recreational area?  
If ‘Yes’ complete Questions 10–15 to determine an effect.
**River/stream discharge influences**

Is the water quality of any river or stream discharging into the recreational area affected or likely to be affected by:

<table>
<thead>
<tr>
<th></th>
<th>Is it present?</th>
<th>Is it likely to cause an effect?</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>discharge of untreated human effluent, primary or secondary wastewater treatment plant discharge, on-site or other private sewage disposal systems (e.g. septic tank)</td>
<td>☐</td>
</tr>
<tr>
<td>11</td>
<td>stormwater outlets with potential sewage contamination/combined stormwater outlet</td>
<td>☐</td>
</tr>
<tr>
<td>12</td>
<td>communal sewage disposal with tertiary treatment facilities</td>
<td>☐</td>
</tr>
<tr>
<td>13</td>
<td>high-intensity agricultural/rural activities, incidence and density of feral animal/bird population</td>
<td>☐</td>
</tr>
<tr>
<td>14</td>
<td>focal points of drainage, as run-off from low-intensity agriculture/urban/rural catchment</td>
<td>☐</td>
</tr>
<tr>
<td>15</td>
<td>potential for run-off from feral animals (e.g. forest or bush).</td>
<td>☐</td>
</tr>
</tbody>
</table>

**Other influences**

<table>
<thead>
<tr>
<th></th>
<th>Is it present?</th>
<th>Is it likely to cause an effect?</th>
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</thead>
<tbody>
<tr>
<td>16</td>
<td>tidal movements or onshore winds that are likely to carry water polluted by untreated / primary / secondary treated effluent or onsite waste treatment systems into the recreational area</td>
<td>☐</td>
</tr>
<tr>
<td>17</td>
<td>tidal movements or onshore winds that are likely to carry water polluted by tertiary treated wastewater into the recreational area.</td>
<td>☐</td>
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</tbody>
</table>

**Further considerations**

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does rainfall trigger contamination events?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Does microbiological water quality data exceed the national guidelines (280 single-sample exceedance) on any occasion?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Is there additional information implying risk (such as notified illness related to recreational water activities)?</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

*Note: If the box is ticked indicating the presence of any of the above microbiological hazards, the answer as to whether it is causing an effect may be obvious (e.g. discharge of human or animal effluent onto or adjacent to a recreational area). If it is unclear whether it is causing an effect, a more detailed investigation may be required to establish relative importance and magnitude of the effect.*