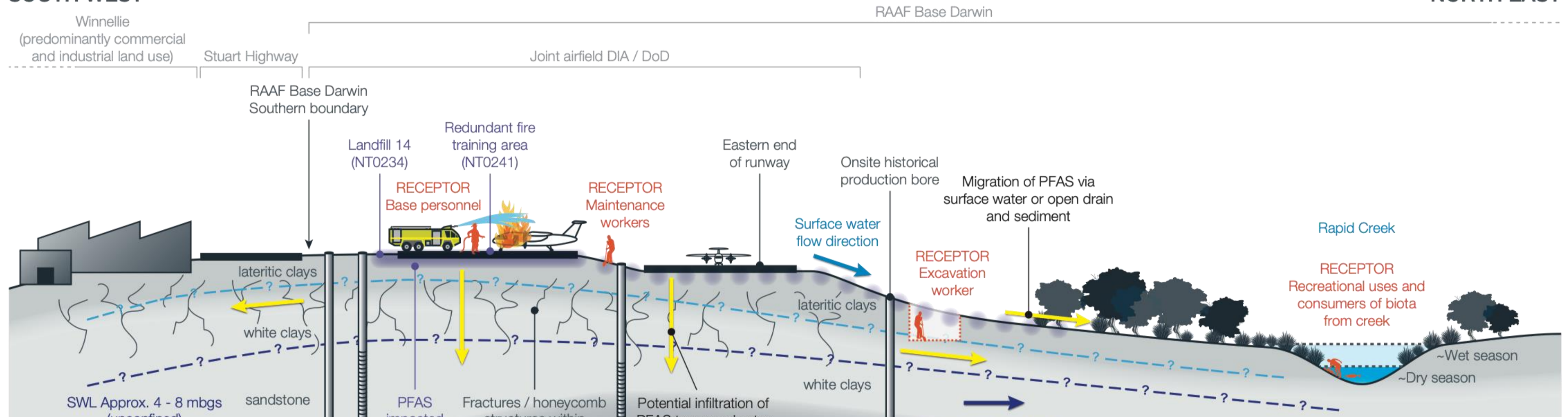




## How PFAS moves in the environment

SOUTH WEST

NORTH EAST



INDICATIVE LOCATION OF CONCEPTUAL CROSS SECTION

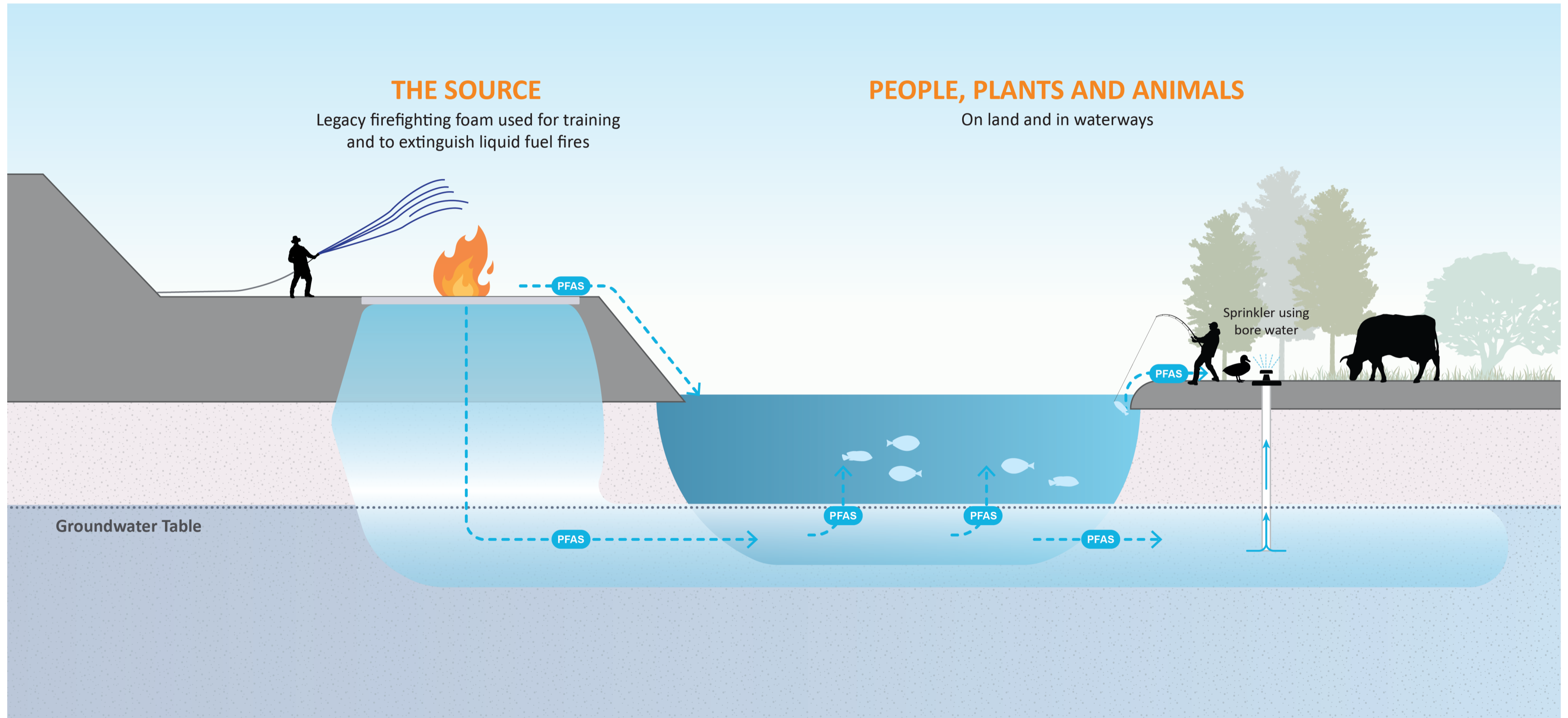


### LEGEND

- RAAF Base Darwin PFAS source and potential residue source areas
- Potential PFAS migration pathway
- Surface water movement
- Groundwater movement
- Approximate end of wet season standing water level (SWL)
- Approximate end of dry season standing water level (SWL)



## How does PFAS move in the environment?



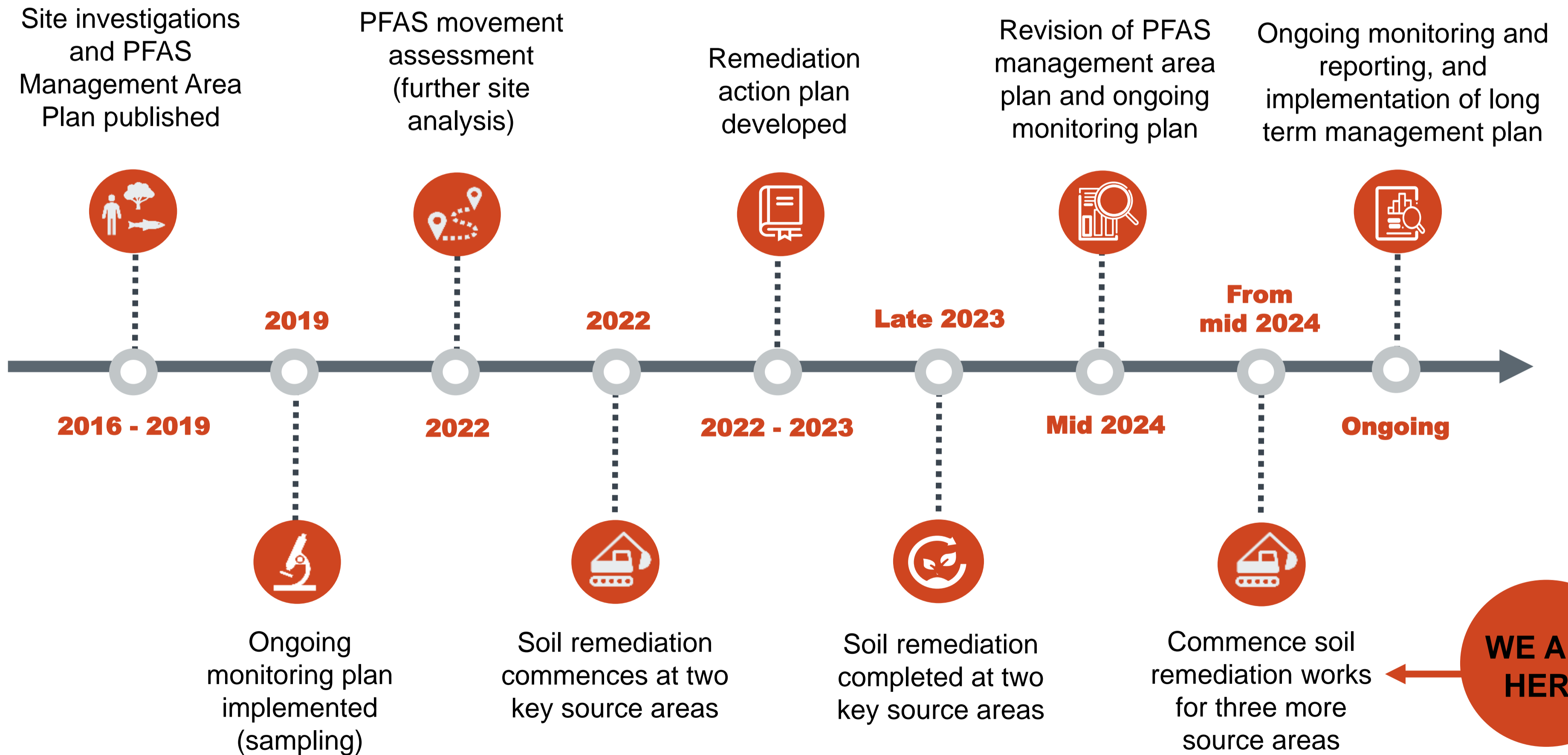
Historically, PFAS were used extensively worldwide in firefighting foams, including on Defence bases.

PFAS moves easily in the environment through surface water and via soil into groundwater.

PFAS can accumulate in the environment over time.



## RAAF Base Darwin – program timeline



**WE ARE  
HERE**



## RAAF Base Darwin – source areas



### Source areas

- PFAS source areas are found where firefighting foam was previously used, stored or disposed of.
- Defence identified 11 PFAS source areas.
- PFAS moves through surface water and groundwater to Rapid, Ludmilla, and Reichardt creeks.

### Remediation

- The aim of remediation is to minimise PFAS leaving the base by focusing on remediating source areas.
- Remediation of PFAS in soil and concrete is underway.
- Over time these works will contribute to the reduction of PFAS leaving the base.



## RAAF Base Darwin – remediation update

### Completed

- Remediation at former fuel farm (1) and the wrapped stockpile area
- Interim measures implemented at the current fire training area to reduce PFAS entering Rapid Creek.

### Underway

- Remediation for current fire training area, and former fuel farms (4 and 6) underway.
- Remediation plan for former fire training area 2 (on Darwin International Airport land).

### Planning

- Working with Darwin International Airport to remediate source areas at the airport.
- Minor source areas to be addressed as part of future development at RAAF Base Darwin.





## RAAF Base Darwin – latest ongoing monitoring findings



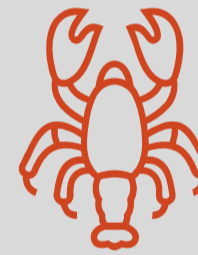
Ongoing monitoring is an important part of PFAS management and involves periodic sampling of groundwater, surface water and aquatic biota (water-based plants and animals).



The findings from the latest sampling results **do not** suggest a change in any potential exposure risks for the community.



Sampling data indicates high concentrations of PFAS at three source areas which are undergoing remediation in 2024-2025.



Residents should continue to follow NT Health's precautionary advice for fish, shellfish and crustaceans from Ludmilla Creek and Rapid Creek.



While generally stable, PFAS in some surface water locations on and off-base were above recreational water guidelines.

Defence will continue to monitor these locations to identify if any action needs to be taken.



The 2023-2024 ongoing monitoring report and factsheet are available to view on the Defence website.



## Next steps for RAAF Base Darwin

Review the PFAS management area plan to reflect remediation planning for other source areas



### Review of the PFAS management area plan and ongoing monitoring plan

Defence is currently revising the PFAS management area plan and the ongoing monitoring plan in line with remediation progress, ongoing monitoring results, and planned remediation activities.

#### Proposed changes include:

- additional on-base groundwater sampling locations to monitor the PFAS migrating from source areas, and
- additional surface water sampling locations within Rapid Creek and Ludmilla Creek to monitor PFAS coming from source areas.

Once completed, both revised plans will be available to download on the Defence website.

Commence soil remediation at three source areas



Continue ongoing monitoring of groundwater, surface water and aquatic biota

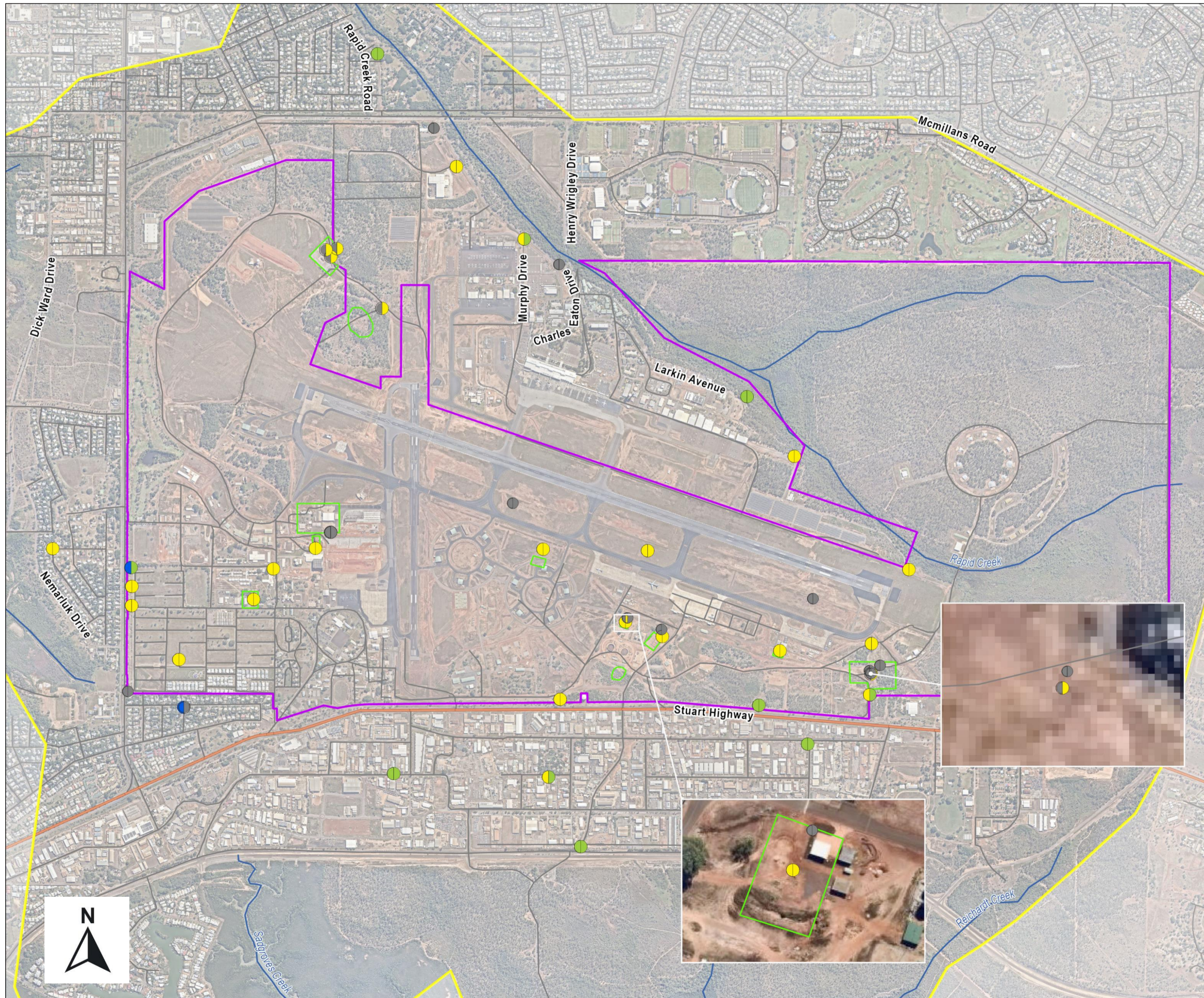


Publish the 2023-2024 Ongoing monitoring report and factsheet





## RAAF Base Darwin – groundwater monitoring results



**LEGEND**

- Stuart Highway
- Creek
- Base boundary
- Management Area
- PFAS source area
- Sampled in dry season (2023)
- Sampled in wet season (2024)
- Below drinking water guidelines
- Below recreational guidelines
- Exceeds drinking water and recreational water guidelines
- Not sampled

● Dry season sampling was impacted at some locations by dry monitoring wells, affecting our ability to take a suitable sample.

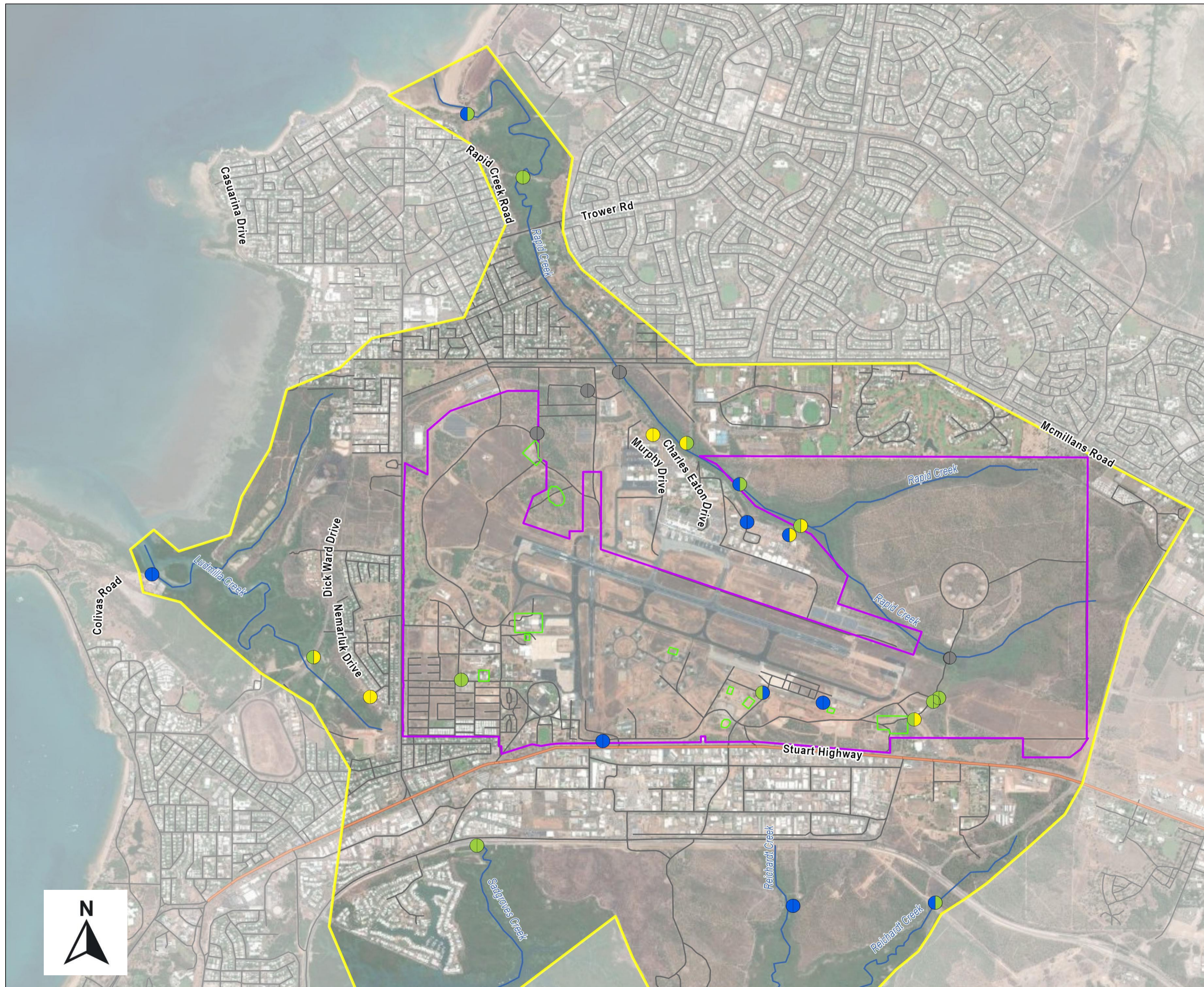
● Some well locations inaccessible owing to scheduled base works and/or weather conditions.

Refer to the latest ongoing monitoring findings poster for more information.





## RAAF Base Darwin – surface water monitoring results



**LEGEND**

- Stuart Highway
- Creek
- Base boundary
- Management Area
- PFAS source area
- Sampled in dry season (2023)
- Sampled in wet season (2024)
- Below drinking water guidelines
- Below recreational guidelines
- Exceeds drinking water and recreational water guidelines
- Not sampled

● Dry season sampling was impacted at some locations by dry monitoring wells, affecting our ability to take a suitable sample.

● Some well locations inaccessible owing to scheduled base works and/or weather conditions.

Refer to the latest ongoing monitoring findings poster for more information.



## RAAF Base Darwin – aquatic biota sampling



**Dark Green** - aquatic biota sampling locations

**Aquatic biota** refers to samples taken from water-based plants and animals.

Although there is no Commonwealth health criteria related to PFAS in aquatic biota, monitoring helps to inform Defence's remediation planning, and over time, monitor its effectiveness.

Samples are collected by the Northern Territory Department of Agriculture and Fisheries.

**Precautionary health advice** for wild caught fish, shellfish and crustaceans from the Ludmilla Creek and Rapid Creek remains in place.

For further information, please refer to the 'Fishing in Darwin creeks' factsheet.