An Introduction to the Information, Planning and Conservation System and the Avian Knowledge Network

4 February 2016

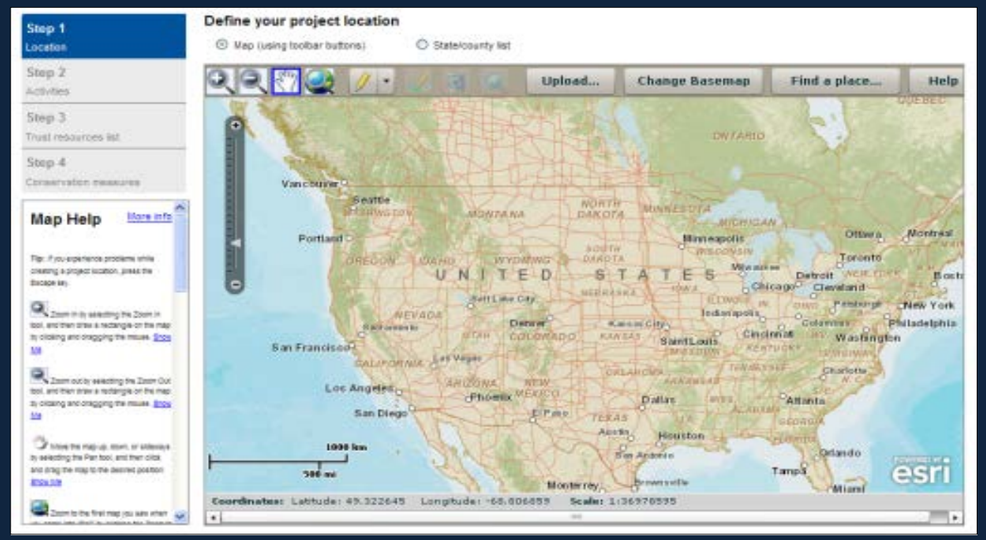
What is IPaC?

Information, Planning and Conservation system

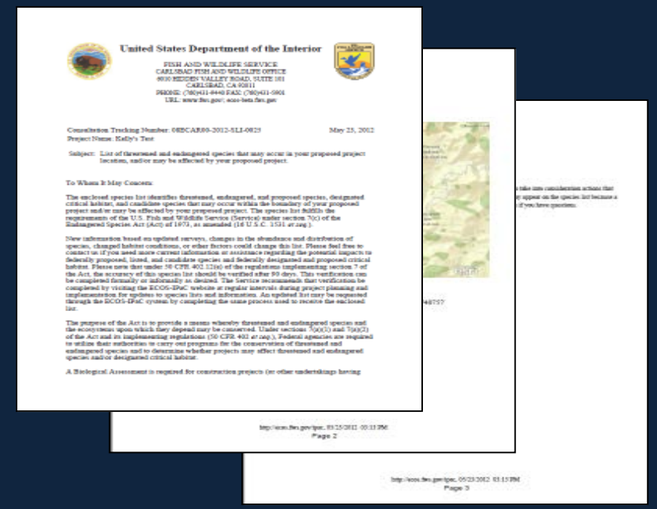
- An online conservation planning tool
- Available to the public
- Tool to:
  - assess how project activities impact natural resources
  - provides recommendations to avoid or minimize those impacts

IPaC Delivers Information

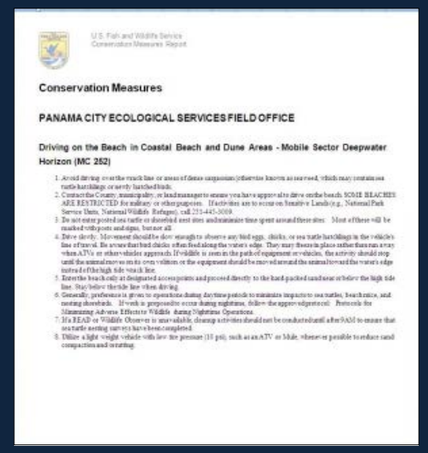
Information, Planning, and Conservation



Species Lists



Conservation Measures



Benefits of IPaC

- Early access to species information
- “One stop shop” – includes ESA and MBTA species
- Links project impacts to species and locations
- Meaningful conservation measures
- Streamline environmental reviews
- Reduce workload

Two Current Aspects of IPaC

- A list of species present at your project site
  - FUNCTIONAL TODAY
- An assessment of project impacts and the conservation measures to reduce those impacts
  - Software and Infrastructure Developed
  - Identifying resources to “build” the effects pathways

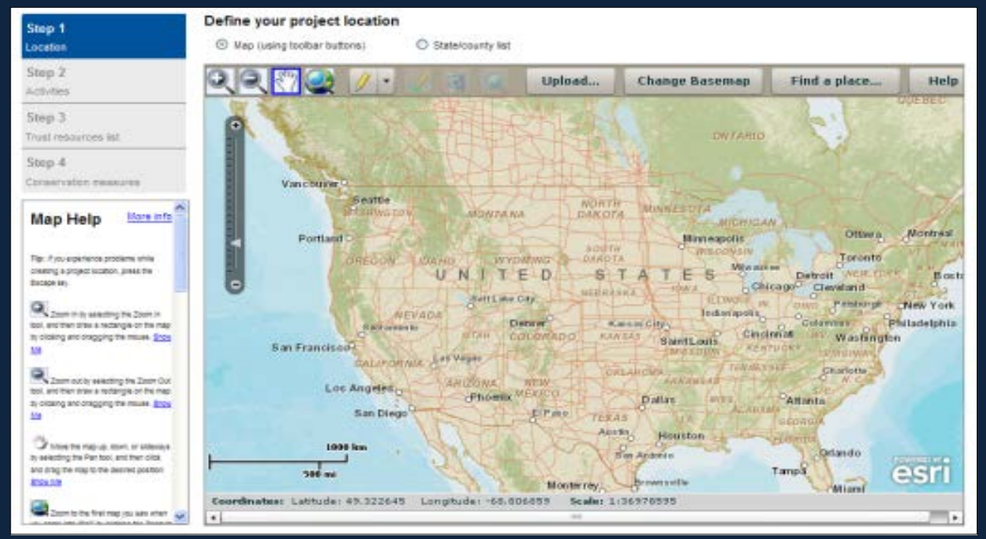
IPaC Delivers Species Lists

Let’s See How

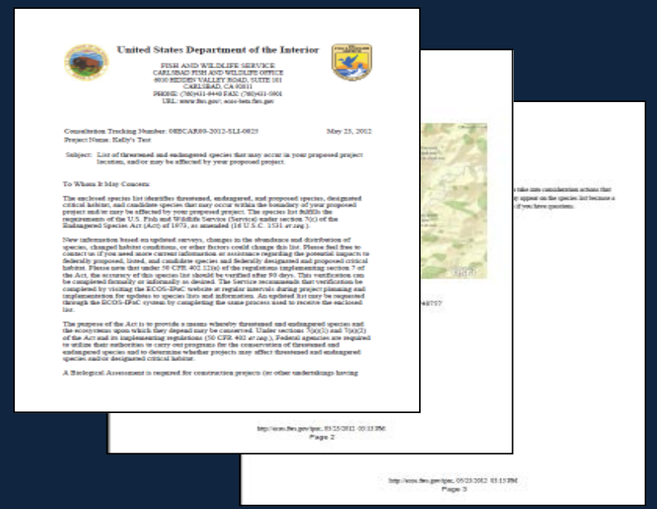
http://ecos-beta.fws.gov/ipac/

IPaC Delivers Conservation Measures

Information, Planning, and Conservation



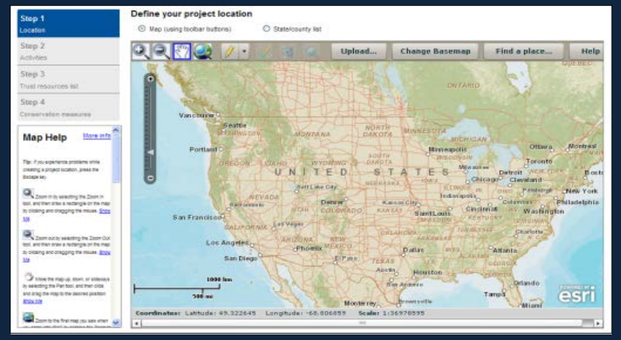
Species Lists



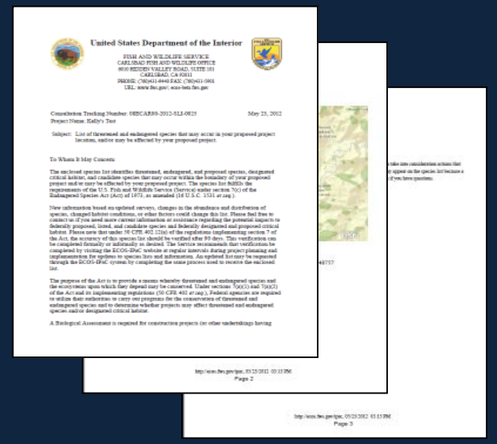
Conservation Measures

IPaC and the Effects Pathway Model

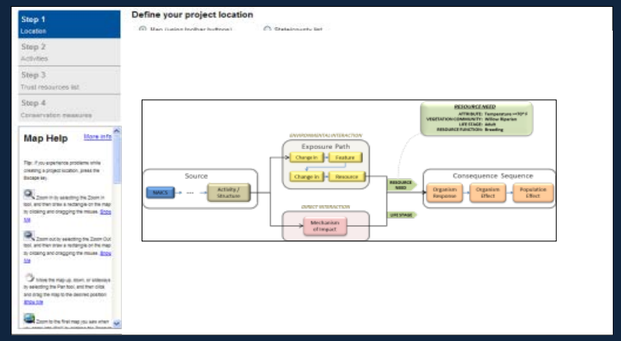
Information, Planning, and Conservation



Species Lists



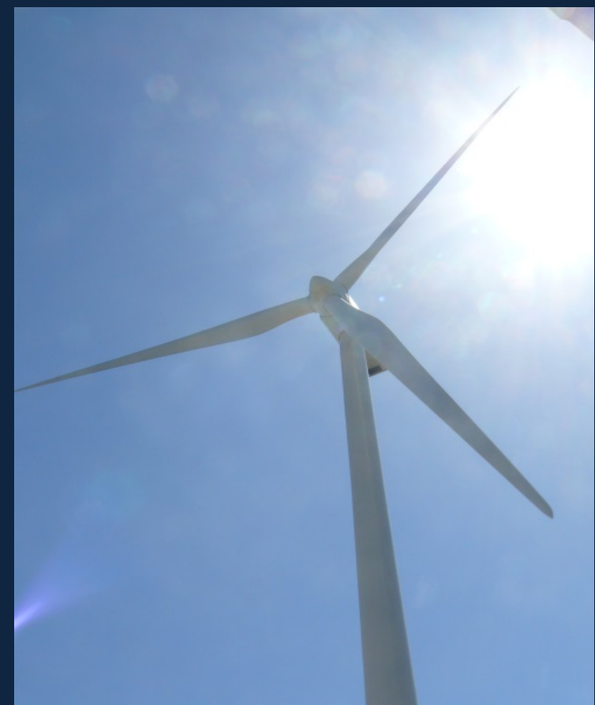
Effects Pathway Manager



Conservation Measures

Stressor Management
What is a Stressor?

A stressor is any *alteration of* or *addition to* the environment that affects resources upon which birds depend



Stressor Management

- Stressors separate the ***problem*** from the ***activity***
  - Often, the ***activity*** cannot be avoided
  - ***Problems*** can be avoided or minimized

- Use Effects Pathway to link cause and effect relationships between project and birds

- A pro-active approach that advises solutions to address the problem

Avian Stressors

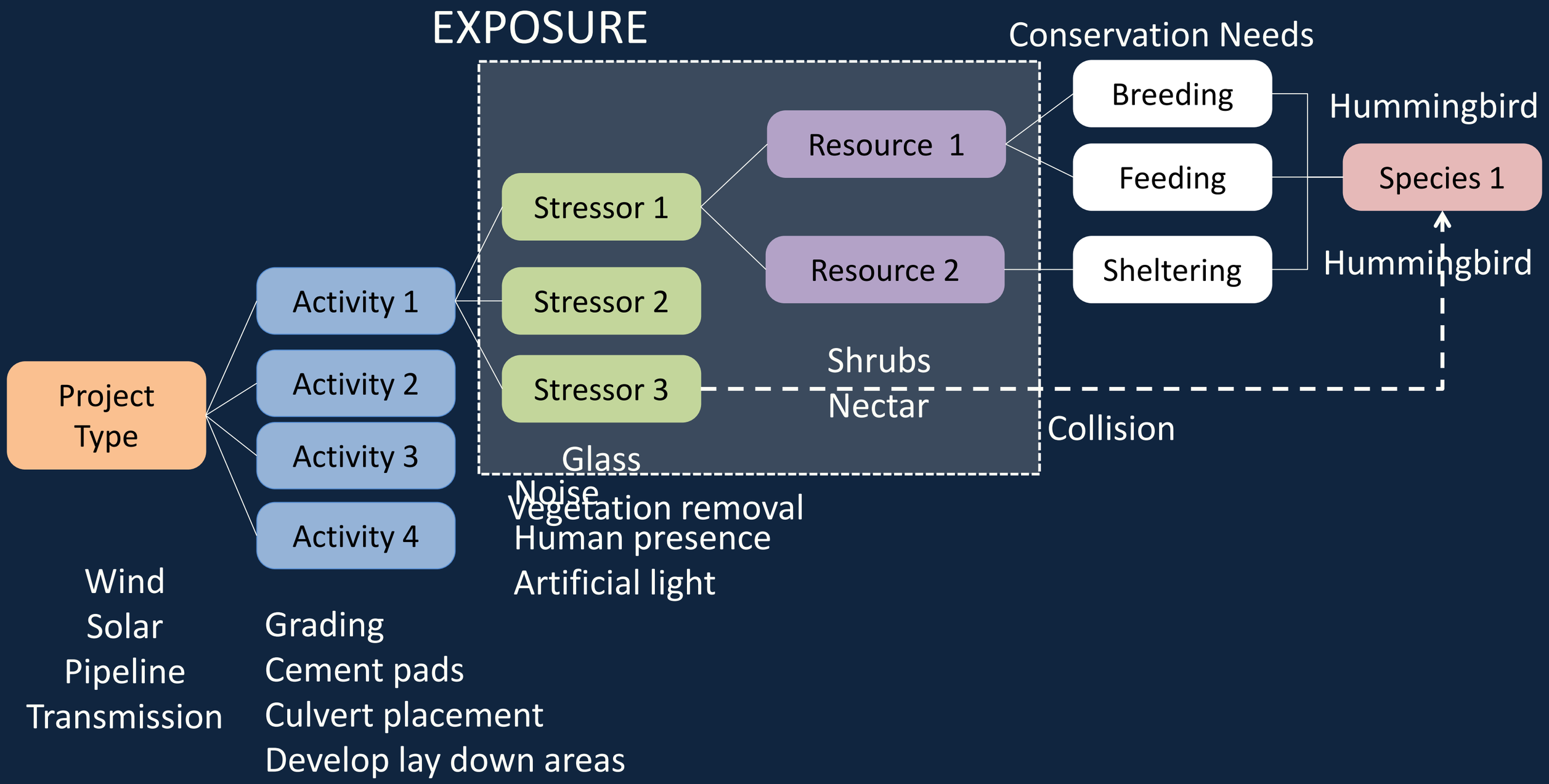
Common stressors include:

- Artificial Light
- Human Presence
- Chemicals
- Invasive Species
- Noise
- Structural additions

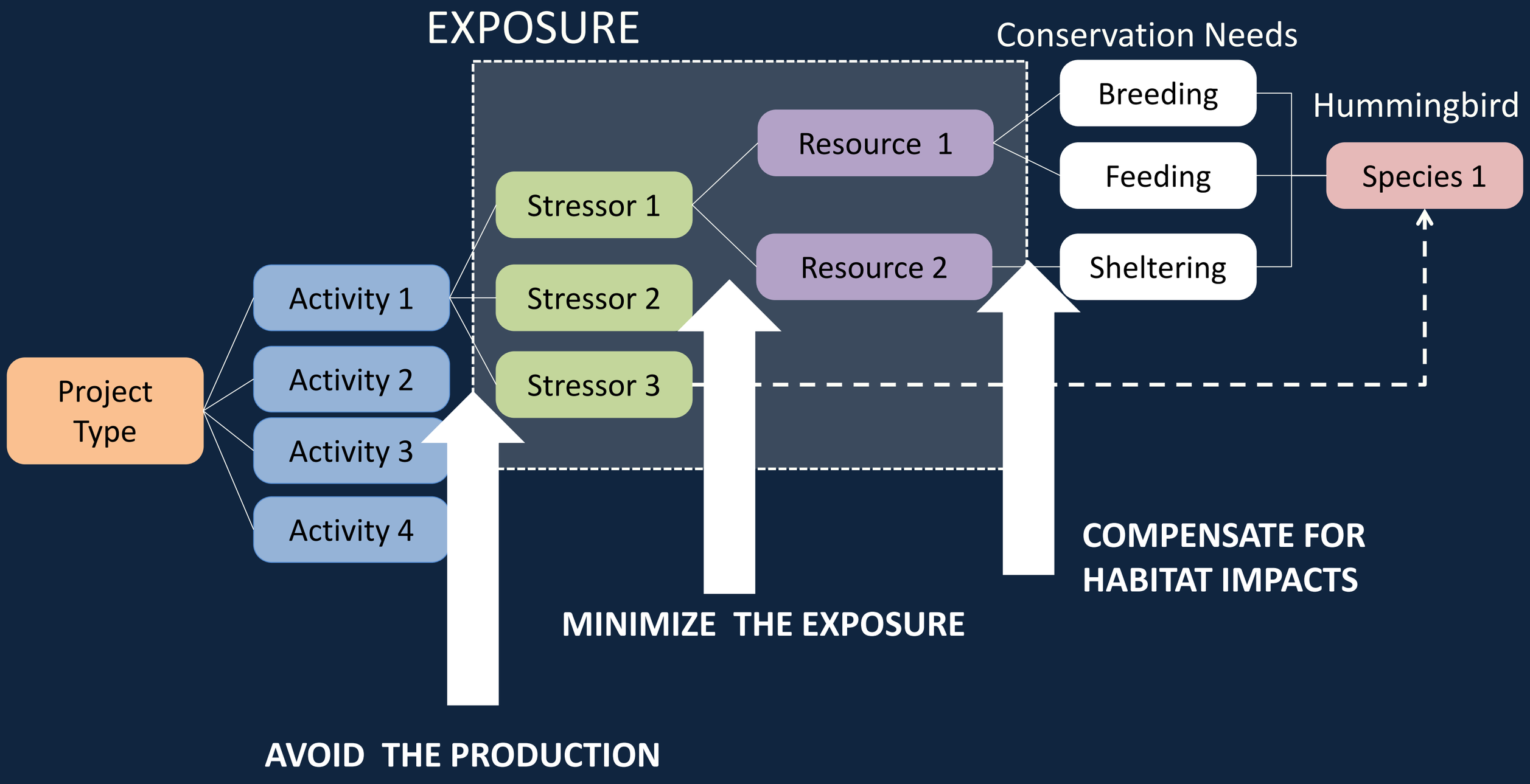
Effect Pathways

The Effect Pathway is a structured method for identifying and organizing the various data elements important to describing causal relationships.

EFFECTS PATHWAY



Conservation Measures



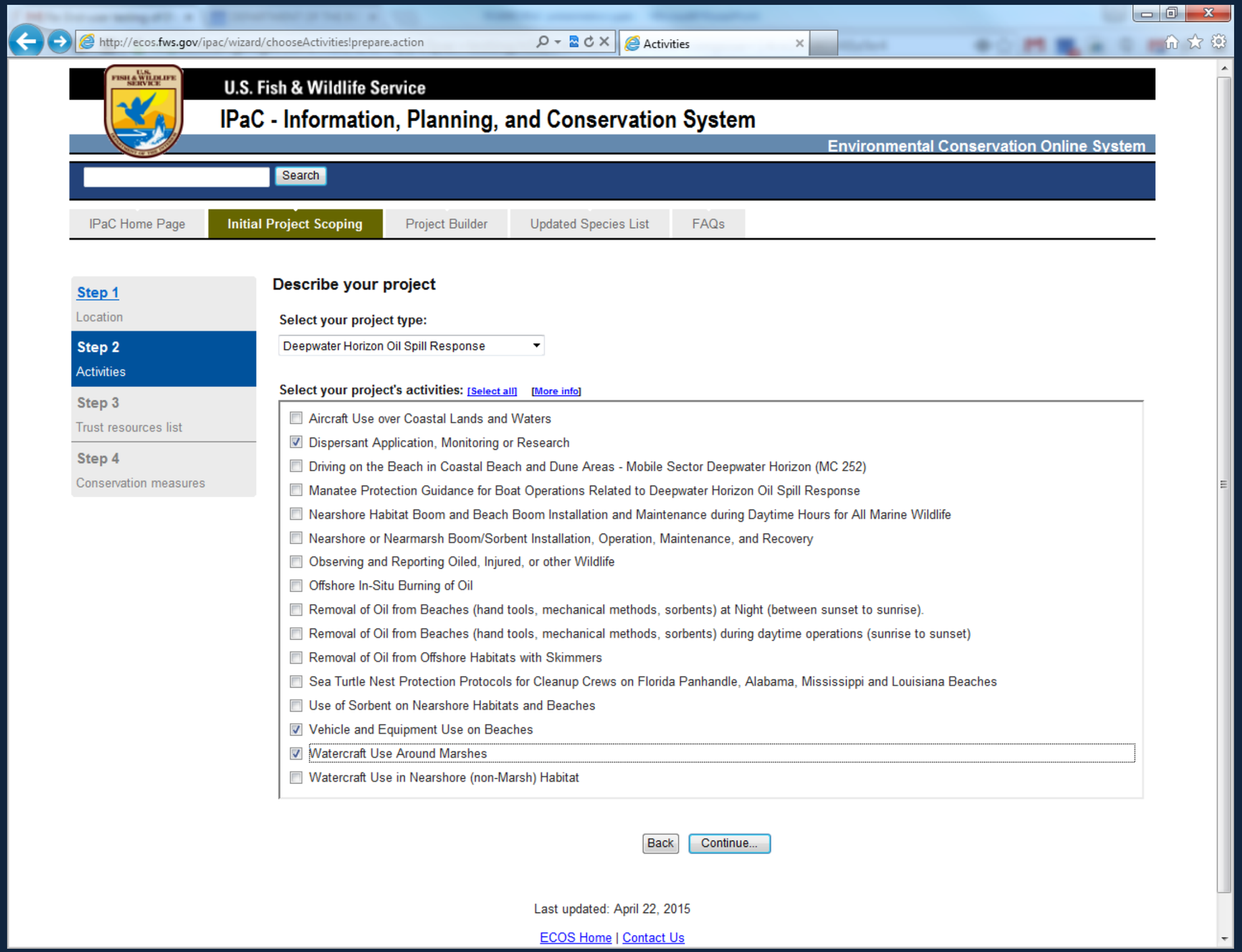
IPaC Delivers Conservation Measures

Let’s See How

http://ecos-beta.fws.gov/ipac/

IPaC Developments

Select Your Activities

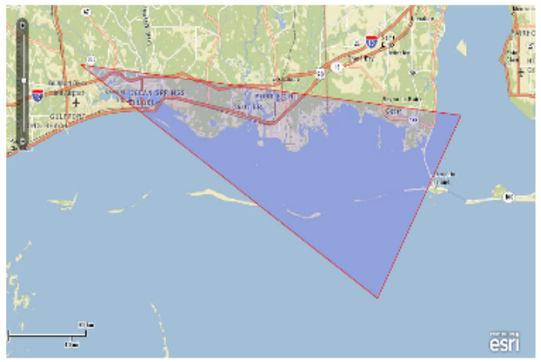


IPaC Developments

Receive your conservation measures

http://ecos.fws.gov/ipac/wizard/managementActionGroupedList!actionListGrouped.a

Conservation Measures Rep...



Note: The map reflects the map layers selected on the Step 1 Location page. To change what appears on this map, return to the Location page and adjust the map layers.

Project Counties:
Mobile, AL | Harrison, MS | Jackson, MS

Project type: Deepwater Horizon Oil Spill Response

Project activities:

- Dispersant Application, Monitoring or Research
- Vehicle and Equipment Use on Beaches
- Watercraft Use Around Marshes

Conservation Measures (Grouped by Office and Activity)

Note: Based on the information you have entered about your project, the FWS Endangered Species Program recommends the following conservation measures to mitigate the effect of your project on T&E species.

Alabama Ecological Services Field Office

Dispersant Application, Monitoring or Research

1. All personnel should attempt to capture injured or oiled sea turtles following the Sea Turtle At-Sea Retrieval Protocol if safe to do so.
2. Approved dispersants may be used in offshore areas in the Gulf of Mexico from the 10-meter isobath or 3 nautical miles, whichever is farthest from the shore, to 200 nautical miles offshore (Exclusive Economic Zone boundary). The state territorial boundary for Louisiana, Mississippi, and Alabama begins at 3 nautical miles. The state territorial boundary for the Florida Gulf Coast is at approximately 10 nautical miles.
3. Contact the Wildlife Hotline (866-557-1401) as soon as possible to report any injured or dead marine mammals and sea turtles.
4. No unapproved dispersant applications operations should occur within 3 nautical miles of marine mammals and sea turtles identified through aerial spotting.
5. Vessels should take prudent actions to avoid collisions with marine mammals/sea turtles.
6. Watch for marine mammals and sea turtles while operating. Record each sighting event, including GPS location, species (if known) and description of the encounter.

Future Development

- Integrate Avian Knowledge Network and IPaC
  - Improve temporal and spatial distribution data
  - Improves conservation measures delivery

Avian Knowledge Network
What is it?

A partnership

Enables decisions

Conservation and management of birds

Our Foundation in Partnerships

Point Blue
Conservation science for a healthy planet.

CORNELL LAB of ORNITHOLOGY

Department of Defense Partners in Flight

eBird

THE INSTITUTE FOR BIRD POPULATIONS

Klamath Bird Observatory

NORTH PACIFIC LANDSCAPE CONSERVATION COOPERATIVE

ROCKY MOUNTAIN BIRD OBSERVATORY

Landbird Monitoring Network of the Americas

SONORAN JOINT VENTURE

CONNECTING CONSERVATION

USGS science for a changing world

PARTNERS IN FLIGHT Southeastern Working Group

FOREST SERVICE US DEPARTMENT OF AGRICULTURE

North American Breeding Bird Survey

NW CSC Northwest Climate Science Center

U.S. FISH & WILDLIFE SERVICE

California Partners in Flight Compañeros en Vuelo

Bird Conservation Network

GB BO

nabci

Avian Knowledge Network

- Provides the architecture to:
  - Archive
  - Organize
  - Access
  - Explore
  - Analyze data

- Coordinates activities among governmental and non-governmental organizations.

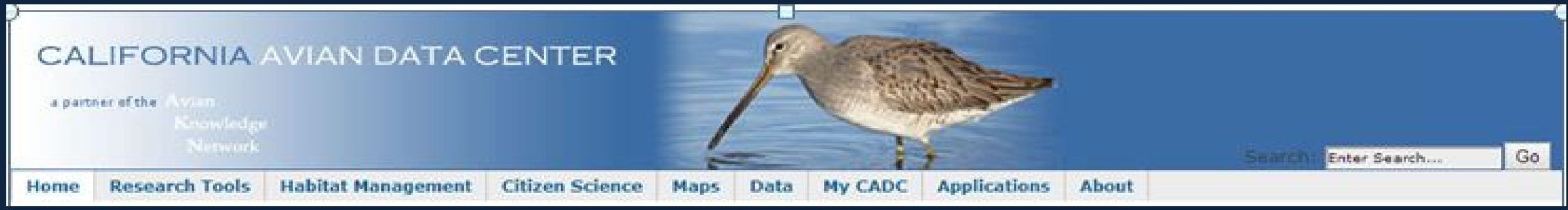
Avian Knowledge Network
What is the problem?

Avian Knowledge Network

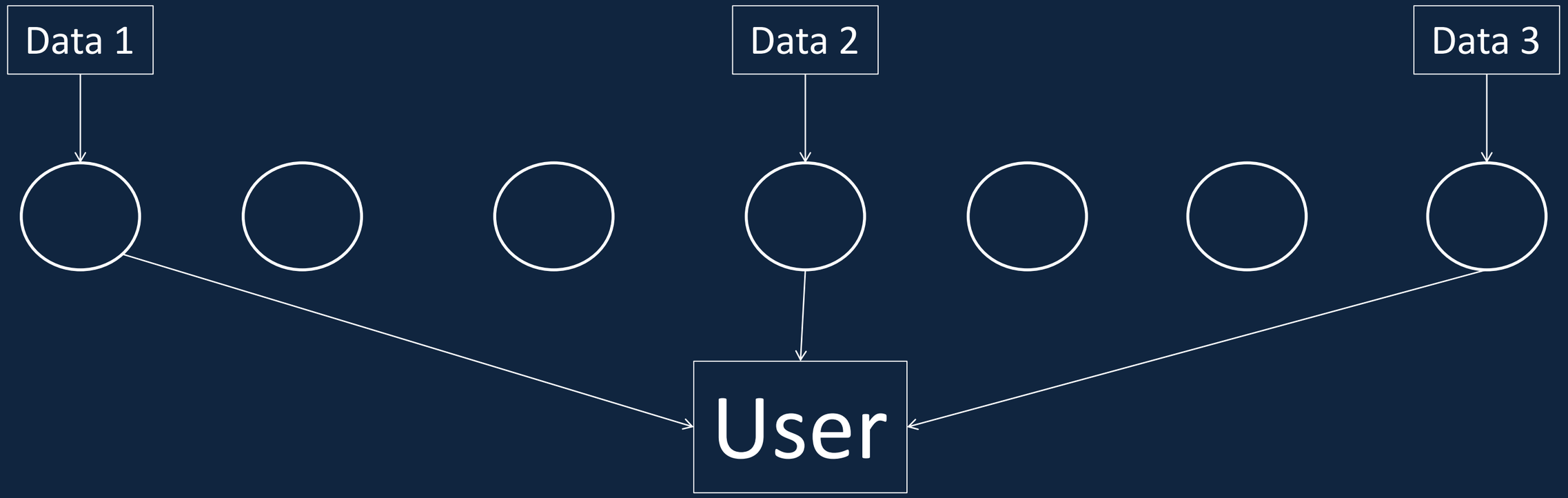
Allows Access to Quality Bird Data

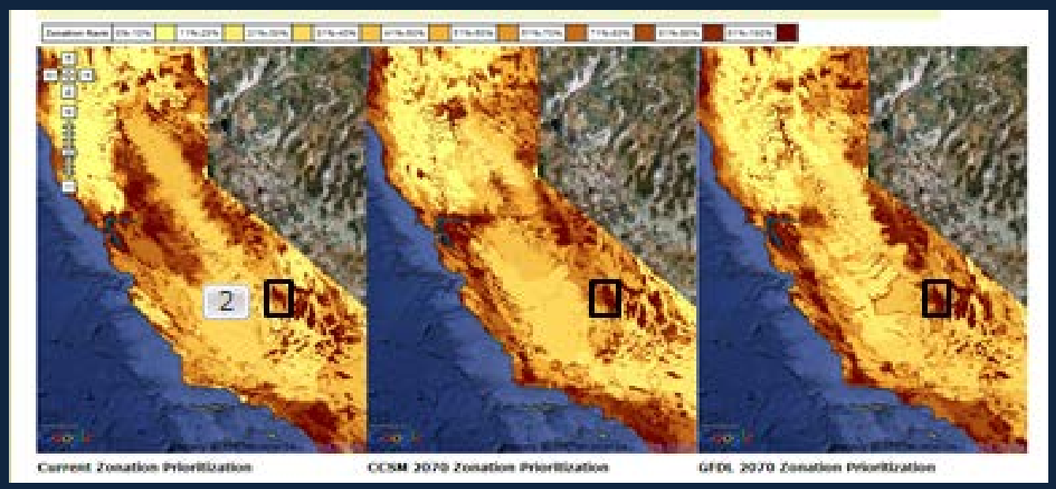
…to improve conservation outcomes for birds.

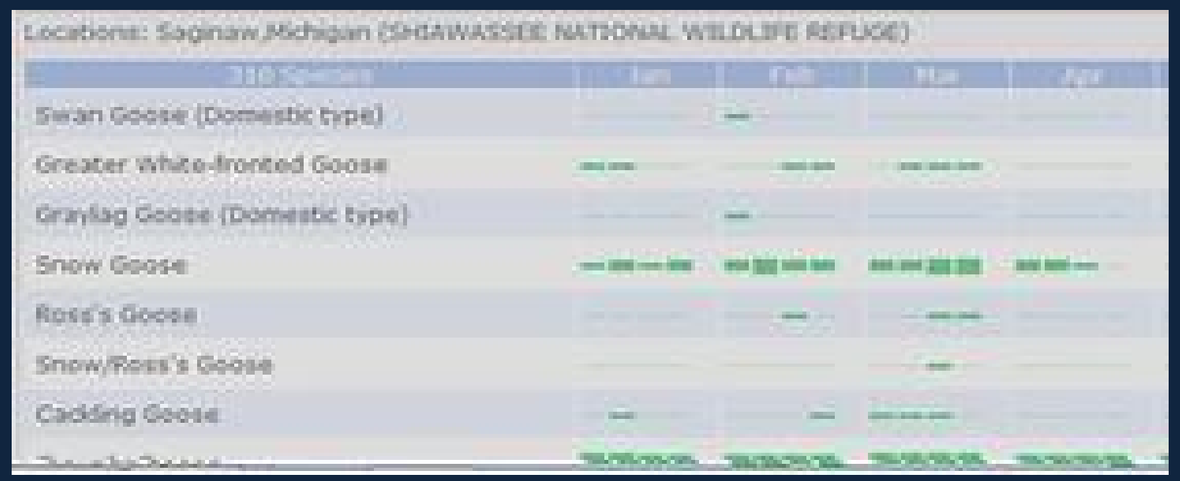
Avian Knowledge Network
How Does It Work?



Avian Knowledge Network
How Does It Work?

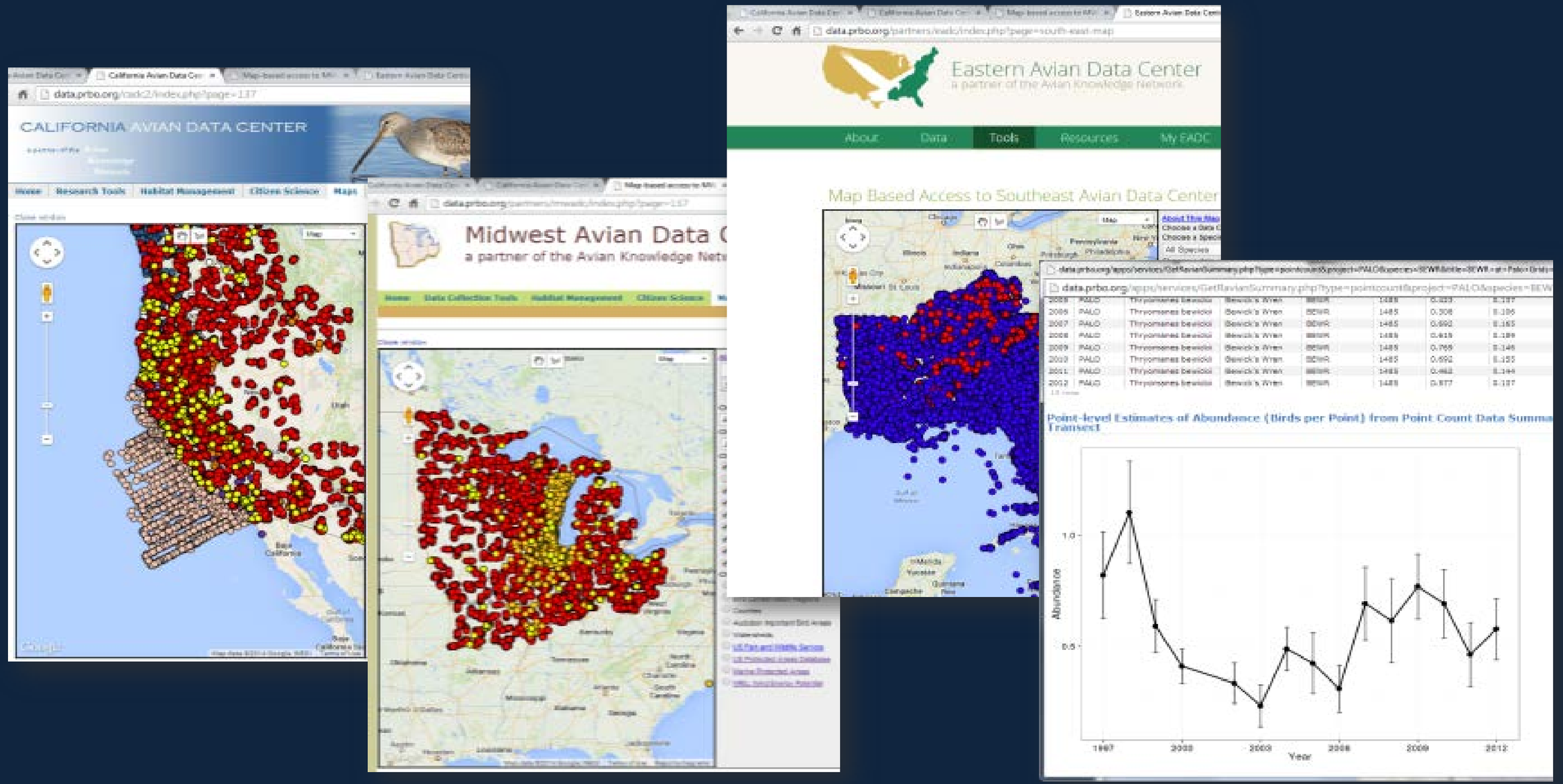






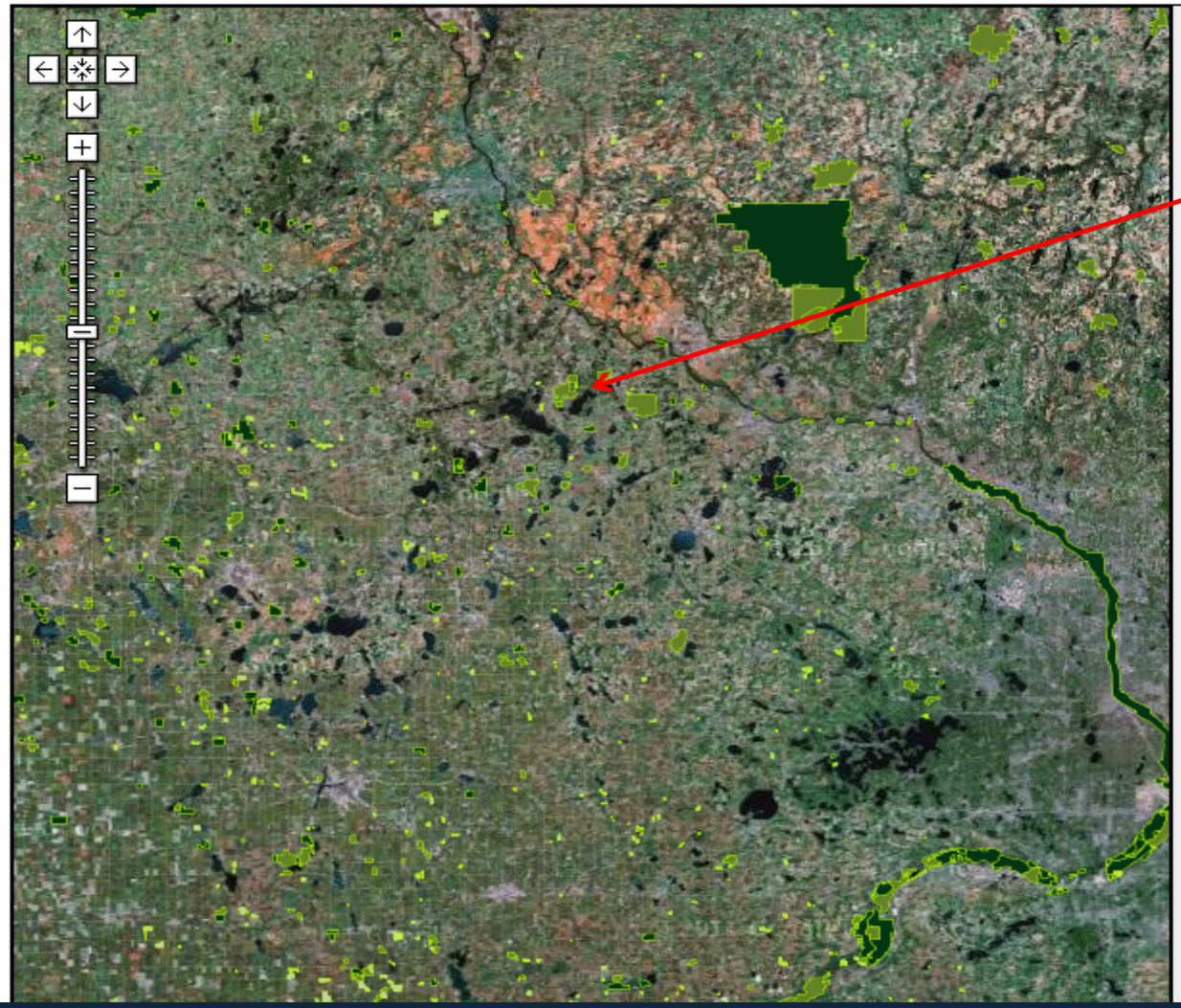
Tools – Tailored to Needs

Ensuring consistency and format of datasets



General Tools
Distribution and Abundance Data

Map-Based Access to Avian Data Summaries for the Midwest



Choose a Data Collection

- Breeding Bird Survey
- eBird
- MAPS Stations
- Bird Conservation Network
- Important Bird Areas of Minnesota Monitoring

Choose a Map Overlay

- States
- Bird Conservation Regions
- Counties
- Audubon Important Bird Areas
- Watersheds
- US Fish and Wildlife Service
- US Protected Areas Database
- Marine Protected Areas
- NREL Wind Energy Potential
- Map Labels

Choose a Species

All Species

Filter Species Periodically by Month

Jan | Dec

Draw a Custom Polygon

Lake Maria State Park

Collections: All collections
Months: 1 - 12

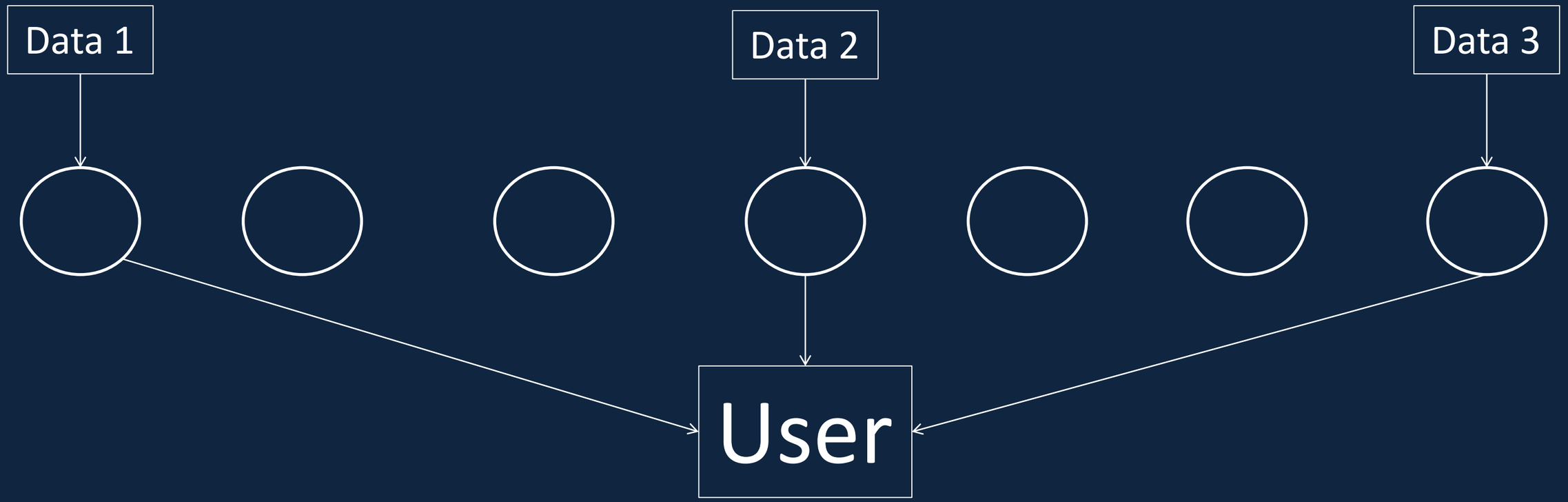
1990 | 1992 | 2003 | 2006 | 2007 | 2009 | 2011 | All Years |

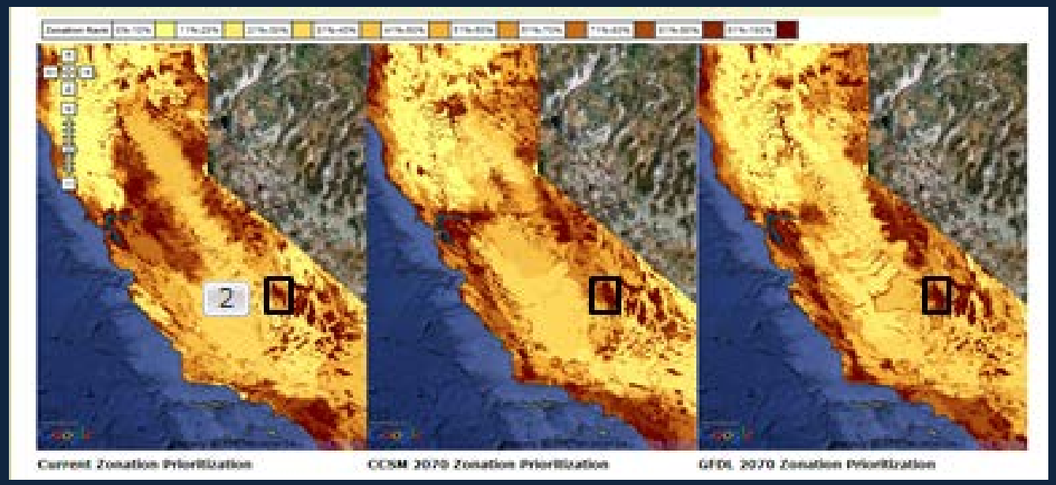
(unid. race) Dark-eyed Junco (1)
American Crow (10)
American Goldfinch (6)
American Robin (2)
American White Pelican (5)
Bald Eagle (2)
Bank Swallow (2)
Barred Owl (1)
Belted Kingfisher (1)
Black-capped Chickadee (20)
Blue-gray Gnatcatcher (1)
Blue Jay (13)
Brown-headed Cowbird (3)
Canada Goose (1)
Chipping Sparrow (3)
Clay-colored Sparrow (1)
Common Redpoll (20)
Common Yellowthroat (16)
Double-crested Cormorant (1)
Downy Woodpecker (3)
Eastern Kingbird (1)
Eastern Phoebe (6)
Eastern Wood-Pewee (3)
Field Sparrow (6)
Golden-crowned Kinglet (1)
Gray Catbird (3)
Great Blue Heron (6)

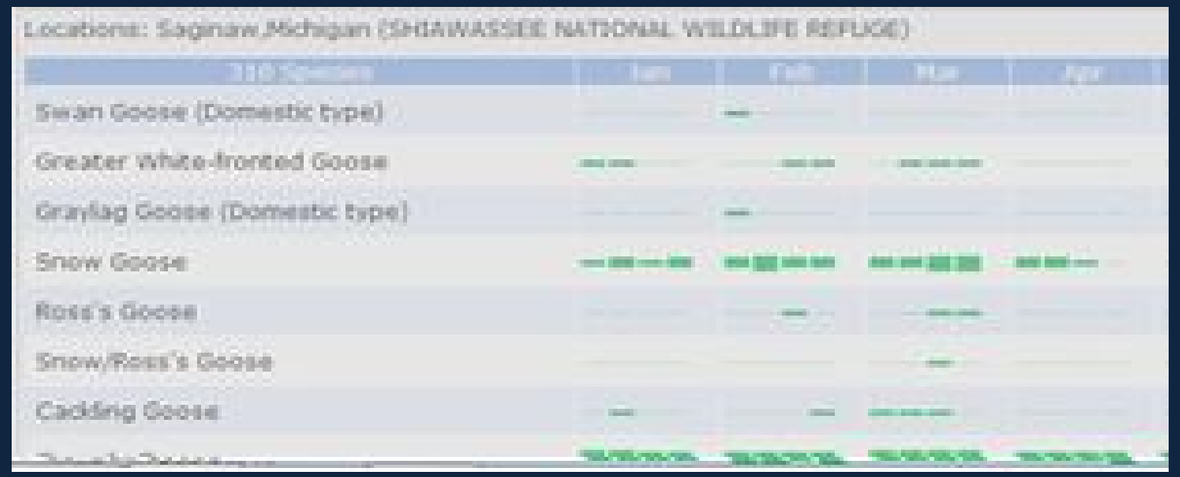
New Developments
Meeting Partner Needs

- Federal Agencies desire tools for:
  - Data management – archive
  - Environmental review needs
  - Land management actions
  - **Data access and decision support**

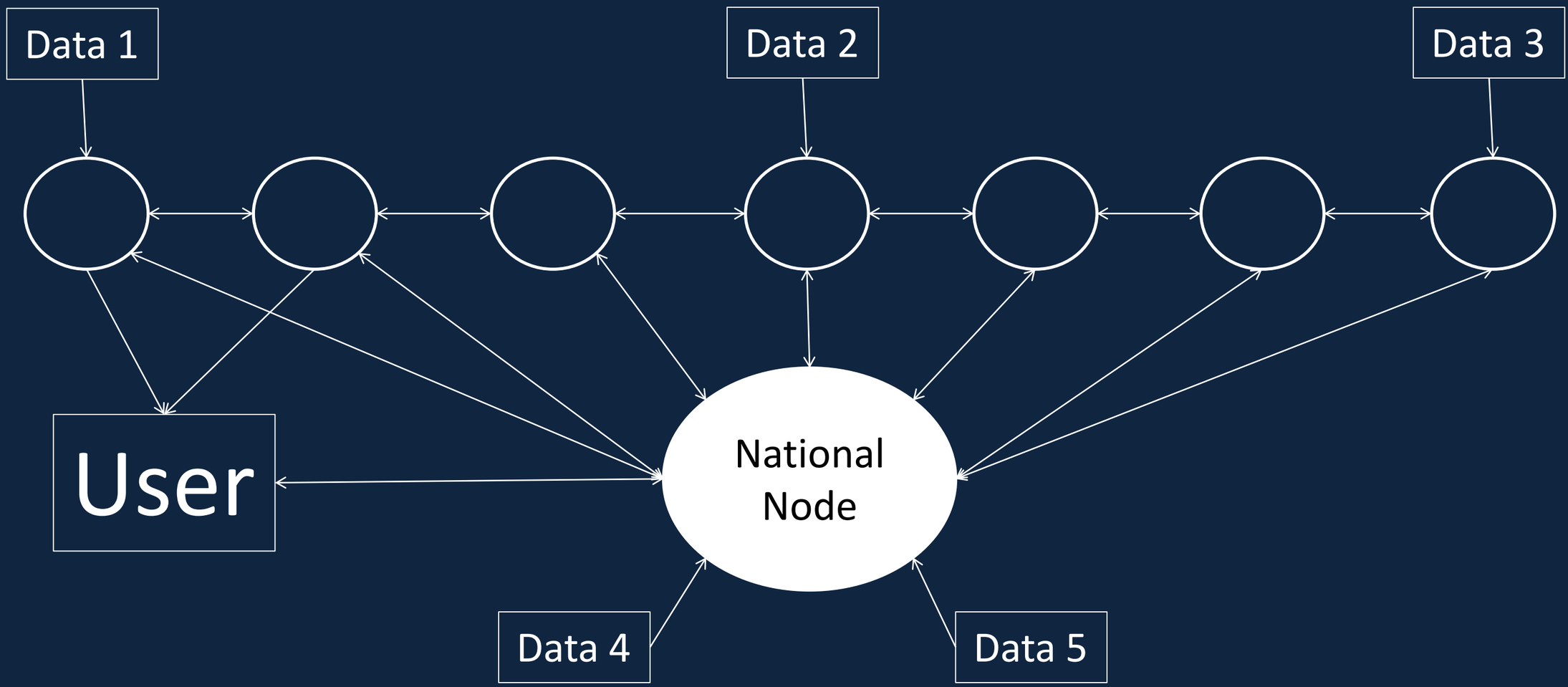
Avian Knowledge Network





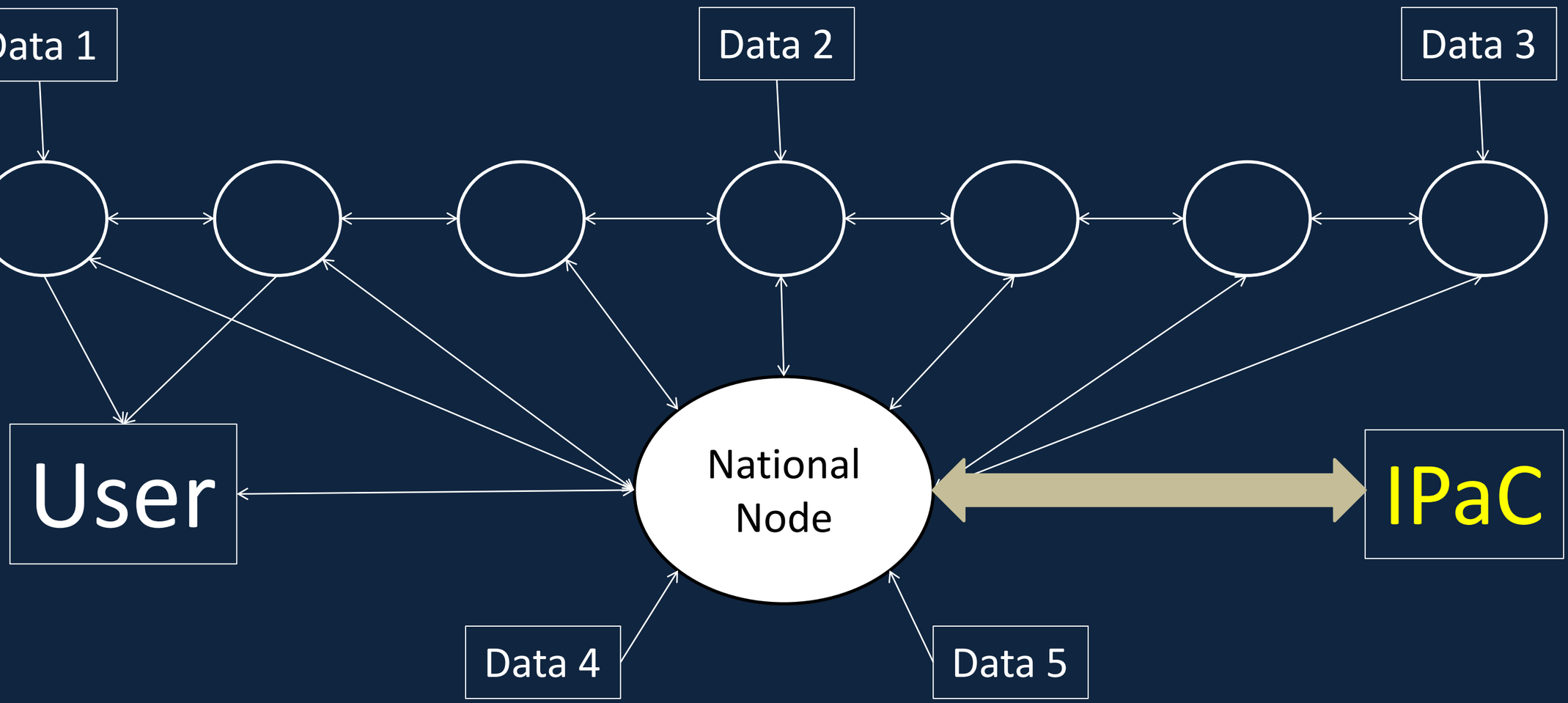


Avian Knowledge Network
What is the Future?

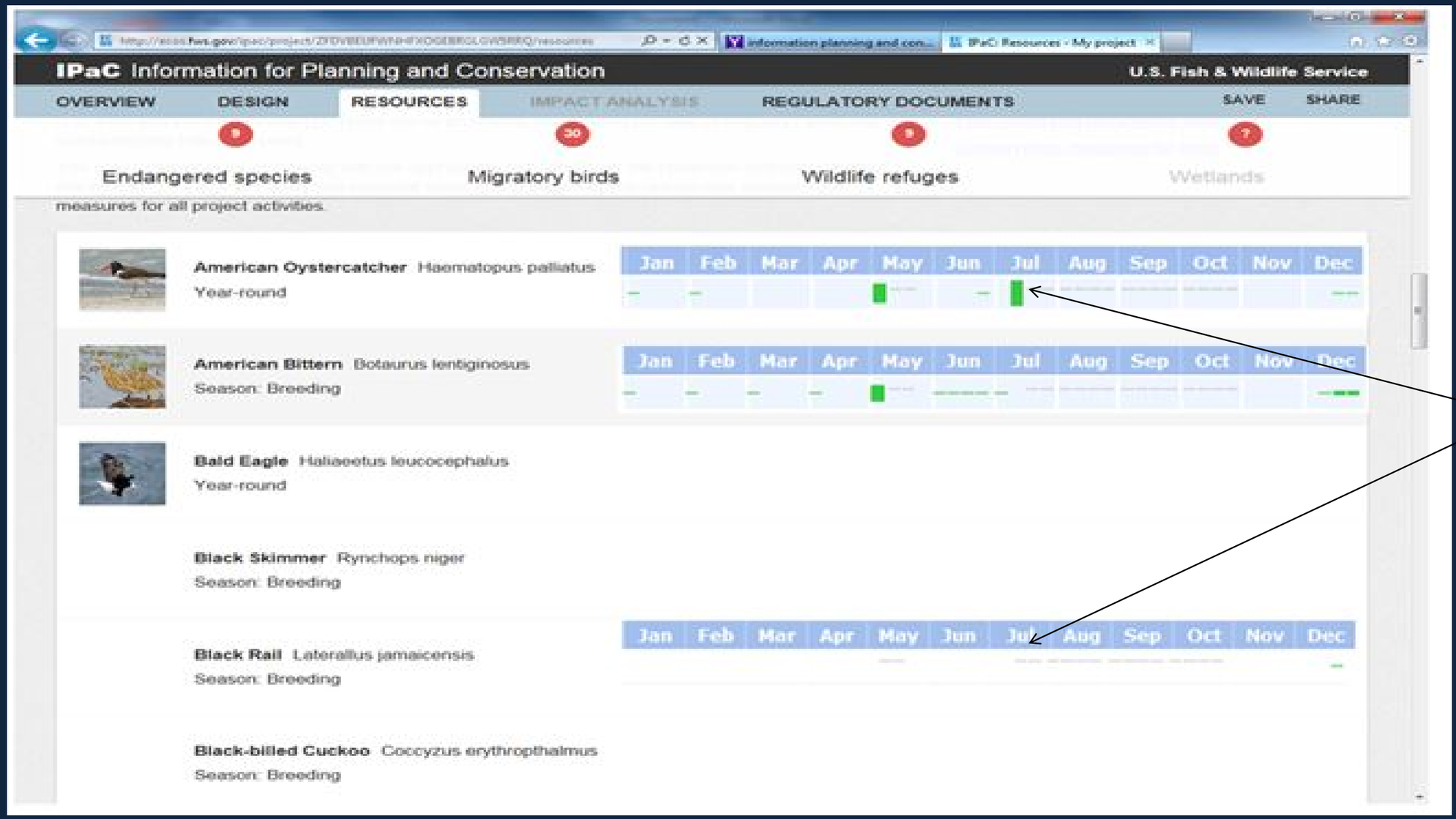


THIS IS A MAJOR ADVANCEMENT

Avian Knowledge Network
Tool Integration



Avian Knowledge Network
IPaC Integration



AKN Distribution data

QUESTIONS?