**Appendix A**

**Table S1. Scoring Matrix by Stakeholders for Habitat Risk Assessment under Three Management Scenarios (BAU, CP, and PPPI) in San Fernando City, La Union**

**Scoring criteria for Business-As-Usual (BAU)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **HABITAT NAME** | **Catbangen** | | | **Carlatan** | | | **CRITERIA TYPE** | |
| HABITAT RESILIENCE ATTRIBUTES | RATING | DQ | WEIGHT | RATING | DQ | WEIGHT | E/C | Rating Instruction |
| recruitment rate | 1 | 2 | 2 | 1 | 2 | 2 | C | <enter (3) every 2+ yrs, (2) every 1-2 yrs, (1) every <1 yrs, or (0) no score> |
| natural mortality rate | 3 | 1 | 1 | 3 | 1 | 1 | C | <enter (3) 0-20%, (2) 20-50%, (1) >80% mortality, or (0) no score> |
| connectivity rate | 2 | 3 | 2 | 2 | 3 | 2 | C | <enter (3) <10km, (2) 10-100km, (1) >100km, or (0) no score> |
| recovery time | 2 | 2 | 2 | 2 | 2 | 2 | C | <enter (3) >10 yrs, (2) 1-10 yrs, (1) <1 yr, or (0) no score> |
|  |  |  |  |  |  |  |  |  |
| **HABITAT STRESSOR OVERLAP PROPERTIES** | | | |  |  |  |  |  |
| aquaculture | RATING | DQ | WEIGHT | RATING | DQ | WEIGHT | E/C | Rating Instruction |
| frequency of disturbance | 2 | 1 | 1 | 1 | 1 | 1 | C | <enter (3) Annually or less often, (2) Several times per year, (1) Weekly or more often, (0) no score> |
| change in area rating | 2 | 1 | 1 | 2 | 1 | 1 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| change in structure rating | 2 | 1 | 2 | 2 | 1 | 2 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| temporal overlap rating | 3 | 2 | 2 | 3 | 2 | 2 | E | <enter (3) co-occur 8-12 mo/year, (2) 4-8 mo/yr, (1) 0-4 mo/yr, (0) no score> |
| management effectiveness | 3 | 1 | 1 | 3 | 1 | 1 | E | <enter (3) not effective, (2) somewhat effective, (1) very effective, (0) no score> |
| intensity rating | 3 | 1 | 1 | 3 | 1 | 1 | E | <enter (3) high, (2) medium, (1) low, (0) no score> |
|  |  |  |  |  |  |  |  |  |
| boat | RATING | DQ | WEIGHT | RATING | DQ | WEIGHT | E/C | Rating Instruction |
| frequency of disturbance | 1 | 1 | 1 | 1 | 1 | 1 | C | <enter (3) Annually or less often, (2) Several times per year, (1) Weekly or more often, (0) no score> |
| change in area rating | 2 | 1 | 1 | 2 | 1 | 1 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| change in structure rating | 2 | 1 | 2 | 2 | 1 | 2 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| temporal overlap rating | 3 | 2 | 2 | 3 | 2 | 2 | E | <enter (3) co-occur 8-12 mo/year, (2) 4-8 mo/yr, (1) 0-4 mo/yr, (0) no score> |
| management effectiveness | 3 | 1 | 1 | 3 | 1 | 1 | E | <enter (3) not effective, (2) somewhat effective, (1) very effective, (0) no score> |
| intensity rating | 2 | 1 | 1 | 2 | 1 | 1 | E | <enter (3) high, (2) medium, (1) low, (0) no score> |
|  |  |  |  |  |  |  |  |  |
| bridges | RATING | DQ | WEIGHT | RATING | DQ | WEIGHT | E/C | Rating Instruction |
| frequency of disturbance | 3 | 1 | 1 | 3 | 1 | 1 | C | <enter (3) Annually or less often, (2) Several times per year, (1) Weekly or more often, (0) no score> |
| change in area rating | 1 | 1 | 1 | 1 | 1 | 1 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| change in structure rating | 1 | 1 | 2 | 1 | 1 | 2 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| temporal overlap rating | 3 | 2 | 2 | 3 | 2 | 2 | E | <enter (3) co-occur 8-12 mo/year, (2) 4-8 mo/yr, (1) 0-4 mo/yr, (0) no score> |
| management effectiveness | 3 | 1 | 1 | 3 | 1 | 1 | E | <enter (3) not effective, (2) somewhat effective, (1) very effective, (0) no score> |
| intensity rating | 1 | 1 | 1 | 1 | 1 | 1 | E | <enter (3) high, (2) medium, (1) low, (0) no score> |
|  |  |  |  |  |  |  |  |  |
| landbridges | RATING | DQ | WEIGHT | RATING | DQ | WEIGHT | E/C | Rating Instruction |
| frequency of disturbance | 3 | 1 | 1 | 2 | 1 | 1 | C | <enter (3) Annually or less often, (2) Several times per year, (1) Weekly or more often, (0) no score> |
| change in area rating | 1 | 1 | 1 | 2 | 1 | 1 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| change in structure rating | 2 | 1 | 2 | 3 | 1 | 2 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| temporal overlap rating | 3 | 2 | 2 | 3 | 2 | 2 | E | <enter (3) co-occur 8-12 mo/year, (2) 4-8 mo/yr, (1) 0-4 mo/yr, (0) no score> |
| management effectiveness | 3 | 1 | 1 | 3 | 1 | 1 | E | <enter (3) not effective, (2) somewhat effective, (1) very effective, (0) no score> |
| intensity rating | 2 | 1 | 1 | 3 | 1 | 1 | E | <enter (3) high, (2) medium, (1) low, (0) no score> |
|  |  |  |  |  |  |  |  |  |
| netfishing | RATING | DQ | WEIGHT | RATING | DQ | WEIGHT | E/C | Rating Instruction |
| frequency of disturbance | 2 | 1 | 1 | 2 | 1 | 1 | C | <enter (3) Annually or less often, (2) Several times per year, (1) Weekly or more often, (0) no score> |
| change in area rating | 1 | 1 | 1 | 1 | 1 | 1 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| change in structure rating | 1 | 1 | 2 | 1 | 1 | 2 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| temporal overlap rating | 3 | 2 | 2 | 3 | 2 | 2 | E | <enter (3) co-occur 8-12 mo/year, (2) 4-8 mo/yr, (1) 0-4 mo/yr, (0) no score> |
| management effectiveness | 2 | 1 | 1 | 2 | 1 | 1 | E | <enter (3) not effective, (2) somewhat effective, (1) very effective, (0) no score> |
| intensity rating | 2 | 1 | 1 | 2 | 1 | 1 | E | <enter (3) high, (2) medium, (1) low, (0) no score> |
|  |  |  |  |  |  |  |  |  |
| spearfishing | RATING | DQ | WEIGHT | RATING | DQ | WEIGHT | E/C | Rating Instruction |
| frequency of disturbance | 2 | 1 | 1 | 2 | 1 | 1 | C | <enter (3) Annually or less often, (2) Several times per year, (1) Weekly or more often, (0) no score> |
| change in area rating | 1 | 1 | 1 | 1 | 1 | 1 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| change in structure rating | 1 | 1 | 2 | 1 | 1 | 2 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| temporal overlap rating | 3 | 2 | 2 | 3 | 2 | 2 | E | <enter (3) co-occur 8-12 mo/year, (2) 4-8 mo/yr, (1) 0-4 mo/yr, (0) no score> |
| management effectiveness | 2 | 1 | 1 | 2 | 1 | 1 | E | <enter (3) not effective, (2) somewhat effective, (1) very effective, (0) no score> |
| intensity rating | 1 | 1 | 1 | 1 | 1 | 1 | E | <enter (3) high, (2) medium, (1) low, (0) no score> |
|  |  |  |  |  |  |  |  |  |
| mangrove\_walk | RATING | DQ | WEIGHT | RATING | DQ | WEIGHT | E/C | Rating Instruction |
| frequency of disturbance | 2 | 1 | 1 | 3 | 1 | 1 | C | <enter (3) Annually or less often, (2) Several times per year, (1) Weekly or more often, (0) no score> |
| change in area rating | 3 | 1 | 1 | 2 | 1 | 1 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| change in structure rating | 3 | 1 | 2 | 2 | 1 | 2 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| temporal overlap rating | 2 | 2 | 2 | 2 | 2 | 2 | E | <enter (3) co-occur 8-12 mo/year, (2) 4-8 mo/yr, (1) 0-4 mo/yr, (0) no score> |
| management effectiveness | 3 | 1 | 1 | 3 | 1 | 1 | E | <enter (3) not effective, (2) somewhat effective, (1) very effective, (0) no score> |
| intensity rating | 3 | 1 | 1 | 1 | 1 | 1 | E | <enter (3) high, (2) medium, (1) low, (0) no score> |
|  |  |  |  |  |  |  |  |  |
| megainfrastructure | RATING | DQ | WEIGHT | RATING | DQ | WEIGHT | E/C | Rating Instruction |
| frequency of disturbance | 2 | 1 | 1 | 2 | 1 | 1 | C | <enter (3) Annually or less often, (2) Several times per year, (1) Weekly or more often, (0) no score> |
| change in area rating | 3 | 1 | 1 | 3 | 1 | 1 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| change in structure rating | 2 | 1 | 2 | 2 | 1 | 2 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| temporal overlap rating | 3 | 2 | 2 | 3 | 2 | 2 | E | <enter (3) co-occur 8-12 mo/year, (2) 4-8 mo/yr, (1) 0-4 mo/yr, (0) no score> |
| management effectiveness | 3 | 1 | 1 | 3 | 1 | 1 | E | <enter (3) not effective, (2) somewhat effective, (1) very effective, (0) no score> |
| intensity rating | 3 | 1 | 1 | 3 | 1 | 1 | E | <enter (3) high, (2) medium, (1) low, (0) no score> |
|  |  |  |  |  |  |  |  |  |
| residential\_areas | RATING | DQ | WEIGHT | RATING | DQ | WEIGHT | E/C | Rating Instruction |
| frequency of disturbance | 3 | 1 | 1 | 2 | 1 | 1 | C | <enter (3) Annually or less often, (2) Several times per year, (1) Weekly or more often, (0) no score> |
| change in area rating | 2 | 1 | 1 | 3 | 1 | 1 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| change in structure rating | 2 | 1 | 2 | 3 | 1 | 2 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| temporal overlap rating | 2 | 2 | 2 | 2 | 2 | 2 | E | <enter (3) co-occur 8-12 mo/year, (2) 4-8 mo/yr, (1) 0-4 mo/yr, (0) no score> |
| management effectiveness | 3 | 1 | 1 | 3 | 1 | 1 | E | <enter (3) not effective, (2) somewhat effective, (1) very effective, (0) no score> |
| intensity rating | 2 | 1 | 1 | 3 | 1 | 1 | E | <enter (3) high, (2) medium, (1) low, (0) no score> |
|  |  |  |  |  |  |  |  |  |
| roads | RATING | DQ | WEIGHT | RATING | DQ | WEIGHT | E/C | Rating Instruction |
| frequency of disturbance | 3 | 1 | 1 | 3 | 1 | 1 | C | <enter (3) Annually or less often, (2) Several times per year, (1) Weekly or more often, (0) no score> |
| change in area rating | 2 | 1 | 1 | 2 | 1 | 1 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| change in structure rating | 2 | 1 | 2 | 2 | 1 | 2 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| temporal overlap rating | 2 | 2 | 2 | 2 | 2 | 2 | E | <enter (3) co-occur 8-12 mo/year, (2) 4-8 mo/yr, (1) 0-4 mo/yr, (0) no score> |
| management effectiveness | 2 | 1 | 1 | 2 | 1 | 1 | E | <enter (3) not effective, (2) somewhat effective, (1) very effective, (0) no score> |
| intensity rating | 2 | 1 | 1 | 3 | 1 | 1 | E | <enter (3) high, (2) medium, (1) low, (0) no score> |

**Scoring criteria for Controlled and Protected (CP)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **HABITAT NAME** | **Catbangen** | | | **Carlatan** | | | **CRITERIA TYPE** | |
| HABITAT RESILIENCE ATTRIBUTES | RATING | DQ | WEIGHT | RATING | DQ | WEIGHT | E/C | Rating Instruction |
| recruitment rate | 1 | 2 | 2 | 1 | 2 | 2 | C | <enter (3) every 2+ yrs, (2) every 1-2 yrs, (1) every <1 yrs, or (0) no score> |
| natural mortality rate | 3 | 1 | 1 | 3 | 1 | 1 | C | <enter (3) 0-20%, (2) 20-50%, (1) >80% mortality, or (0) no score> |
| connectivity rate | 2 | 3 | 2 | 2 | 3 | 2 | C | <enter (3) <10km, (2) 10-100km, (1) >100km, or (0) no score> |
| recovery time | 2 | 2 | 2 | 2 | 2 | 2 | C | <enter (3) >10 yrs, (2) 1-10 yrs, (1) <1 yr, or (0) no score> |
|  |  |  |  |  |  |  |  |  |
| **HABITAT STRESSOR OVERLAP PROPERTIES** | | | |  |  |  |  |  |
| aquaculture | RATING | DQ | WEIGHT | RATING | DQ | WEIGHT | E/C | Rating Instruction |
| frequency of disturbance | 3 | 1 | 1 | 3 | 1 | 1 | C | <enter (3) Annually or less often, (2) Several times per year, (1) Weekly or more often, (0) no score> |
| change in area rating | 1 | 1 | 1 | 1 | 1 | 1 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| change in structure rating | 1 | 1 | 2 | 1 | 1 | 2 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| temporal overlap rating | 1 | 2 | 2 | 1 | 2 | 2 | E | <enter (3) co-occur 8-12 mo/year, (2) 4-8 mo/yr, (1) 0-4 mo/yr, (0) no score> |
| management effectiveness | 1 | 1 | 1 | 1 | 1 | 1 | E | <enter (3) not effective, (2) somewhat effective, (1) very effective, (0) no score> |
| intensity rating | 1 | 1 | 1 | 1 | 1 | 1 | E | <enter (3) high, (2) medium, (1) low, (0) no score> |
|  |  |  |  |  |  |  |  |  |
| boat | RATING | DQ | WEIGHT | RATING | DQ | WEIGHT | E/C | Rating Instruction |
| frequency of disturbance | 3 | 1 | 1 | 3 | 1 | 1 | C | <enter (3) Annually or less often, (2) Several times per year, (1) Weekly or more often, (0) no score> |
| change in area rating | 1 | 1 | 1 | 1 | 1 | 1 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| change in structure rating | 1 | 1 | 2 | 1 | 1 | 2 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| temporal overlap rating | 1 | 2 | 2 | 1 | 2 | 2 | E | <enter (3) co-occur 8-12 mo/year, (2) 4-8 mo/yr, (1) 0-4 mo/yr, (0) no score> |
| management effectiveness | 1 | 1 | 1 | 1 | 1 | 1 | E | <enter (3) not effective, (2) somewhat effective, (1) very effective, (0) no score> |
| intensity rating | 1 | 1 | 1 | 1 | 1 | 1 | E | <enter (3) high, (2) medium, (1) low, (0) no score> |
| bridges | RATING | DQ | WEIGHT | RATING | DQ | WEIGHT | E/C | Rating Instruction |
| frequency of disturbance | 3 | 1 | 1 | 3 | 1 | 1 | C | <enter (3) Annually or less often, (2) Several times per year, (1) Weekly or more often, (0) no score> |
| change in area rating | 1 | 1 | 1 | 1 | 1 | 1 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| change in structure rating | 1 | 1 | 2 | 1 | 1 | 2 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| temporal overlap rating | 1 | 2 | 2 | 1 | 2 | 2 | E | <enter (3) co-occur 8-12 mo/year, (2) 4-8 mo/yr, (1) 0-4 mo/yr, (0) no score> |
| management effectiveness | 1 | 1 | 1 | 1 | 1 | 1 | E | <enter (3) not effective, (2) somewhat effective, (1) very effective, (0) no score> |
| intensity rating | 1 | 1 | 1 | 1 | 1 | 1 | E | <enter (3) high, (2) medium, (1) low, (0) no score> |
|  |  |  |  |  |  |  |  |  |
| landbridges | RATING | DQ | WEIGHT | RATING | DQ | WEIGHT | E/C | Rating Instruction |
| frequency of disturbance | 3 | 1 | 1 | 3 | 1 | 1 | C | <enter (3) Annually or less often, (2) Several times per year, (1) Weekly or more often, (0) no score> |
| change in area rating | 1 | 1 | 1 | 1 | 1 | 1 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| change in structure rating | 1 | 1 | 2 | 1 | 1 | 2 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| temporal overlap rating | 1 | 2 | 2 | 1 | 2 | 2 | E | <enter (3) co-occur 8-12 mo/year, (2) 4-8 mo/yr, (1) 0-4 mo/yr, (0) no score> |
| management effectiveness | 1 | 1 | 1 | 1 | 1 | 1 | E | <enter (3) not effective, (2) somewhat effective, (1) very effective, (0) no score> |
| intensity rating | 1 | 1 | 1 | 1 | 1 | 1 | E | <enter (3) high, (2) medium, (1) low, (0) no score> |
|  |  |  |  |  |  |  |  |  |
| netfishing | RATING | DQ | WEIGHT | RATING | DQ | WEIGHT | E/C | Rating Instruction |
| frequency of disturbance | 3 | 1 | 1 | 3 | 1 | 1 | C | <enter (3) Annually or less often, (2) Several times per year, (1) Weekly or more often, (0) no score> |
| change in area rating | 1 | 1 | 1 | 1 | 1 | 1 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| change in structure rating | 1 | 1 | 2 | 1 | 1 | 2 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| temporal overlap rating | 1 | 2 | 2 | 1 | 2 | 2 | E | <enter (3) co-occur 8-12 mo/year, (2) 4-8 mo/yr, (1) 0-4 mo/yr, (0) no score> |
| management effectiveness | 1 | 1 | 1 | 1 | 1 | 1 | E | <enter (3) not effective, (2) somewhat effective, (1) very effective, (0) no score> |
| intensity rating | 1 | 1 | 1 | 1 | 1 | 1 | E | <enter (3) high, (2) medium, (1) low, (0) no score> |
|  |  |  |  |  |  |  |  |  |
| spearfishing | RATING | DQ | WEIGHT | RATING | DQ | WEIGHT | E/C | Rating Instruction |
| frequency of disturbance | 3 | 1 | 1 | 3 | 1 | 1 | C | <enter (3) Annually or less often, (2) Several times per year, (1) Weekly or more often, (0) no score> |
| change in area rating | 1 | 1 | 1 | 1 | 1 | 1 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| change in structure rating | 1 | 1 | 2 | 1 | 1 | 2 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| temporal overlap rating | 1 | 2 | 2 | 1 | 2 | 2 | E | <enter (3) co-occur 8-12 mo/year, (2) 4-8 mo/yr, (1) 0-4 mo/yr, (0) no score> |
| management effectiveness | 1 | 1 | 1 | 1 | 1 | 1 | E | <enter (3) not effective, (2) somewhat effective, (1) very effective, (0) no score> |
| intensity rating | 1 | 1 | 1 | 1 | 1 | 1 | E | <enter (3) high, (2) medium, (1) low, (0) no score> |
|  |  |  |  |  |  |  |  |  |
| mangrove\_walk | RATING | DQ | WEIGHT | RATING | DQ | WEIGHT | E/C | Rating Instruction |
| frequency of disturbance | 3 | 1 | 1 | 3 | 1 | 1 | C | <enter (3) Annually or less often, (2) Several times per year, (1) Weekly or more often, (0) no score> |
| change in area rating | 1 | 1 | 1 | 1 | 1 | 1 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| change in structure rating | 1 | 1 | 2 | 1 | 1 | 2 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| temporal overlap rating | 1 | 2 | 2 | 1 | 2 | 2 | E | <enter (3) co-occur 8-12 mo/year, (2) 4-8 mo/yr, (1) 0-4 mo/yr, (0) no score> |
| management effectiveness | 1 | 1 | 1 | 1 | 1 | 1 | E | <enter (3) not effective, (2) somewhat effective, (1) very effective, (0) no score> |
| intensity rating | 1 | 1 | 1 | 1 | 1 | 1 | E | <enter (3) high, (2) medium, (1) low, (0) no score> |
| megainfrastructure | RATING | DQ | WEIGHT | RATING | DQ | WEIGHT | E/C | Rating Instruction |
| frequency of disturbance | 3 | 1 | 1 | 3 | 1 | 1 | C | <enter (3) Annually or less often, (2) Several times per year, (1) Weekly or more often, (0) no score> |
| change in area rating | 1 | 1 | 1 | 1 | 1 | 1 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| change in structure rating | 1 | 1 | 2 | 1 | 1 | 2 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| temporal overlap rating | 1 | 2 | 2 | 1 | 2 | 2 | E | <enter (3) co-occur 8-12 mo/year, (2) 4-8 mo/yr, (1) 0-4 mo/yr, (0) no score> |
| management effectiveness | 1 | 1 | 1 | 1 | 1 | 1 | E | <enter (3) not effective, (2) somewhat effective, (1) very effective, (0) no score> |
| intensity rating | 1 | 1 | 1 | 1 | 1 | 1 | E | <enter (3) high, (2) medium, (1) low, (0) no score> |
|  |  |  |  |  |  |  |  |  |
| residential\_areas | RATING | DQ | WEIGHT | RATING | DQ | WEIGHT | E/C | Rating Instruction |
| frequency of disturbance | 3 | 1 | 1 | 3 | 1 | 1 | C | <enter (3) Annually or less often, (2) Several times per year, (1) Weekly or more often, (0) no score> |
| change in area rating | 1 | 1 | 1 | 1 | 1 | 1 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| change in structure rating | 1 | 1 | 2 | 1 | 1 | 2 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| temporal overlap rating | 1 | 2 | 2 | 1 | 2 | 2 | E | <enter (3) co-occur 8-12 mo/year, (2) 4-8 mo/yr, (1) 0-4 mo/yr, (0) no score> |
| management effectiveness | 1 | 1 | 1 | 1 | 1 | 1 | E | <enter (3) not effective, (2) somewhat effective, (1) very effective, (0) no score> |
| intensity rating | 1 | 1 | 1 | 1 | 1 | 1 | E | <enter (3) high, (2) medium, (1) low, (0) no score> |
|  |  |  |  |  |  |  |  |  |
| roads | RATING | DQ | WEIGHT | RATING | DQ | WEIGHT | E/C | Rating Instruction |
| frequency of disturbance | 3 | 1 | 1 | 3 | 1 | 1 | C | <enter (3) Annually or less often, (2) Several times per year, (1) Weekly or more often, (0) no score> |
| change in area rating | 1 | 1 | 1 | 1 | 1 | 1 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| change in structure rating | 1 | 1 | 2 | 1 | 1 | 2 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| temporal overlap rating | 1 | 2 | 2 | 1 | 2 | 2 | E | <enter (3) co-occur 8-12 mo/year, (2) 4-8 mo/yr, (1) 0-4 mo/yr, (0) no score> |
| management effectiveness | 1 | 1 | 1 | 1 | 1 | 1 | E | <enter (3) not effective, (2) somewhat effective, (1) very effective, (0) no score> |
| intensity rating | 1 | 1 | 1 | 1 | 1 | 1 | E | <enter (3) high, (2) medium, (1) low, (0) no score> |

**Scoring criteria for Public-Private Partnership Intervention (PPPI)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **HABITAT NAME** | **Catbangen** | | | **Carlatan** | | | **CRITERIA TYPE** | |
| HABITAT RESILIENCE ATTRIBUTES | RATING | DQ | WEIGHT | RATING | DQ | WEIGHT | E/C | Rating Instruction |
| recruitment rate | 1 | 2 | 2 | 1 | 2 | 2 | C | <enter (3) every 2+ yrs, (2) every 1-2 yrs, (1) every <1 yrs, or (0) no score> |
| natural mortality rate | 3 | 1 | 1 | 3 | 1 | 1 | C | <enter (3) 0-20%, (2) 20-50%, (1) >80% mortality, or (0) no score> |
| connectivity rate | 2 | 3 | 2 | 2 | 3 | 2 | C | <enter (3) <10km, (2) 10-100km, (1) >100km, or (0) no score> |
| recovery time | 2 | 2 | 2 | 2 | 2 | 2 | C | <enter (3) >10 yrs, (2) 1-10 yrs, (1) <1 yr, or (0) no score> |
|  |  |  |  |  |  |  |  |  |
| **HABITAT STRESSOR OVERLAP PROPERTIES** | | | |  |  |  |  |  |
| aquaculture | RATING | DQ | WEIGHT | RATING | DQ | WEIGHT | E/C | Rating Instruction |
| frequency of disturbance | 2 | 1 | 1 | 2 | 1 | 1 | C | <enter (3) Annually or less often, (2) Several times per year, (1) Weekly or more often, (0) no score> |
| change in area rating | 1 | 1 | 1 | 1 | 1 | 1 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| change in structure rating | 1 | 1 | 2 | 1 | 1 | 2 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| temporal overlap rating | 1 | 2 | 2 | 1 | 2 | 2 | E | <enter (3) co-occur 8-12 mo/year, (2) 4-8 mo/yr, (1) 0-4 mo/yr, (0) no score> |
| management effectiveness | 1 | 1 | 1 | 1 | 1 | 1 | E | <enter (3) not effective, (2) somewhat effective, (1) very effective, (0) no score> |
| intensity rating | 1 | 1 | 1 | 1 | 1 | 1 | E | <enter (3) high, (2) medium, (1) low, (0) no score> |
|  |  |  |  |  |  |  |  |  |
| boat | RATING | DQ | WEIGHT | RATING | DQ | WEIGHT | E/C | Rating Instruction |
| frequency of disturbance | 2 | 1 | 1 | 2 | 1 | 1 | C | <enter (3) Annually or less often, (2) Several times per year, (1) Weekly or more often, (0) no score> |
| change in area rating | 1 | 1 | 1 | 1 | 1 | 1 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| change in structure rating | 1 | 1 | 2 | 1 | 1 | 2 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| temporal overlap rating | 1 | 2 | 2 | 1 | 2 | 2 | E | <enter (3) co-occur 8-12 mo/year, (2) 4-8 mo/yr, (1) 0-4 mo/yr, (0) no score> |
| management effectiveness | 1 | 1 | 1 | 1 | 1 | 1 | E | <enter (3) not effective, (2) somewhat effective, (1) very effective, (0) no score> |
| intensity rating | 1 | 1 | 1 | 1 | 1 | 1 | E | <enter (3) high, (2) medium, (1) low, (0) no score> |
| bridges | RATING | DQ | WEIGHT | RATING | DQ | WEIGHT | E/C | Rating Instruction |
| frequency of disturbance | 2 | 1 | 1 | 2 | 1 | 1 | C | <enter (3) Annually or less often, (2) Several times per year, (1) Weekly or more often, (0) no score> |
| change in area rating | 1 | 1 | 1 | 1 | 1 | 1 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| change in structure rating | 1 | 1 | 2 | 1 | 1 | 2 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| temporal overlap rating | 1 | 2 | 2 | 1 | 2 | 2 | E | <enter (3) co-occur 8-12 mo/year, (2) 4-8 mo/yr, (1) 0-4 mo/yr, (0) no score> |
| management effectiveness | 1 | 1 | 1 | 1 | 1 | 1 | E | <enter (3) not effective, (2) somewhat effective, (1) very effective, (0) no score> |
| intensity rating | 1 | 1 | 1 | 1 | 1 | 1 | E | <enter (3) high, (2) medium, (1) low, (0) no score> |
|  |  |  |  |  |  |  |  |  |
| landbridges | RATING | DQ | WEIGHT | RATING | DQ | WEIGHT | E/C | Rating Instruction |
| frequency of disturbance | 2 | 1 | 1 | 2 | 1 | 1 | C | <enter (3) Annually or less often, (2) Several times per year, (1) Weekly or more often, (0) no score> |
| change in area rating | 1 | 1 | 1 | 1 | 1 | 1 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| change in structure rating | 1 | 1 | 2 | 1 | 1 | 2 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| temporal overlap rating | 1 | 2 | 2 | 1 | 2 | 2 | E | <enter (3) co-occur 8-12 mo/year, (2) 4-8 mo/yr, (1) 0-4 mo/yr, (0) no score> |
| management effectiveness | 1 | 1 | 1 | 1 | 1 | 1 | E | <enter (3) not effective, (2) somewhat effective, (1) very effective, (0) no score> |
| intensity rating | 1 | 1 | 1 | 1 | 1 | 1 | E | <enter (3) high, (2) medium, (1) low, (0) no score> |
|  |  |  |  |  |  |  |  |  |
| netfishing | RATING | DQ | WEIGHT | RATING | DQ | WEIGHT | E/C | Rating Instruction |
| frequency of disturbance | 2 | 1 | 1 | 2 | 1 | 1 | C | <enter (3) Annually or less often, (2) Several times per year, (1) Weekly or more often, (0) no score> |
| change in area rating | 1 | 1 | 1 | 1 | 1 | 1 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| change in structure rating | 1 | 1 | 2 | 1 | 1 | 2 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| temporal overlap rating | 1 | 2 | 2 | 1 | 2 | 2 | E | <enter (3) co-occur 8-12 mo/year, (2) 4-8 mo/yr, (1) 0-4 mo/yr, (0) no score> |
| management effectiveness | 1 | 1 | 1 | 1 | 1 | 1 | E | <enter (3) not effective, (2) somewhat effective, (1) very effective, (0) no score> |
| intensity rating | 1 | 1 | 1 | 1 | 1 | 1 | E | <enter (3) high, (2) medium, (1) low, (0) no score> |
|  |  |  |  |  |  |  |  |  |
| spearfishing | RATING | DQ | WEIGHT | RATING | DQ | WEIGHT | E/C | Rating Instruction |
| frequency of disturbance | 2 | 1 | 1 | 2 | 1 | 1 | C | <enter (3) Annually or less often, (2) Several times per year, (1) Weekly or more often, (0) no score> |
| change in area rating | 1 | 1 | 1 | 1 | 1 | 1 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| change in structure rating | 1 | 1 | 2 | 1 | 1 | 2 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| temporal overlap rating | 1 | 2 | 2 | 1 | 2 | 2 | E | <enter (3) co-occur 8-12 mo/year, (2) 4-8 mo/yr, (1) 0-4 mo/yr, (0) no score> |
| management effectiveness | 1 | 1 | 1 | 1 | 1 | 1 | E | <enter (3) not effective, (2) somewhat effective, (1) very effective, (0) no score> |
| intensity rating | 1 | 1 | 1 | 1 | 1 | 1 | E | <enter (3) high, (2) medium, (1) low, (0) no score> |
|  |  |  |  |  |  |  |  |  |
| mangrove\_walk | RATING | DQ | WEIGHT | RATING | DQ | WEIGHT | E/C | Rating Instruction |
| frequency of disturbance | 2 | 1 | 1 | 2 | 1 | 1 | C | <enter (3) Annually or less often, (2) Several times per year, (1) Weekly or more often, (0) no score> |
| change in area rating | 1 | 1 | 1 | 1 | 1 | 1 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| change in structure rating | 1 | 1 | 2 | 1 | 1 | 2 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| temporal overlap rating | 1 | 2 | 2 | 1 | 2 | 2 | E | <enter (3) co-occur 8-12 mo/year, (2) 4-8 mo/yr, (1) 0-4 mo/yr, (0) no score> |
| management effectiveness | 1 | 1 | 1 | 1 | 1 | 1 | E | <enter (3) not effective, (2) somewhat effective, (1) very effective, (0) no score> |
| intensity rating | 1 | 1 | 1 | 1 | 1 | 1 | E | <enter (3) high, (2) medium, (1) low, (0) no score> |
| megainfrastructure | RATING | DQ | WEIGHT | RATING | DQ | WEIGHT | E/C | Rating Instruction |
| frequency of disturbance | 2 | 1 | 1 | 2 | 1 | 1 | C | <enter (3) Annually or less often, (2) Several times per year, (1) Weekly or more often, (0) no score> |
| change in area rating | 1 | 1 | 1 | 1 | 1 | 1 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| change in structure rating | 1 | 1 | 2 | 1 | 1 | 2 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| temporal overlap rating | 1 | 2 | 2 | 1 | 2 | 2 | E | <enter (3) co-occur 8-12 mo/year, (2) 4-8 mo/yr, (1) 0-4 mo/yr, (0) no score> |
| management effectiveness | 1 | 1 | 1 | 1 | 1 | 1 | E | <enter (3) not effective, (2) somewhat effective, (1) very effective, (0) no score> |
| intensity rating | 1 | 1 | 1 | 1 | 1 | 1 | E | <enter (3) high, (2) medium, (1) low, (0) no score> |
| residential\_areas | RATING | DQ | WEIGHT | RATING | DQ | WEIGHT | E/C | Rating Instruction |
| frequency of disturbance | 2 | 1 | 1 | 2 | 1 | 1 | C | <enter (3) Annually or less often, (2) Several times per year, (1) Weekly or more often, (0) no score> |
| change in area rating | 1 | 1 | 1 | 1 | 1 | 1 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| change in structure rating | 1 | 1 | 2 | 1 | 1 | 2 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| temporal overlap rating | 1 | 2 | 2 | 1 | 2 | 2 | E | <enter (3) co-occur 8-12 mo/year, (2) 4-8 mo/yr, (1) 0-4 mo/yr, (0) no score> |
| management effectiveness | 1 | 1 | 1 | 1 | 1 | 1 | E | <enter (3) not effective, (2) somewhat effective, (1) very effective, (0) no score> |
| intensity rating | 1 | 1 | 1 | 1 | 1 | 1 | E | <enter (3) high, (2) medium, (1) low, (0) no score> |
|  |  |  |  |  |  |  |  |  |
| roads | RATING | DQ | WEIGHT | RATING | DQ | WEIGHT | E/C | Rating Instruction |
| frequency of disturbance | 2 | 1 | 1 | 2 | 1 | 1 | C | <enter (3) Annually or less often, (2) Several times per year, (1) Weekly or more often, (0) no score> |
| change in area rating | 1 | 1 | 1 | 1 | 1 | 1 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| change in structure rating | 1 | 1 | 2 | 1 | 1 | 2 | C | <enter (3) 50-100% loss, (2) 20-50% loss, (1) 0-20% loss, (0) no score> |
| temporal overlap rating | 1 | 2 | 2 | 1 | 2 | 2 | E | <enter (3) co-occur 8-12 mo/year, (2) 4-8 mo/yr, (1) 0-4 mo/yr, (0) no score> |
| management effectiveness | 1 | 1 | 1 | 1 | 1 | 1 | E | <enter (3) not effective, (2) somewhat effective, (1) very effective, (0) no score> |
| intensity rating | 1 | 1 | 1 | 1 | 1 | 1 | E | <enter (3) high, (2) medium, (1) low, (0) no score> |