



The Second National Earth Observation Assessment (EOA 2016)

Timothy Stryker
USGEO Program Director
NSTC/OSTP

Subcommittee for Disaster Reduction
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Background

- **NASA Authorization Act of 2010**
 - Provided congressional instruction to develop a triennially updated strategic implementation plan to “ensure greater coordination of the research, operations, and activities relating to civilian Earth observation...”
- **National Strategy for Civil Earth Observations (2013)**
 - Established a triennial assessment of civilian Earth observations in 13 societal benefit areas (SBAs)

Agriculture & Forestry

Energy & Mineral Resources

Transportation

Biodiversity

Human Health

Water Resources

Climate

Ocean & Coastal Resources & Ecosystems

Weather

Disasters

Space Weather

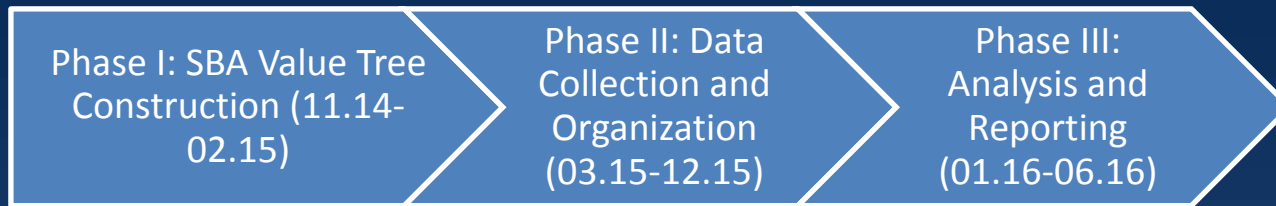
Reference Measurements

Ecosystems (Terr. & Freshwater)



EOA 2016 Overview

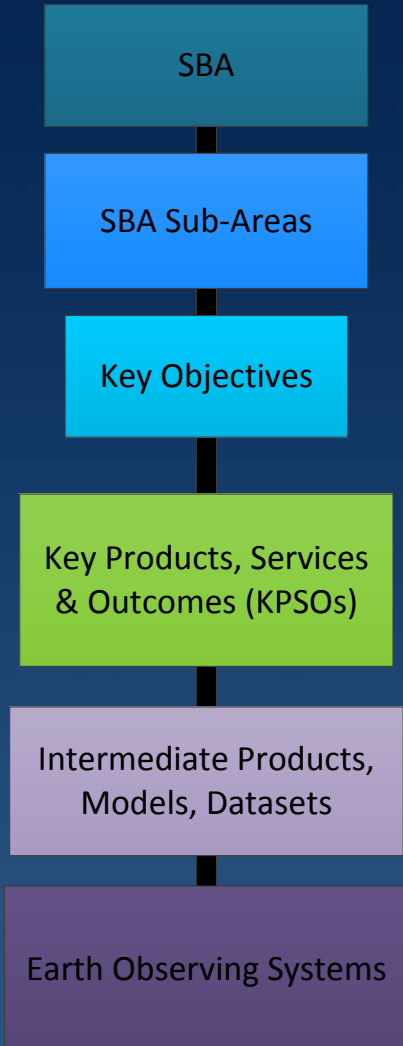
- The second National Earth Observation Assessment (EOA 2016) is proposed to be *delivered in June 2016*



- EOA 2016 will:
 - Assess the current portfolio of Earth observing systems that provide measurements, data, and information that support Federal activities
 - Use the SBA framework to provide a cross-cutting view
 - Provide greater detail regarding the specific uses of Earth observing data in delivering societal benefit
 - Include expanded consideration of research priorities and future needs in addition to existing systems



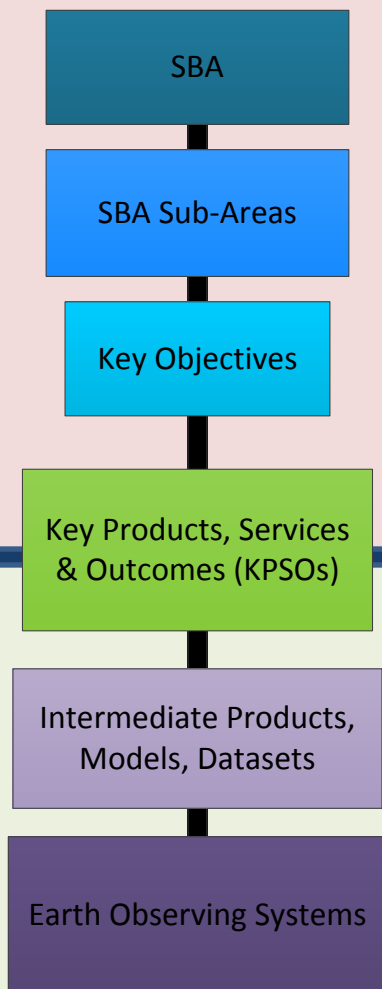
Phase I: SBA Value Tree Construction



- The SBA value tree is a hierarchical framework that establishes the connection from top-level societal benefits to the set of observing systems that contribute to the SBA
 - Intermediate levels provide a logical traceability
- Goal is to make the connection between Earth observations and the value they provide (Societal Benefit delivered)
 - e.g. The National Weather Service is not funded to “measure precipitation and wind speed”, they are funded to “provide advance warning of severe weather to save lives.”



SBA Value Tree Construction (cont'd)



The Top of the Value Tree: Defined by the SBA Teams

- SBA Teams are responsible for defining all the major elements of the value tree through KPSOs
- SBA Teams define and weight the elements of the value tree
- SBA Teams identify the KPSOs relevant to each of their Key Objectives help to guide Assessment Team engagement and the collection of supporting data

The Bottom of the Value Tree: Data collected from Agencies by the Assessment Team

- The Assessment Team will engage subject matter experts identified by the SBA Teams to complete the bottom of the value tree
- The teams will identify and evaluate the Earth observation data used to produce the KPSOs

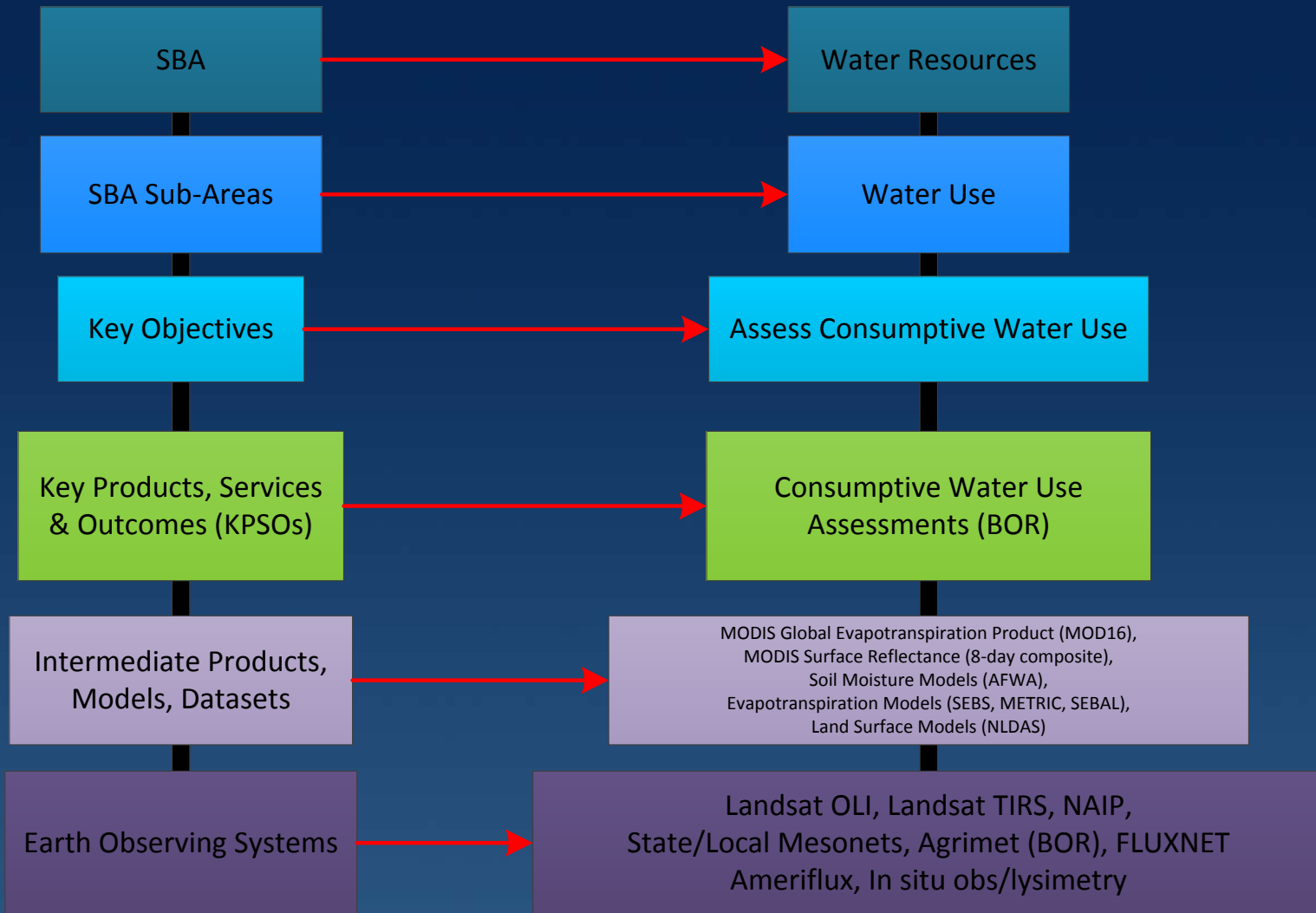


Lessons Learned from EOA 2012

- More robust agency representation on SBA Teams; strategies to mitigate gaps
 - Split responsibilities for constructing and evaluating the value tree between the SBA Teams and SMEs within the agencies
- SBA Teams define and weight the elements of the value tree
 - Senior interagency perspectives
- Evaluation of KPSOs requires the expertise of those at the user/practitioner level who routinely use Earth observations to deliver products, services, and outcomes within their organization



SBA Value Tree Example



EOA 2016 Deliverable

- Final assessment will include:
 - A summary of the current national observing system portfolio
 - A baseline assessment of the current portfolio, tiered by relative criticality, for individual SBAs and an overall integrated assessment
 - A recommended portfolio of measurement categories, tiered by relative criticality over a 10-year planning horizon, for individual SBAs and the overall government

