

	National Environmental Information Infrastructure Reference Group	November 17 th , 2015
		Final Minutes
		Endorsed

MEETING #05 – MINUTES Final

Meeting	National Environmental Information Infrastructure Reference Group
Chair	Dr. Louise Minty, Assistant Director, Environmental Information Services
Meeting Date	November 17 th , 2015
Location	Bureau of Meteorology – Darcy Room Level 3, 14 Childers Street, Canberra
Time	10:00 am to 13:30 pm

MEMBERS

Member	Organisation	Attending
Louise Minty (Chair)	Bureau of Meteorology, Environmental Information Services	Member
John LaSalle	Atlas of Living Australia	Peter Brenton
John D Moore	Australian Bureau of Statistics	Member
Adrian Burton	Australian National Data Service	Member
Andrew Dingian	Australian Urban Research Infrastructure Network	Member
Tony Boston	Bureau of Meteorology, Information Systems and Services	Member
Phil Tickle	CRC Spatial Information	Apology
Cynthia Love	CSIRO	Member
Evert Bleys	Department of Agriculture	Member
Pia Waugh	Department of Prime Minister and Cabinet, Data Infrastructure and Government Engagement	Michelle McCue
Tim Neal	Department of Prime Minister and Cabinet, Data and the Economy and DataStart	Member
TBC	Department of Education	Lindsay Morgan
Lee-Anne Shepherd	Department of the Environment	Jeff Tranter
Neal Evans	Geoscience Australia	Member
Tim Moltmann	Integrated Marine Observing System	Member
Kayt Watts	Murray Darling Basin Authority	Laily Wallace
Ben Evans	National Computational Infrastructure	Apology
Tim Clancy	Terrestrial Ecosystems Research Network	Member

SECRETARIAT

Representative	Organisation
Andre Zerger	Bureau of Meteorology, Environmental Information Services

OBSERVERS

Representative	Organisation
Rachel Horswell	Bureau of Meteorology, Environmental Information Services
Vivienne Bordas	Bureau of Meteorology, Environmental Information Services
John Timermanis	Bureau of Meteorology, Environmental Information Services
Garrie Irons	Bureau of Meteorology, Environmental Information Services
Melanie Barlow	Australian National Data Service

MINUTES

Item 5.1	Opening and attendance
	Dr Louise Minty (Chair) welcomed participants to the fifth meeting of the reference group.
Item 5.2	Minutes from Meeting #04
	<p>Approved the minutes as a true and accurate record of the NEII Reference Group meeting #4 held on the 28th July 2015 noting that these will be made public at neii.gov.au along with earlier minutes.</p> <p>Rachel Horswell provided an update of the action items (see Action Summary) at the end of the minutes noting that the Conformance Framework Working Group is still active.</p>
Item 5.3	National Environmental Monitoring Sites Register
	<p>Garrie Irons (NEII Business Analyst) provided an overview of the proposed National Environmental Monitoring Sites Register (NEMSR). The NEMSR will be a register of national environmental monitoring sites, including limited site metadata. It will enable site information, or collections of sites to be managed and referenced in a uniform manner. The NEMSR will provide a cross-domain overview of Australia's environmental monitoring sites. There are several benefits to maintaining explicit registers of monitoring sites:</p> <ul style="list-style-type: none">• It will provide a consolidated view of our national monitoring capability.• It will enrich observational data by providing information about the monitoring location.• It will enable discovery of environmental information by location. <p>The NEMSR will manage site information within NEII. In a fully mature infrastructure (with O&M-based information models widely adopted and deployed) monitoring site information may be queried dynamically directly</p>

	<p>through provider web data services.</p> <p>Current activities to develop NEMSR include:</p> <ul style="list-style-type: none"> • Stakeholder consultations to capture the high level requirements enabling the initiation of the build project. • Detailed stakeholder engagement will continue through the build project to address data needs and design elements. • The NEMSR build will commence in early 2016. • An immediate goal for the project team is to identify candidate monitoring site collections for inclusion in the first release of the NEMSR. <p>Next steps:</p> <ul style="list-style-type: none"> • Reference group members to propose candidate monitoring site collections for inclusion in the NEMSR • The NEII programme to keep partners and stakeholders informed • The Bureau to shortly commence the build of NEMSR.
<p>Discussion</p>	<p>ABARES queried the use of a federation or collation model? The objective is to eventually move to a federated model to populate the NEMSR (machine-to-machine), however initially it will be a collation exercise through web user interfaces and Extract Transform Load (ETL) tools to ingest custodian site metadata. Members discussed the link between the sites and more detailed information including actual observation data.</p> <p>CSIRO queried if any quality assurance will be undertaken on the data before its included in the NEMSR? As this is a developing project QA/QC has not been considered in detail however minimum requirements for inclusion will be developed. For example the observational data that the NEMSR points to must be publically available and site data must have an active custodian.</p> <p>The Department of the Environment commented that there is high value in having a register of sites throughout Australia (spatial and temporal) to identify monitoring gaps, for example in biodiversity surveys.</p> <p>The Bureau noted that the technical build of the NEMSR will not be the key challenge. Populating and maintaining the NEMSR through stakeholder engagement, agreements and governance arrangements will be central to its success.</p> <p>TERN identified some elements of the NEMSR that will require resolution including for example how it will discriminate between ongoing monitoring sites, which are revisited, or single visit sites.</p> <p>IMOS expressed concern that the Candidate Observation Networks shown for the Ocean domain did not take full advantage of site level information already openly available via AODN. The IMOS Director undertook to provide further information on this.</p> <p>Stakeholder interactions will continue through to June 2016. Reference Group members are invited participate in the NEMSR activity by contacting the NEII Programme team.</p>
<p>Recommendations</p>	<p>Noted the planned NEMSR build in 15-16 as per the NEII Roadmap</p> <p>Noted the importance of including partner data into the NEMSR</p>

	For members to propose collections of monitoring sites for inclusion into the NEMSR
ACTION	Action 5.1 Reference Group members to self-nominate to participate in the NEMSR activity through Andre Zerger including nominating monitoring site collections for inclusion
Item 5.4	NEII Roadmap
	The NEII Roadmap provides a high level overview of the purpose, benefits, design and delivery of a federated environmental information system for improving discovery access and re-use of national environmental information. It is the primary communication tool to inform stakeholders about the development path for the NEII to 2019. It is framed around five focus areas: (a) communication, (b) engagement, (c) policies and frameworks, (d) data management, and (e) the build of IT components. Since the last meeting of the group updates have included an improved treatment of benefits captured through stakeholder interviews earlier in 2015. The NEII Roadmap has been published on the NEII website and will be updated annually to keep it aligned with the NEII programme plan.
Recommendations	That the Reference Group notes the publication of the NEII Roadmap 2014-2019 and the NEII programme thanks members for their contribution to the benefits work.
Item 5.5	Vocabulary's and information modelling
	<p>Andre Zerger provided an overview of the Information Modelling Discussion Paper that was tabled at meeting #3 in March 2015. The paper provided a high level overview of the role of information modelling in the context of NEII, as well as introducing key elements of their development and the standards adopted for information modelling. At the same meeting ANDS presented their work on the planned implementation of a vocabulary service, released in September 2015. The service supports organisations to develop, publish and access controlled vocabularies. The service is being extended to provide support for authoring functions (create, edit, approve, version, publish) through a joint project with representatives from IMOS, TERN, ALA, CSIRO and BOM. An operational vocabulary service is also a core element of the NEII Reference Architecture, scheduled for development in 2016-17.</p> <p>The initial use case for a vocabulary service includes supporting improved metadata searches, and storing environmental parameters for the NEMSR. The commencement of the NEMSR project will define the timing for identifying existing or developing new environmental information vocabularies, as well as delivering a vocabulary service. In the interim the NEII Programme proposes to work with ANDS and its vocabulary service, potentially using that capability to support initial vocabulary service needs in the NEII.</p>
Discussion and Questions	A number of groups are already using the ANDS Vocabulary Service including IMOS and Geoscience Australia. The implementation of the Pool Party software for authoring vocabularies is a particularly valuable element of the ANDS implementation.
Recommendation	Members to note the NEII Programme position around information modeling and vocabulary service development
Item 5.6	Towards Catalogue Services: A Journey of Discovery
	Neil Evans (Geoscience Australia) presented on the topic Towards Catalogue Services: A Journey of Discovery providing an overview of where

	<p>Geoscience has come since 1946 in regard to metadata, metadata management and catalogues. The presentation focussed on standards evolution, cross harvesting with related catalogues, enterprise approaches to metadata curation and emerging challenges such as the development of workflows and tools for metadata management.</p>
Item 5.7	Metadata Catalogue Implementation – Issues and Challenges
	<p>Andre Zerger led a discussion on metadata catalogues based on recent experiences in the NEII landscape. Topics addressed included the role of aggregators and master catalogues; selected metadata harvesting and development of rule-sets and policies to support effective cross-harvesting; the need for joint agreement regarding respective catalogue roles (aggregators and master catalogues).</p>
Discussion and Questions	<p>Reference group members discussed current harvesting arrangements and the possible impact of duplicate record on metadata discovery and user experience. Groups with more mature catalogues and harvesting arrangements such as ANDS noted that duplicate should not be seen as a problem if mature processes (e.g. identifiers) are in place to help users differentiate products. The NEII programme noted that its catalogues role will ultimately be as an aggregator but the current implementation is not capable of selectively harvesting from other catalogues (e.g. from the Geoscience Australia catalogue). This capability will be developed in coming months and initially trialed through a harvesting arrangement with Geoscience Australia before developing formal workflows to enable harvesting from other catalogues for NEII-conformant data services.</p>
Item 5.8	Member Updates - Including relevant engagement with States and Territories
	<p>ABS – A new head of the ABS has been appointed leading to the release of a new corporate plan and significant organizational change. The major activity currently underway is the business (IT) transformation programme led by Trevor Sutton. ABS are working with a group called Community Insights to provide improved thematic information for local government and continue to implement the <i>.stat</i> framework for providing access to statistical data.</p> <p>IMOS – Currently contributing to the National State of the Environment reporting process and actively involved in the Reef Integration Monitoring and Reporting Program (RIMREP).</p> <p>TERN – Have recently implemented major changes in data acquisition processes resulting in a suite of new data available through the portal.</p> <p>CSIRO – Have developed a system for publishing and citing software resources; recently released CSIRO ASKAP data and currently working through the challenge of citing streaming data. A new programme is underway called Data Management Capability and Harvesting providing links to data that is not held by CSIRO with an initial focus on NCI data. ANDS and AAF have become members of the Orchid consortium for supporting researcher IDs.</p> <p>ALA – Are building and soon to release a generalized data collection system (forms-based) to support citizen science activities. The tool will support systematic surveys and will be live in a few weeks. Capability will integrate with the MERIT system developed jointly with the Department of the Environment. Working with the NESP programme to support their use of the BioCollect tool in addition to working with the MDBA and the Sustainable</p>

	<p>Rivers Audit.</p> <p>Department of Agriculture – Have an agreement to replace 1998 metadata catalogue. John Sims has been nominated as the agencies data champion. Data warehousing all data, expect this to be an open data service. Working with ABS on the outcomes of Agricultural statistics review. Metadata workshop, postponed until the new year.</p> <p>Department of the Environment – The Essential Measures Programme is developing an information model for flora site data exchange. The model will help improve the integration of data given the amount of data coming from industry through for example environmental impact assessments.</p> <p>Department of Education – Are focused on developing a long term strategy for NCRIS beyond 2016.</p> <p>ANDS – The ANDS vocabulary service is now in production and in transition to a services model. Catalogue is currently under revision in regard to harvesting and aggregation. As a cross-domain organization ANDS are looking at improving services discovery across collections.</p> <p>MDBA – Currently looking at developing an enterprise information strategy given the breadth of data that MDBA collects and analyses. This will include improving the systems that support it and developing an information architecture.</p> <p>AURIN – Given resourcing challenges AURIN are looking at reaching out engage with new industries to establish collaborations.</p> <p>PM&C – Public Data Branch has recently been established and is led by Helen Owens. The branch comprises three sections led by Pia Waugh (data infrastructure and government engagement), Tim Neal (Data and the Economy and DataStart) and Judy Daughton (strategy and policy).</p>
ACTION	Action 5.2 Secretariat to provide opportunity for NCRIS facilities to present at future meetings
Item 5.9	Other business Louise Minty informed members that at the last Australian Government Environmental Information Advisory Group meeting (November 16 th 2015) that the National Principles for Environmental Information were endorsed and are expected to be released shortly.
ACTIONS	Action 5.3 – NEII programme to provide all members the finalised National Principles for Environmental Information noting they will shortly be released.
NEXT MEETING	Next meeting April 2016

ACTIVE ACTIONS

Actions completed and accepted by the NEII-RG will be removed from the rolling action list and are available at neii.gov.au (password protected collaboration space)

#	Action	Due	Status
5.3	NEII programme to provide all members the finalised National Principles for Environmental Information noting they will shortly be released	With minutes	Complete
5.2	Secretariat to provide opportunity for NCRIS facilities to present at future meetings	Ongoing	IMOS are presenting at NEIIRG#06
5.1	Reference Group members to self-nominate to participate in the NEMSR activity including nominating monitoring site collections for inclusion in the register	Ongoing	Complete
3.4	Murray Darling Basin Authority to provide advice on membership of the Basin Plan Implementation committee and extend an invitation to the NEII programme.	ASAP	Hold