

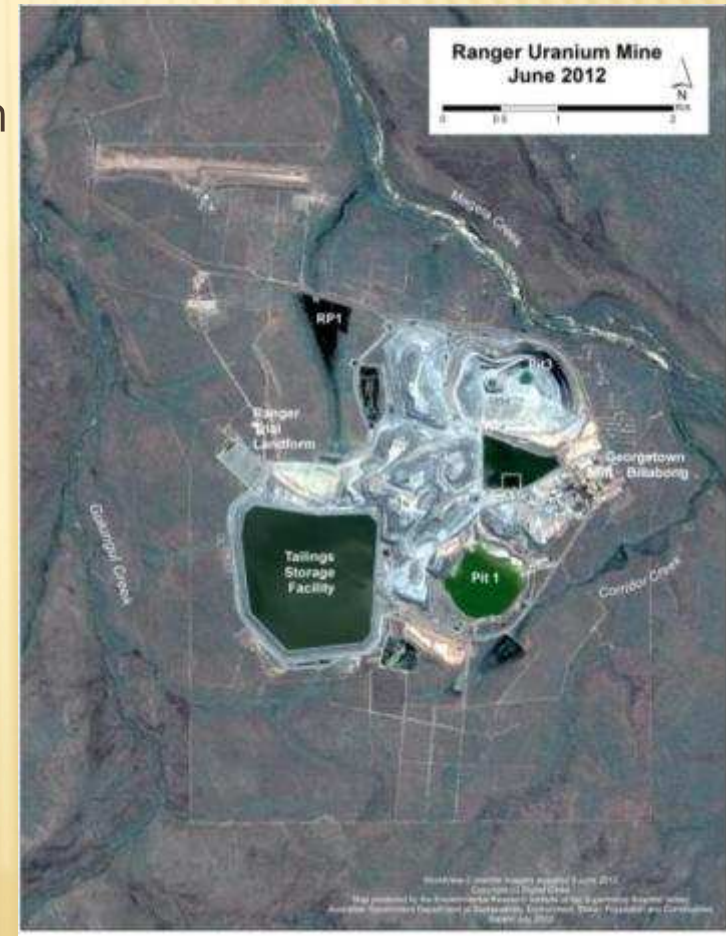
THE SOUTH PACIFIC ENVIRONMENTAL RADIOACTIVITY ASSOCIATION (SPERA)



Ongoing prioritisation within member organisations

ERISS – RADIOECOLOGY

- ✘ Focussing on NORM radioisotopes (U-series including Rn, RDP). Monitoring and Research
- ✘ ‘*Bushtucker*’ for the purpose of human ingestion dose assessment
 - + Remote region, traditional lifestyle
 - + 30 yrs+ of data for tropical environment
 - + Aquatic organisms -> mussels & fish
 - + Terrestrial organisms -> animals, fruit & veg
- ✘ Uptake studies (CR’s) & biological half-lives
- ✘ Radiation Protection of the Environment
- ✘ Legacy sites and remediation
- ✘ Contribution to national / international forums:
 - + ARPANSA: NHB Steering Committee & Safety Guide
 - + NHMRC: Site Closure Guide
 - + EMRAS I and II
 - + MODARIA Working Groups 3, 4 and 8
 - + Wildlife Transfer Database



ANSTO - RADIOECOLOGY & RADIOCHEMISTRY

- ✘ Institute for Environmental Research:
Nuclear Methods in Earth Systems
- ✘ Reconstructing the effects of human activity, climate variability and natural hazards on the Environment in the Australasian Region
 - + Radiochemistry
 - + Analytical Chemistry
 - + Sedimentology
 - + Paleoecology
- ✘ IAEA-ALMERA: rapid response to nuclear emergencies within SE Asia
- ✘ Fate and behaviour of radioactive contamination at sites such as Maralinga & Little Forest Burial ground
- ✘ Ecosystem transfer of radionuclides associated with U and/or Pu containing particles (hot particles)



ARPANSA – RADIOECOLOGY

NATIONAL ACTIVITIES

- ✘ Reviews of Environmental Protection approaches and existing radionuclide transfer data.
- ✘ Developing Australian guidance for Radiation Protection of the Environment
- ✘ Modelling and dose assessment for humans
 - Food basket study (Radioanalytical Services laboratory)
- ✘ Atmospheric Transport and Environmental Risk modelling
- ✘ Capability exercises and surveys for radio-analytical & radio-chemical laboratories in Australia
- ✘ Workshops: Radon exposures; ERICA tool



ARPANSA – RADIOECOLOGY

INTERNATIONAL ACTIVITIES

- ✘ Contribution to international agencies and working groups
 - + ICRP Committee 5 (Chair)
 - + IAEA:
 - ✘ EMRAS I and II, MODARIA Groups 3, 4 and 8;
 - ✘ IAEA-RCA Fukushima marine project
 - ✘ ALMERA Network
 - ✘ National Competent Authority / RANET
 - + WHO Collaborating Centre
 - + UNSCEAR (Chair)
 - ✘ UNSCEAR Fukushima Assessment
 - + NEA-OECD
 - ✘ Expert Group Radiological Protection Science
 - + ARGOS consortium
 - ✘ Atmospheric Transport Modelling



ENVIRONMENTAL RADIOACTIVITY LABORATORY

- ✘ Food certification service
- ✘ Drinking water assessments
- ✘ Impact assessments for industry
- ✘ Sedimentation studies
- ✘ Soil erosion studies
- ✘ Environmental monitoring

Current focus: setting up a marine monitoring programme & evaluating risk in using phosphate rock fertilisers





COMMON ISSUES & WAY FORWARD

- ✘ Common themes across SPERA
 - + Transfer of U and transuranics
 - ✘ Eriss/ARPANSA/ANSTO collaboration
 - + 'not-so-temperate' environments
 - ✘ Progress through ARPANSA/eriss/ANSTO collaboration
 - + Characterisation & remediation of legacy sites
 - ✘ ANSTO/eriss/ARPANSA collaboration
 - + Erosion studies
- ✘ Funding cuts
 - + Coordination of research programs and facilities
 - + How do we attract/include scientists from poorer countries in the region?



ARPANSA – FUTURE GOALS

- ✘ Strengthening cooperative work with other agencies and organisations nationally and internationally
 - + Establish work programs under MoUs and Cooperative Agreements
 - + Participation in ERICA consortium
- ✘ Enhanced coordination of Australian radiation protection research programs
- ✘ Enhanced coordination between professional communities in the region i.e. SPERA; ARPS; SETAC Australasia; Asian networks; others?
- ✘ **Longer Term Goal**
 - + Establishment of an Australian or Australasian Centre of Excellence for Radiation Protection and Environmental Radioactivity Research