



Australian Government
Australian Submarine Agency

Radiological Environmental Monitoring

s22

Director Radiological Controls and Coordination
Nuclear Stewardship

ASA

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AUKUS - Optimal Pathway (OP)

- Acquisition of conventionally-armed, nuclear-powered submarines (NPS) announced 14 Mar 2023
- Provides an assured capability that contributes to economic and regional stability in the Indo-Pacific
- 18-month consultation process
- OP designed to ensure a methodical safe and secure transition from conventional submarines to NPS

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PATHWAY TO AUSTRALIA'S NUCLEAR-POWERED SUBMARINE CAPABILITY

Phase I

Embeds and Industrial Workforce (From 2023)

Increasing Port Visits (From 2023)

SRF-West (As early as 2027)

Phase II

Australian Sovereign Ready (Early 2030s)

Australian Virginia Class Submarines

Phase III

Australian Shipyard Design and Construction (From 2023)

Construction of SSN-AUKUS (During the 2020s)

Collins Class Capability

Planned Delivery of UK's First SSN-AUKUS (Late 2030s)

Planned Delivery of Australia's First SSN-AUKUS (In early 2040s)



Stewardship Pathway

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Submarine Rotational Force – West (SRF-W)

- One UK Astute-class submarine and up to four US Virginia-class submarines (VCS) commence rotational presence from 2027

S 33 - security



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Environmental Baseline Monitoring (EBM)

- Rotation and maintenance of NPS at SRF-W from 2027 through 2033
- Requires environmental baseline contamination assessment of the SRF-W site
- Baseline will inform a continuous environmental monitoring programme
- Primary objective – sampling and analysis of contaminants and radionuclides across different media

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EBM – What will it achieve

- Environmental monitoring will address potential contaminant sources and pathways:
 - radiological (natural, anthropogenic)
 - reactor operation (radioactivity within coolant water, reactor core radionuclides)
- Receptors identified for monitoring will include environmental (water and marine biota) and human

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EBM – Types of samples

- **Environmental baseline conceptual site model, covers:**
 - External radiation
 - Atmospheric Particulate
 - Marine water
 - Sediment and soil
 - Flora and fauna
 - Periodic area monitoring

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Post EBM – ongoing monitoring

- EBM
 - Identify current radiation levels
 - Inform ongoing environmental radiation monitoring
 - s47E(a)&(b) – public access, picnic points, historical sites and Defence prohibited areas
 - Critical component of nuclear-powered submarine stewardship.



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Questions

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