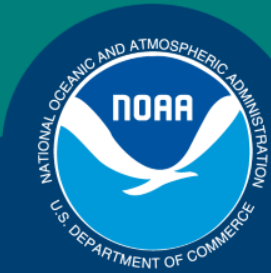


*Science, Service, Stewardship*



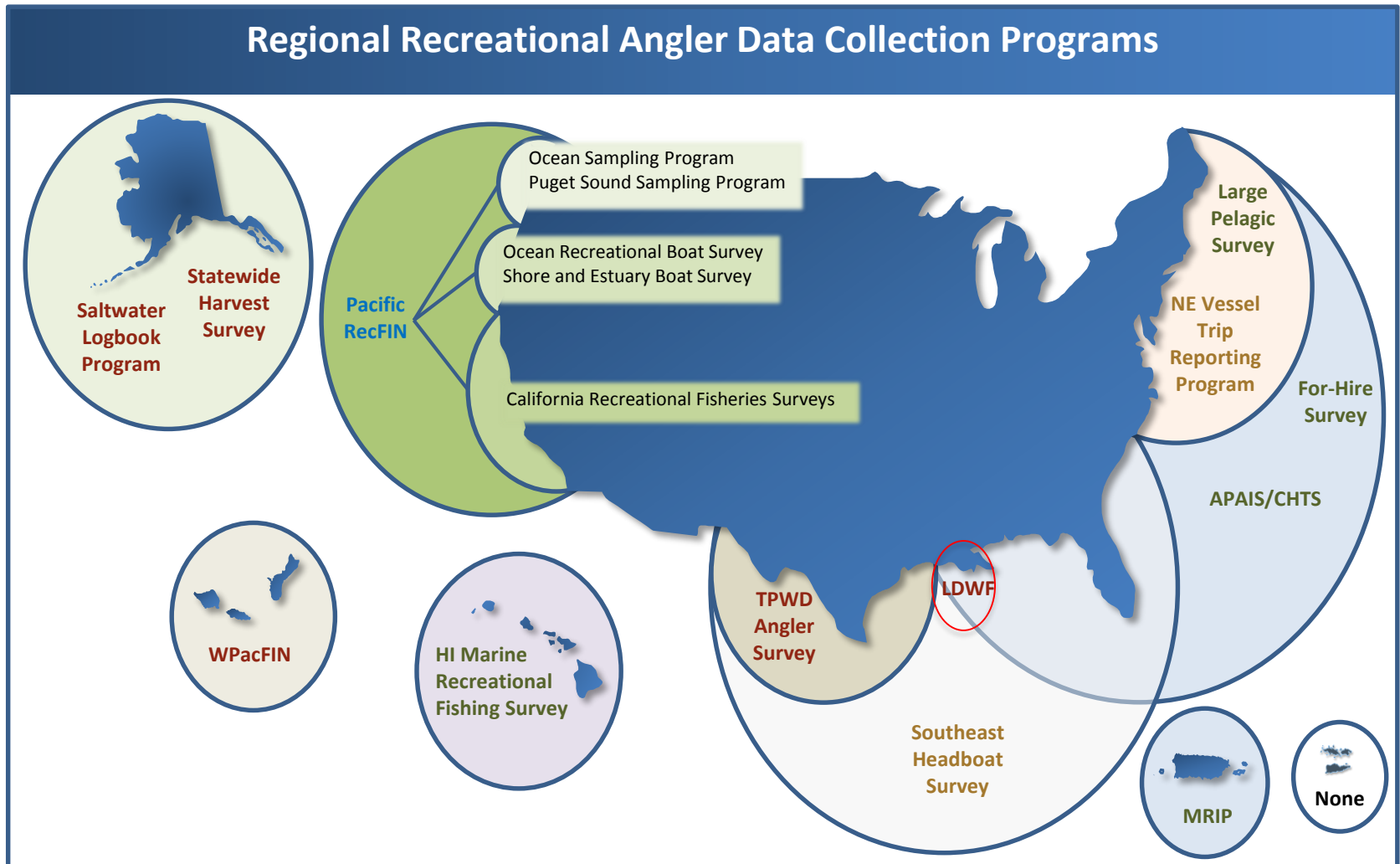
# Data Precision: MRIP Perspective

Gordon Colvin, ECS-Federal, Inc.  
In support of NOAA Fisheries, MRIP  
ACCSP Recreational PSE Workshop  
September 23, 2014

**NOAA  
FISHERIES  
SERVICE**

NOAA

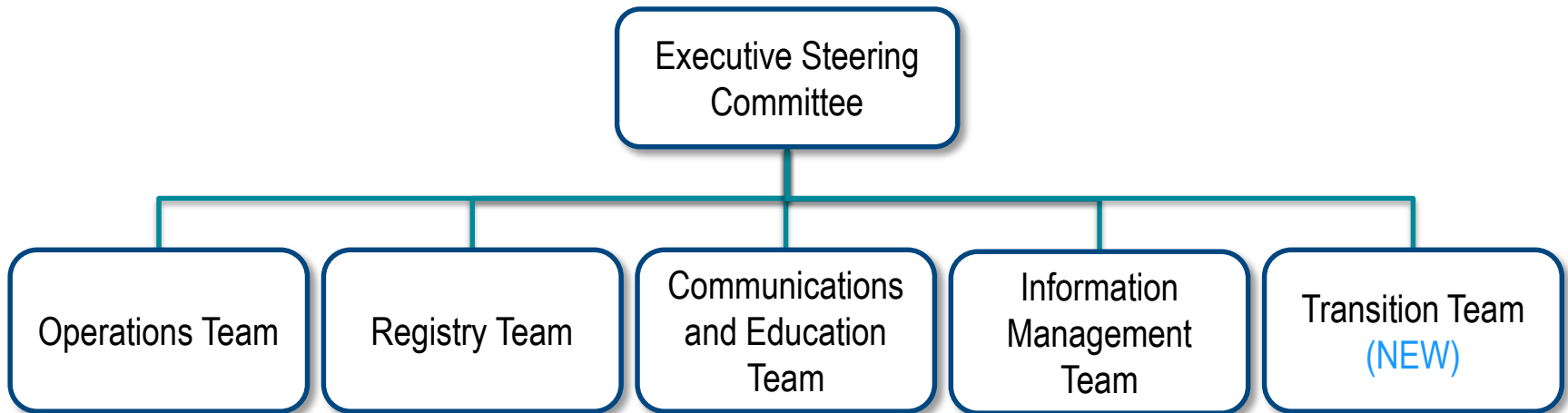
# Recreational Fishing Surveys



# MRIP Approach



- Stakeholder-inclusive governance and team leadership



- Deliberate, well-articulated process



- Regional implementation

# Implementation Strategy

## Marine Recreational Information Program, Executive Steering Committee Implementation Workshop: 16-17 July 2013, Baltimore, MD

### Key Outcomes:

- ESC to continue program overview as MRIP transitions from research and development to implementation: National Implementation Team
- FINs and their equivalents (i.e., ACCSP): Regional MRIP Implementation teams
- MRIP priorities for investment of resources for expanded survey implementation to be guided by whether the survey
  - Utilizes a MRIP-certified survey design or methodology;
  - Conforms to the current MRIP standards for survey coverage and basic data elements and any additional national standards or best practices that the MRIP may adopt in the future;
  - Provides catch estimates for fisheries managed under MSRA (including Atlantic HMS or jointly by the states and NMFS) that are deemed by the MRIP regional implementation team to provide recreational catch statistics sufficient to:
    - Complete generally reliable stock assessments;
    - Support development of annual catch limits that meet MSRA requirements; and
    - Support development of recreational regulations that minimize triggering of accountability measures.

# Roles and Responsibilities

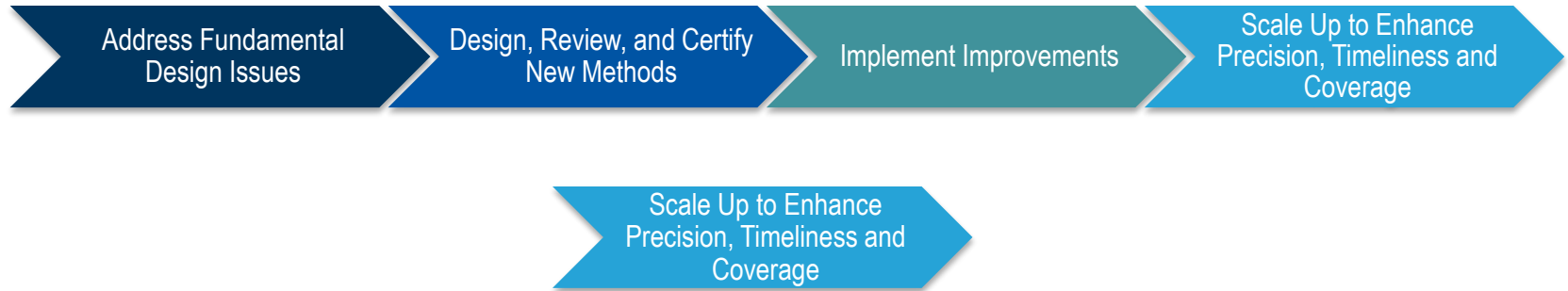
<b>MRIP National Team (ESC and Teams)</b>	<ul style="list-style-type: none"> <li>▪ Develop and conduct pilot studies</li> <li>▪ Manage peer reviews</li> <li>▪ Identify and recommend national standards/best practices</li> <li>▪ Facilitate regional implementation</li> <li>▪ Manage implementation (certain regions)</li> <li>▪ Recommend funding priorities</li> </ul>
<b>NOAA Fisheries</b>	<ul style="list-style-type: none"> <li>▪ Certify best practices for use by regional partners</li> <li>▪ Funding decisions</li> </ul>
<b>Regional Implementation Teams (FINs)</b>	<ul style="list-style-type: none"> <li>▪ Identify region-specific data needs and priorities, including investment priorities for enhanced timeliness, precision, coverage, special needs</li> <li>▪ Establish and maintain regional standards</li> <li>▪ Choose and adapt certified methods to meet regional needs, and, as necessary, assist in securing additional resources</li> <li>▪ Manage implementation</li> </ul>
<b>Stakeholders</b>	<ul style="list-style-type: none"> <li>▪ Work with MRIP team to identify research needs and, as appropriate, lead or participate in pilot studies</li> <li>▪ Work with regional partners to identify data needs and priorities, and, as appropriate, support efforts to acquire resources</li> </ul>

# Regional Implementation



- 2012: Completed and commenced use of new weighted estimation method
  - Re-estimated catch for 2004 – 2011
  - Calibration method developed for earlier years
- 2013: New Access Point Angler Intercept Survey design implemented
- 2014: Fishing Effort Mail Survey pilot project completed: decisions pending on implementation in 2015 and beyond
- Ongoing: Projects testing designs for for-hire trip reporting that include independent validation methods

# Regional Implementation



- Potential expansion of coverage: area, time, species. Examples: MRIP project to study survey to add invertebrates managed under the Magnuson-Stevens Act in Puerto Rico; MRIP Mid-Atlantic Council project to evaluate Wave 1 sampling; projects to explore expansion of LPS beyond VA-ME.
- Improvement in timeliness of preliminary estimate availability. Examples: MRIP 2011 workshop explored methods; several MRIP projects have developed electronic reporting methods.
- Increased precision of estimates (increasing sample size).
- Evaluating tradeoffs. Application of simulation model work being done at CSU.
- Special needs surveys. Gulf red snapper workshops and pilot projects; HMS projects.

# Atlantic Atlantic Coastal Cooperative Statistics Program Targets (updated, 2012)

Subject	Old Standard	New Standard	Comments & MRIP Coordination
<b>Coverage: seasonality</b>	Per MRFSS: 6 waves, FL only; 5 waves GA – MA; 4 waves NH-ME	6 waves FL – MD; evaluate need for wave 1 in DE – MA every 5 <sup>th</sup> year; 5 waves DE - ME	Cost implications and tradeoff evaluation needed.
<b>Coverage: geographic</b>	Per MRFSS: tidal waters covering major coastal bays, but not tidal rivers.	Upstream to state freshwater/saltwater boundary.	May need to expand site registries to cover. Cost implications and tradeoff evaluation needed.
<b>Sampling frequency; data availability</b>	Per MRFSS: 2 month waves; preliminary estimates 45 days following end of wave	1 month waves; preliminary estimates 30 – 38 days following end of wave	Cost implications and tradeoff evaluation needed. MRIP is developing a simulation model project that can facilitate quantitative evaluation of tradeoffs among timeliness, precision and cost. Revisit standard when evaluation completed?
<b>Geographic stratification &amp; domain estimation</b>	Per MRFSS: surveys stratified by state	Retain state strata. Add pre-stratification for states which contain major natural boundaries (MA; MD/VA; NC; FL)	MRIP has funded pilot projects to design stratification for FL and MD. In addition, the new MRIP estimation methodology enables sub-state domain estimation at the partner level.



# Atlantic Atlantic Coastal Cooperative Statistics Program Targets (updated, 2012)

Subject	Old Standard	New Standard	Comments & MRIP Coordination
Effort data collection (shore and private boat modes)	Standard is MRFSS CHTS	Provides for use of registries in single or multi-frame telephone or mail mode survey approach.	Standard is compatible with designs MRIP is piloting in 2012 - 2014. Need to re-visit following completion of effort pilots and certification of new effort designs.
For-hire survey design	Standard is MRFSS Intercept Survey and FHS	Provides flexibility for use of census approaches when specified conditions have been met.	Should be re-visited as MRIP pilot projects (for the Gulf Charter and SEHBS) are completed. New NC project for 2015 will test a design adapted from the findings of the Gulf Charter pilot.
Precision of estimates	PSE of 10% by (high priority)species/state/year for catch and 15% by (high priority) species/state/year for harvest. For shorter harvest periods, PSE of 20%. Catch or total harvest estimates should be used for management only when PSE is 20% or less.	<b><u>Deferred pending MRIP-supported workshop in 2014</u></b>	MRIP's new intercept survey design and estimation methods corrected significant historic over-estimation of precision. Expanding sample sizes will improve precision using the new methods. Cost implications and tradeoff evaluation needed. MRIP is developing a simulation model that can facilitate quantitative evaluation of tradeoffs among timeliness, precision and cost. It was appropriate to defer adoption of a standard (target) and consideration of funding significant sample size increases until the workshop.

# Questions?



# Implementation Strategy

Element	ESC	Regions
Assuring surveys adhere to certification methods	Certifications	X
Operational requirements <ul style="list-style-type: none"> <li>• Develop/certify data collection design</li> <li>• Data collection approval</li> <li>• Procurement/Grant management</li> <li>• Survey operations and oversight</li> <li>• Information management</li> <li>• Research and Development</li> <li>• Compliance/Enforcement</li> <li>• Outreach/Communications</li> </ul>	X  X QA/QC Stds. Standards X  Resources	Choices X X X X Input X X
Choosing among methods		X
Choosing among options for coverage-timeliness-precision	Priorities and Policy	X
Get feedback from regions and advise NMFS leadership regarding needs	X	Input
Get feedback from data users	X	Input