Forest Monitoring and Improvement Program
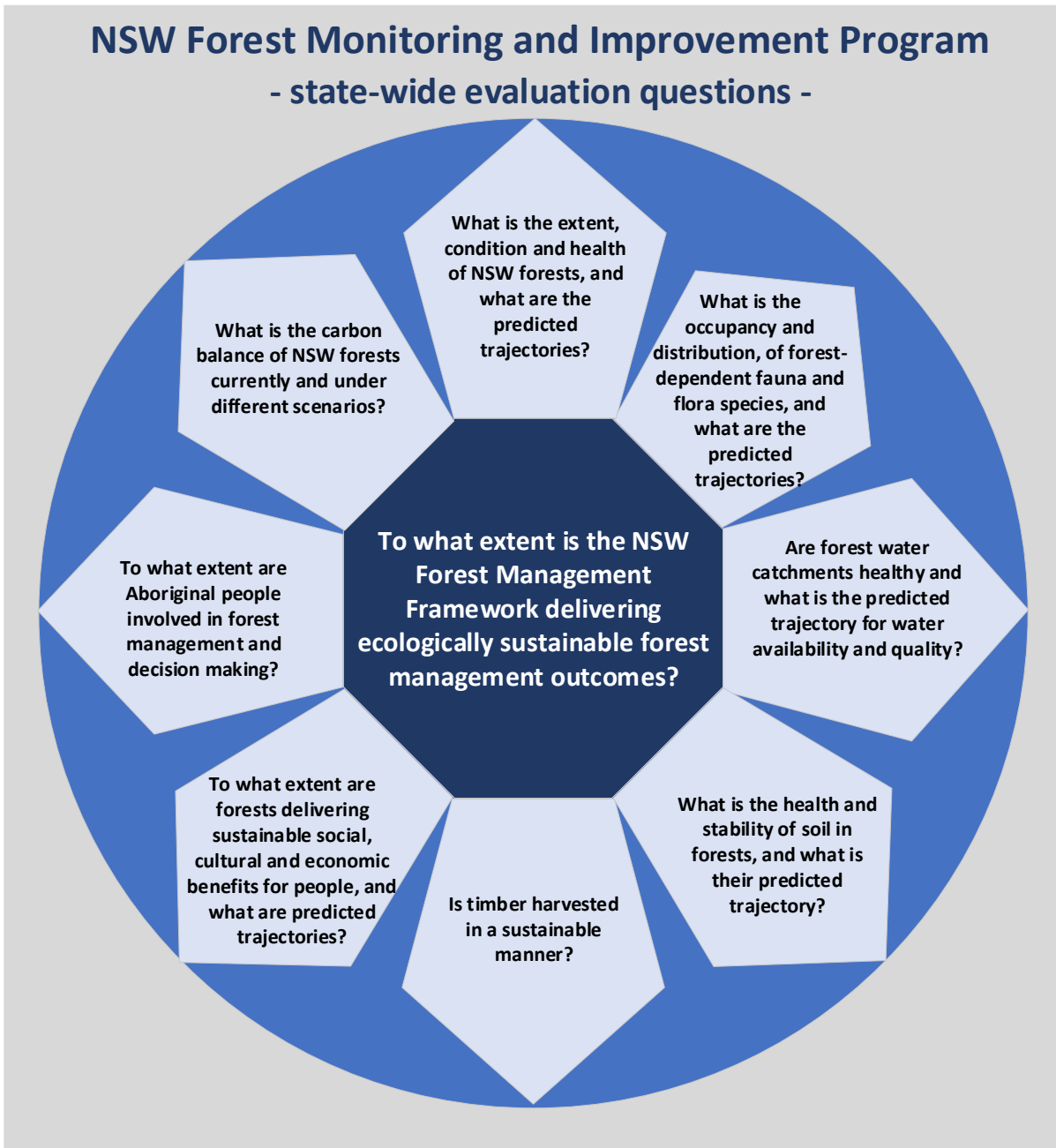
State-wide evaluation questions

- Information needs to be useful and timely for decision making about forest management and policy direction. Land managers typically want to know whether management is working (or not) to achieve the outcomes they are seeking.

- Other decisions are based around understanding what is changing and where are we heading. The answers to these questions typically end in – what do we do next?

- The Forest Monitoring and Improvement Program (the program) will focus on the needs of decision makers, stakeholders and the broader community in the ecologically sustainable management of NSW forests, and explicitly link these needs to monitoring, evaluation and research questions.

- A short paper describes how the questions were developed.

State-wide evaluation questions

- The NSW Government has committed to ecologically sustainable forest management across all tenures (i.e. national parks, state forests, crown land and private land) under the *NSW Forest Management Framework.*

- **The central question for this monitoring program is the extent to which the Forest Management Framework is delivering ecologically sustainable management outcomes for current and future generations.**

- The program will evaluate questions that cover the ecological, social, cultural and economic outcomes sought under the forest management framework.

- The program will evolve over time and respond to new information needs of decision makers. The steering committee is seeking ongoing feedback about the state-wide evaluation questions. Feedback will be explored at stakeholder annual forums

Approach to generate evidence

- The program will use a range of scientific and best practice approaches to generate evidence for each question – for example, retrospective and prospective analysis, research, effectiveness evaluations, remote sensing and field monitoring.

- For many questions, early work will likely focus on sourcing existing data and diagnosing drivers and trends to deliver results early in the program. Forecasting and scenario analysis will explore the predicted impacts of drivers and management response. Field monitoring can support modelling inputs and verify management performance.

- The program will use a wide range of existing data and expertise both inside and outside of the NSW Government. Research organisations and community organisations are expected to be partners in projects. All data will be made publicly available.

- The Commission, on behalf of the Steering Committee, will provide annual progress and insight reports to the NSW Government. The Commission will provide independent advice and recommendations to the NSW Government and agencies.

NSW Forest Monitoring and Improvement Program
- state-wide evaluation questions -

What is the extent, condition and health of NSW forests, and what are the predicted trajectories?

What is the occupancy and distribution, of forest-dependent fauna and flora species, and what are the predicted trajectories?

What is the carbon balance of NSW forests currently and under different scenarios?

To what extent is the NSW Forest Management Framework delivering ecologically sustainable forest management outcomes?

Are forest water catchments healthy and what is the predicted trajectory for water availability and quality?

To what extent are Aboriginal people involved in forest management and decision making?

What is the health and stability of soil in forests, and what is their predicted trajectory?

To what extent are forests delivering sustainable social, cultural and economic benefits for people, and what are predicted trajectories?

Is timber harvested in a sustainable manner?

State-wide evaluation questions

1. What is the extent, condition and health of NSW forests, and what are the predicted trajectories?

Focus areas:

- analysing historical data and information to examine drivers and impacts, including wildfire, drought and climate change on current and predicted forest extent, conditions and health

- simulating and forecasting future scenarios and outcomes

- monitoring key metrics to test and track thresholds, benchmarks and forecasted outcomes

- analysing the actual, or likely effectiveness or impact of adaptation and management regimes to promote forest resilience under forecasted scenarios.

2. What is the occupancy and distribution of forest-dependent fauna and flora species, and what are the predicted trajectories?

Focus areas:

- determining a scientifically priority suite of forest-dependent fauna and flora species

- analysing historical data and drivers on forest-dependent fauna and flora distribution and occupancy simulating and forecasting fauna and flora occupancy and distribution under future scenarios

- monitoring key metrics to test and track thresholds, benchmarks and forecasted outcomes.

3. Are forest water catchments healthy and what is the predicted trajectory for water availability and quality?

Focus areas:

- analysing historical data to examine drivers and impacts, including wildfire and drought on current and predicted water availability and quality in forest catchments

- evaluating the effectiveness of forest management practices and standards to maintain water quality and aquatic biodiversity

- simulating and forecasting water quality and quantity under future scenarios

- monitoring key metrics to test and track thresholds, benchmarks and forecasted outcomes.

4. What is the health and stability of soil in forests, and what is their predicted trajectory?

Focus areas:

- evaluating the effectiveness of forest management practices, including the road network to minimise soil erosion and health in high risk areas

- simulating and forecasting soil health and stability under future scenarios

- monitoring key metrics to test and track thresholds, benchmarks and forecasted outcomes.

5. Is timber harvested in a sustainable manner?

Focus areas:

- verifying the volume, quality and trend of native and plantation timber harvested annually on state forests, relative to predicted sustainable wood supply

- analysing the effectiveness of the IFOA conditions to meet objectives and outcomes

- analysing the effectiveness of Private Native Forestry Codes of Practice in providing for regeneration

- analysing the potential impacts of fires, droughts, forest dieback and climate change or other risks to sustainable timber and forest ecosystems.

6. To what extent are forests delivering sustainable social, cultural and economic benefits for people, and what are predicted trajectories?

Focus areas:

- analysing the contribution of forests to people's health and social well-being

- analysing the contribution of forest-based industries to local, regional and state social and economic well-being

- analysing emerging and developing industries and markets that deliver socio-economic benefits to forested regions

- simulating and forecasting socio-economic scenarios and outcomes under future scenarios.

7. To what extent are Aboriginal values, knowledge and people involved in forest management and decision making?[1]

Focus areas:

– Aboriginal-led, Country-based assessment, monitoring, and research to support:

   o developing methods to assess and protect Aboriginal forest access, values, uses and rights across tenures

   o assessing wildfire impacts on Aboriginal values

   o participating and leading forest management and ownership

   o integrating Aboriginal ecological and cultural knowledge in forest management.

   o identifying forest-related economic development opportunities, employment, education, training.

8. What is the carbon balance of NSW forests currently and under different scenarios?

Focus areas:

- simulating and forecasting the contribution of NSW forests to the global carbon cycle; and opportunities to enhance carbon storage in forest.

9. To what extent is the NSW Forest Management Framework delivering ESFM outcomes?

Focus areas:

- analysing and evaluating whether legislative and regulatory settings are efficient, outcomes focused and reflective of good-practice such as risk-based approaches

- analysing and evaluating the coordination of state and regional forest management matters, including opportunities to coordinate shared services, research and community engagement, and the collection of reporting information

- analysing and evaluating CAR outcomes and JANIS targets

- analysing and evaluating the level and sufficiency of investment for effective forest management

- investigating emerging frameworks to integrate and report environmental and economic information.

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[1] All work under this evaluation question will consider and align with the *NSW Aboriginal Cultural and Intellectual Property Protocol*. The approach will promote co-design and Aboriginal leadership in governance, program management and delivery