# S5 Table. Response variables and drivers’ relationships.

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| **Drivers** | **Indicators** | **Hypothesized relationships** | **Reference** |
| Freshwater | Reef builders | Decreased salinity can inhibit CCA and coral growth | [1,2] |
| Nutrients | Benthic algae | Increased nutrients can promote algae growth |
| Wave power | CCA | Increased wave power can promote CCA growth | [3–5] |
| Coral | Increased wave power can inhibit coral growth |
| Resource fishes | Higher resource fish biomass is expected in areas with higher wave power which creates protection from fishing pressure |
| Geography (Depth and Distance to shore) | Reef builders | Reef builders abundance is higher in offshore and deeper waters (as long as light conditions allow for photosynthesis) | [3,6,7] |
| Benthic algae | Benthic algae abundance is higher nearshore and in shallow waters. |
| Resource fishes | Higher resource fish biomass is expected in offshore and deeper waters protected from fishing pressure |
| Habitat topography (reef flats and slopes) | Reef builders | Reef builders abundance is higher along reef slopes | [8,9] |
| Benthic algae | Benthic algae abundance is higher on reef flats |
| Resource fishes | Higher resource fish biomass is expected along the reef slopes |
| Habitat exposure | Reef builders | Reef builders abundance is higher in exposed areas where water is well mixed | [10,11] |
| Benthic algae | Benthic algae abundance is higher in sheltered areas with poor mixing |
| Habitat complexity | Reef builders | Reef builders abundance is higher in areas with higher complexity | [12,13] |
| Benthic algae | Benthic algae abundance is higher in areas with lower complexity |
| Resource fishes | Higher resource fish biomass is expected in areas with higher complexity |
| Reef builders | Resource fishes | Higher resource fish biomass is expected in areas with high reef builders abundance | [12] |
| Benthic algae | Herbivores | Higher resource fish biomass is expected in areas with high turf algae cover | [14] |

This table provides the hypothesized relationships between the drivers and coral reef indicators.

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