

Gladstone Healthy Harbour Partnership (GHHP) Independent Science Panel (ISP)

Chair's report from ISP meeting #17 held on 27-28 October 2015

The ISP meeting was held on day 1 and a joint ISP/Management Committee (MC) meeting on day 2. The objectives of the ISP meeting were to provide ISP members with an update on GHHP activities, and to review progress against the GHHP Science Program milestones. In addition the ISP discussed the Department of Environment and Heritage (DEHP) report card alignment report; completed the confidence rating for each component of the 2015 Report Card; and finalised the 2015 Report Card Technical Report contents and structure.

The Science Program is on track to deliver the required science inputs into the 2015 Pilot Report Card and overall the milestones are on track. Although in consultation with the GHHP Management Committee there have been some revisions of deadlines for data agreements and contracting of projects. Dr Murray Logan (AIMS) presented on statistical methodology for 2015 Report Card to ensure the methods used were as required by the ISP. The ISP finalised the 2015 Report Card Technical Report contents and structure and what material would be on the website.

The ISP finalised their confidence rating (three-point scale - low, moderate, high) for each component of the 2015 Report Card. The assessment included the identification of issues with the data used to inform the report card and this information will inform improvement actions in the future. The results of the ISP assessment was:

- **Environmental – moderate**
Issues: There is no data available for: mangroves and fish and crabs. There is no data available some water quality nutrients (chlorophyll-a, orthophosphate, NOx, ammonia) and one sediment quality measure (mercury). The ISP identified issues with the water and sediment quality data noting the water quality is collected from 'far-field' sites only, there are only four samples/year and collection is not standardised for tide. The sediment quality data is only collected from 'far-field' sites.
- **Social – high**
Issues: There are some issues over the data as the CATI survey only uses landlines phones and hence there is under-representation of young people. The assessment is largely based on single survey (few corroborating data) and there had been a reclassification of marine safety incidents by MSQ (this is appropriate change comparisons across years will need to be done carefully).
- **Cultural – low**
Issues: There is no data available for cultural heritage (it will be available in 2016). There are some issues over the data being based on single survey only (no corroborating data) and the interpretation of some indicators need to be done with care e.g. sense of place as they are beliefs-based, subjective and can be affected by recent events.
- **Economic – high**
Issues: There are some issues with the data. With economic performance it is difficult to separate effects of Gladstone Harbour from Gladstone City and there are some issues over the use of capacity utilisation. Tourism is not well defined as hotel accommodation is not all tourists. The QFISH data may be unreliable. It is also based on single survey but there are some corroborating data.

The ISP continued their discussion about the Queensland State Government desire to align the methodology and content of report cards within the Great Barrier Reef World Heritage Area. The ISP discussed the Department of Environment and Heritage (DEHP) report card alignment report. It was agreed the Chair will provide comments on the report but noted a consistent methodology is not appropriate across all components within the Gladstone Harbour Report Card, so it may be more difficult to achieve across the range of indicators used in different report cards.

Ms Toni Cannard (CSIRO) delivered a Skype presentation on the ISP005 Social, Cultural and Economic project. The ISP members discussed the report and its results with Toni, and clarified the methodology used in the project.

Gladstone Region Environmental Advisory Network (GREAN) representatives joined the ISP for lunch. We discussed the methodology used to collect data and develop scores and grades for the social and economic components of the report card, and how the outcomes of the Fish Health Workshop conducted in April will be implemented.

The ISP acknowledged the significant amount of work the science team had completed since our last meeting, thanked them for their dedication and noted the ongoing high quality of their work. The next ISP meeting is scheduled for the 4 May 2015 in Gladstone.

At the joint ISP/MC meeting on day 2 the ISP delivered a presentation on the draft results in the 2015 Gladstone Harbour Report Card, concentrating on what is new or different from 2014. This included an outline of the measures (78) and indicators (27) used and four measures (chlorophyll-a, orthophosphate & NOx in water; mercury in sediments) removed from the report card as their guideline values (GL) were less than the limit of reporting. The ISP also presented the results of their confidence rating assessment for the four components of the 2015 Report Card.

The ISP flagged the water quality nutrient results: nitrogen exceeded the GL in 9/13 zones, phosphorus in 7/13 zones and ammonia in all 13 zones. The ISP has instigated discussions with PCIMP and DEHP regarding the potential causes and effects of the high nutrient levels. Neither the ISP, PCIMP nor DEHP could identify an obvious source of ammonia, nor PCIMP and DEHP suggested that sample contamination or laboratory issues might have led to high ammonia levels. This will be investigated further with PCIMP. The ISP noted there would need to be careful consideration before omitting data just because it did not reflect an expected result. The ISP also highlighted the low scores for habitat quality, especially for corals but also for seagrasses to a lesser extent.