

**NOAA**  
**FISHERIES**

**Greater Atlantic Regional  
Fisheries Office**

# Current & Expected Data Needs NMFS and External Users

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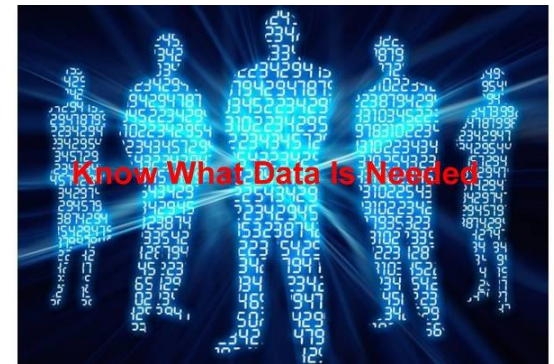
July 1, 2014



Source: <http://e27.co/wp-content/uploads/2013/09/Big-data-ocean.jpg>

# Current Data Needs

1. Identified needs broken down into fundamental elements
2. Separated individual components
  - Catch separated from area
  - Landings separated from discards
3. Removed association with collection mechanism
  - Landing amount, not *dealer* landings
  - Discard amount, not *observed* discards
4. Identified related data needs
  - Landings/discards by species & area
  - Length & age by area
  - Species interactions by area & gear



Source: [www.jobscience.com](http://www.jobscience.com)

# Current Data Needs

- Vessel, dealer, operator, owner
- Species ID (target/caught)
- Total catch
  - Landed amount/species
  - Amount unsold/species
  - Discarded amount/species
- Fishing location
  - General (stat area)
  - Precise (tow start/end)
- Gear used
  - Type
  - Modifications
  - Number of nets deployed
  - Number of tows/sets
- FMP & exemption/program
- Trip start & end date & time
- Offload date
- Fishing time
  - Average
  - Per tow/set
- Vessel economics
  - Operating costs
  - Price per lb
- Allocation
  - Quota (individual, FMP, sector)
  - DAS

# Future Data Needs

- Finer resolution spatial data
- More detailed gear information
- Oceanographic information
  - Bottom temperature
  - Salinity
  - Dissolved oxygen
- Habitat characteristics and depth
- Imagery data (for validating EM)
- Fine-scale data that can be rolled-up to higher levels
- Data about data (data dictionary, glossary, catalog)



Source: [www.blog.scribsoft.com](http://www.blog.scribsoft.com)

# Desired Data Resolution

## At what level (resolution) *should* the data be collected?

- Per set/haul, area fished, gear used, FMP, or trip
- Depends on data element (need) and use
  - Haul-by-haul catch may be needed for by-catch monitoring
  - Trip-level operator is needed for compliance enforcement
- Determines accuracy and precision of data products
  - Haul-by-haul data collection is most accurate and precise
  - FMP-level data collection may be adequate for some uses
- Not relevant for all needs and uses

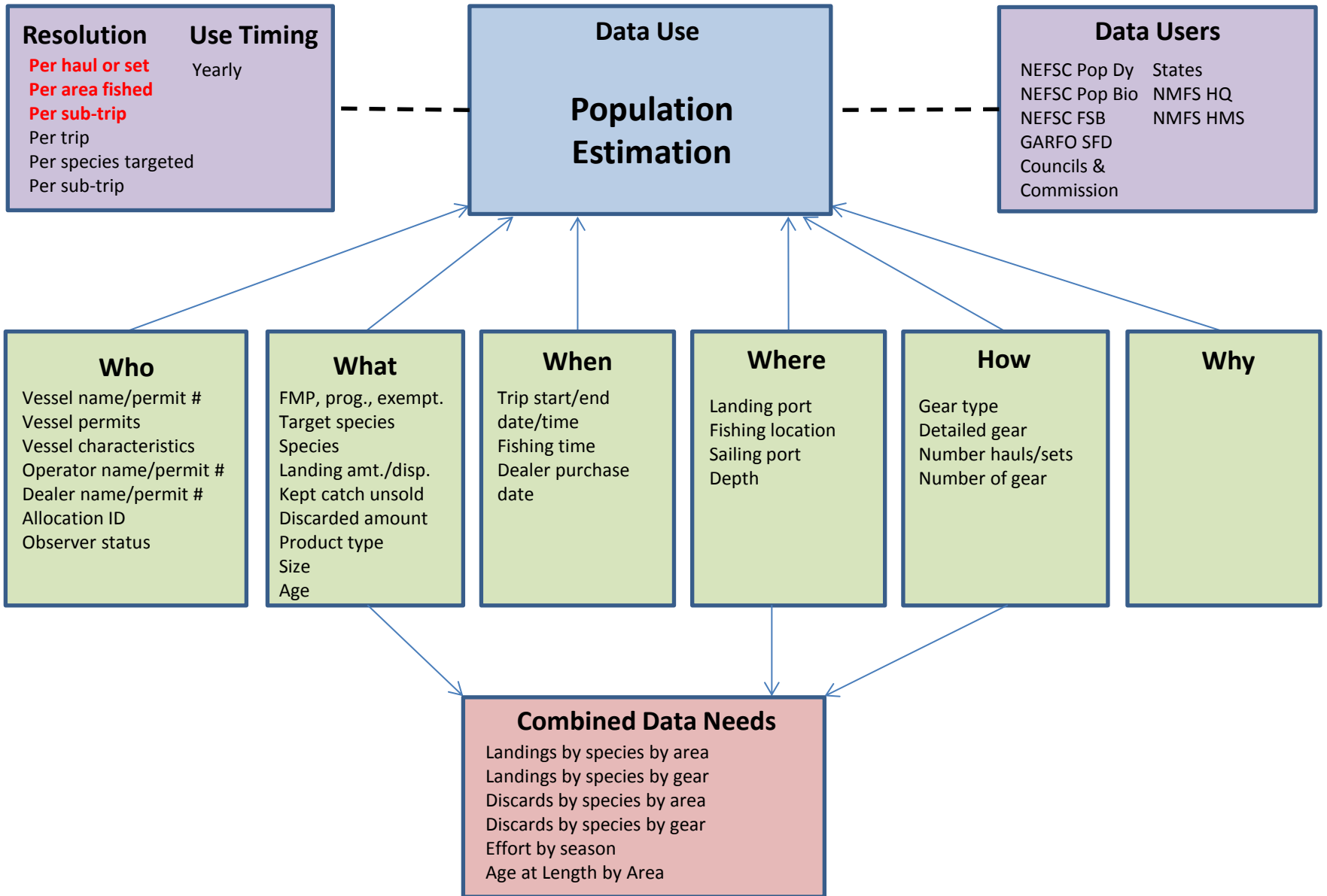
# Desired Collection/Submission Frequency

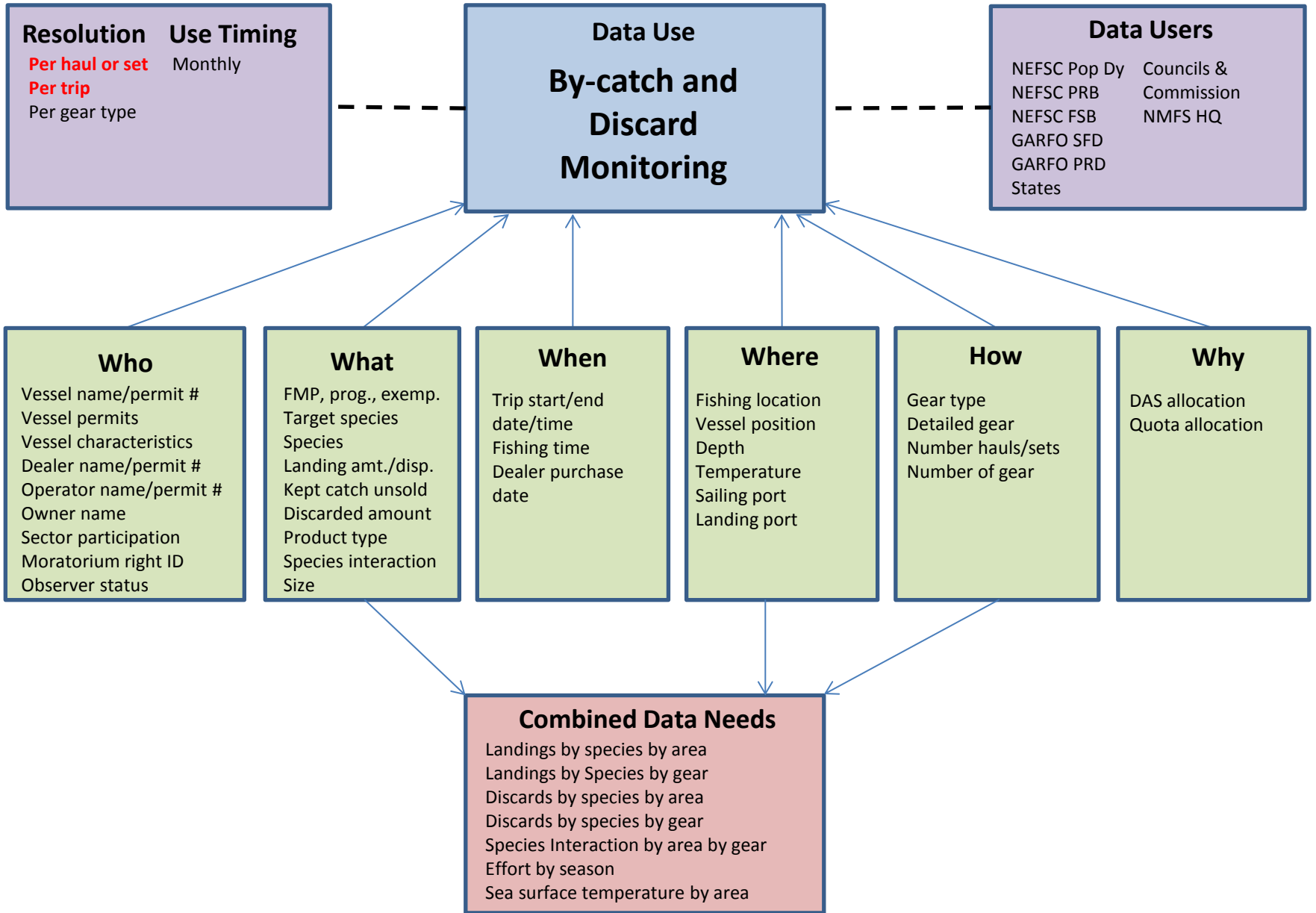
## When *should* data be collected or submitted?

- Per hour, haul, day, trip, offload, week, month, or year
- Affects data collection and submission mechanism (tool)
- Depends on data element (need) and use
  - Haul-by-haul discards needed for by-catch monitoring
  - Yearly permit issuance needed for compliance enforcement
- Impacts burden on industry
- Data may not be available at desired frequency

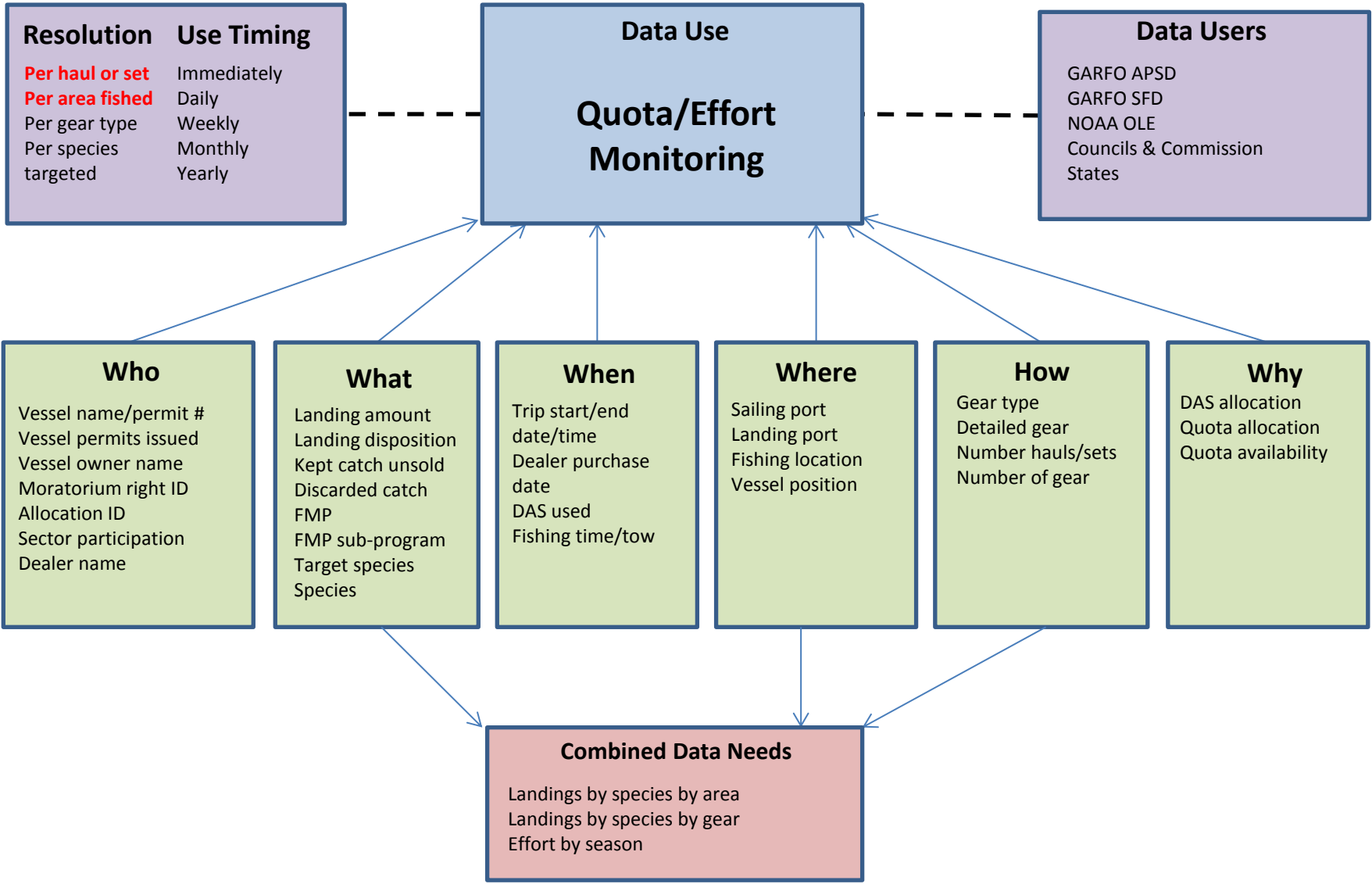


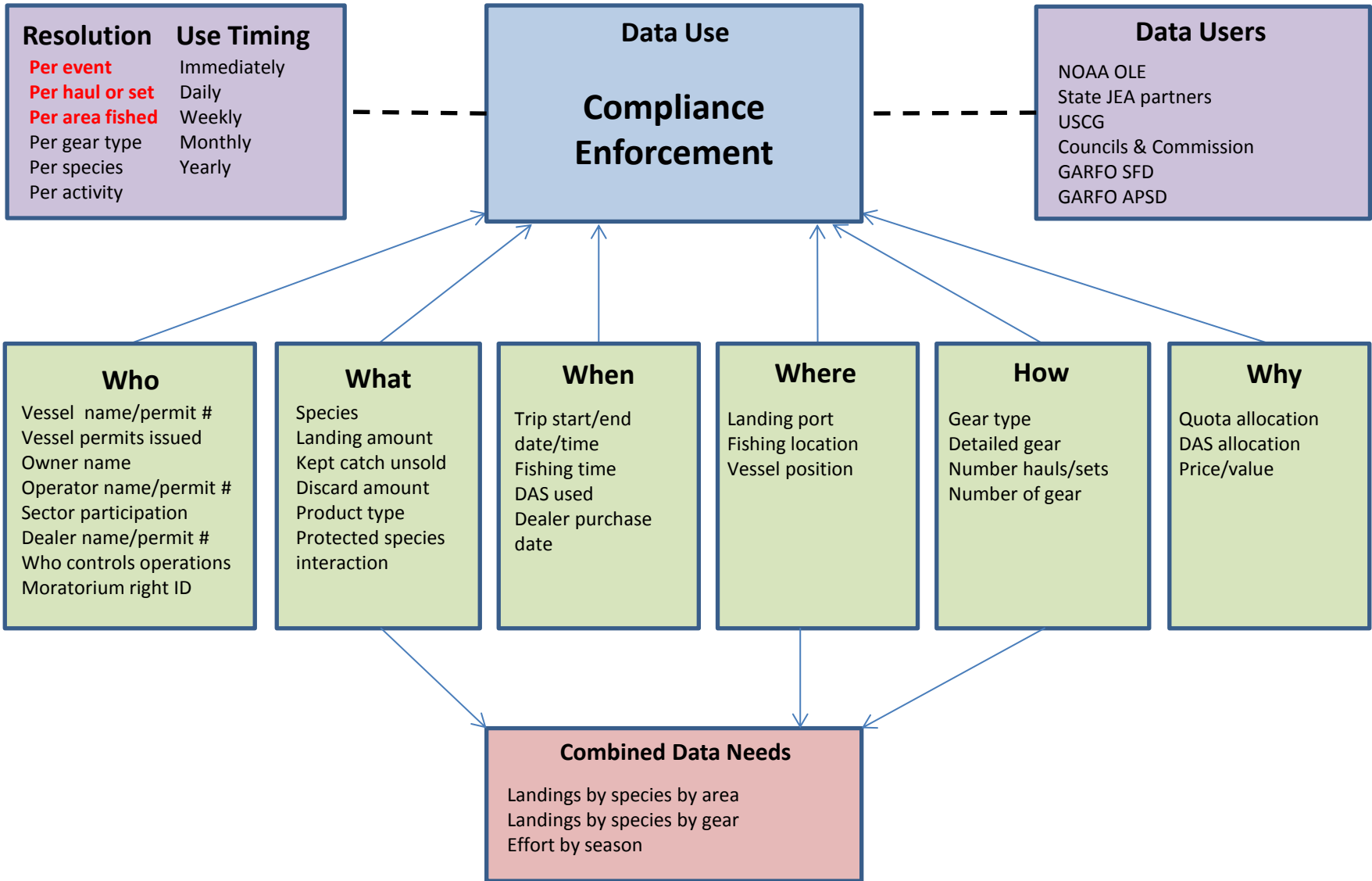
Source: [www.nyceducator.com](http://www.nyceducator.com)

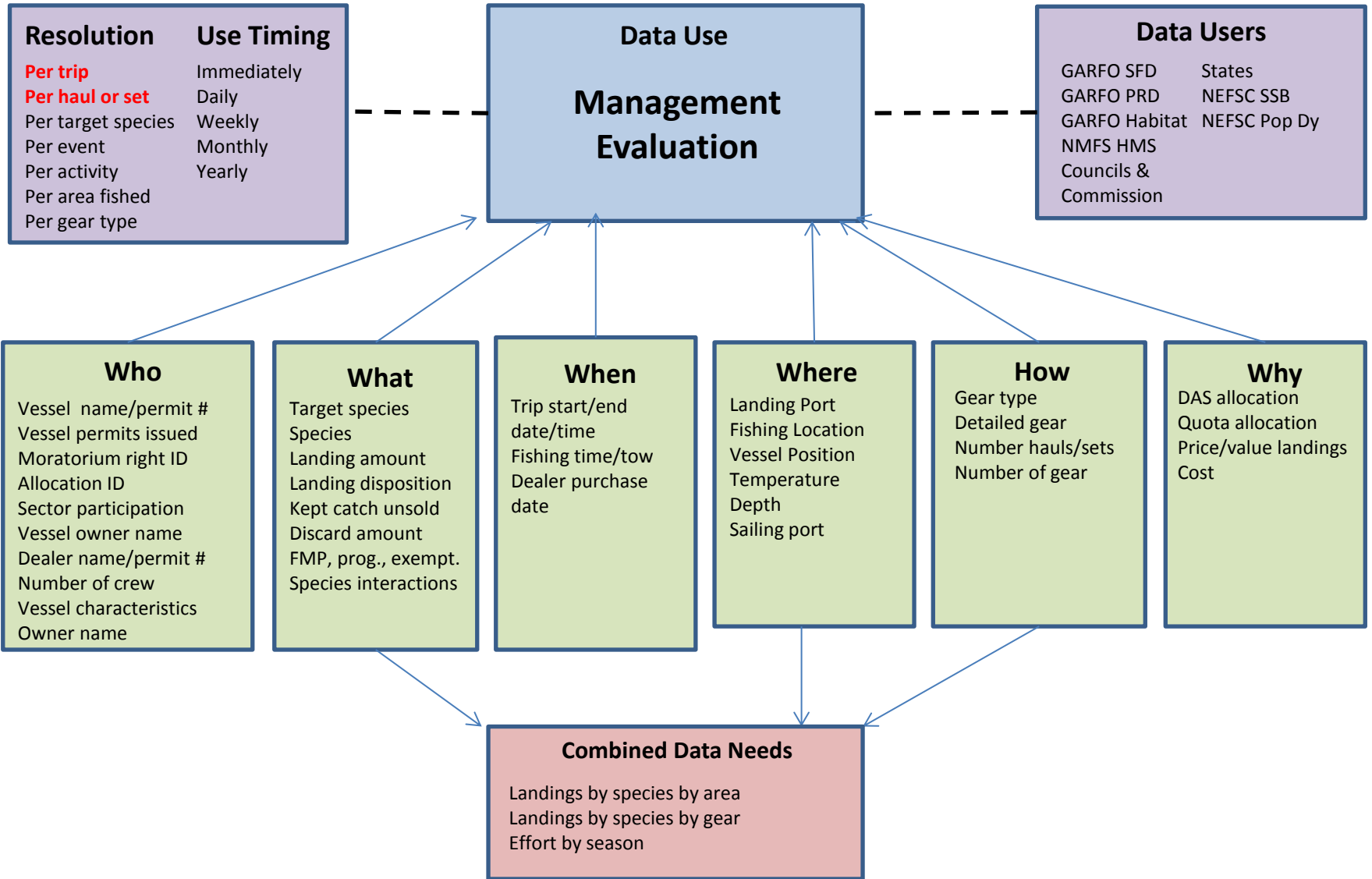












# Data Availability

## When are data *ACTUALLY* available?

- When do you know it, and when can you submit it?
- Can you provide the data when it is needed?
- Can you provide the data at the resolution needed?
- Integrate data availability with resolution and frequency:
  - Improves accuracy & precision
  - Reduces industry burden
  - Increases reliability of data



Source: [www.bulletproofalent.com](http://www.bulletproofalent.com)