

LMVJV SCIENCE

General Science Updates



Lower Mississippi Valley

J O I N T V E N T U R E

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Forest Protection Model

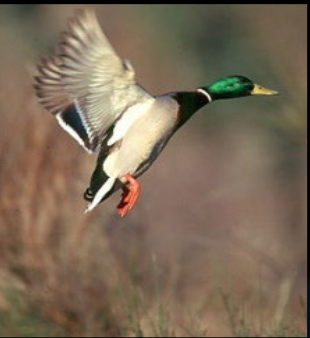
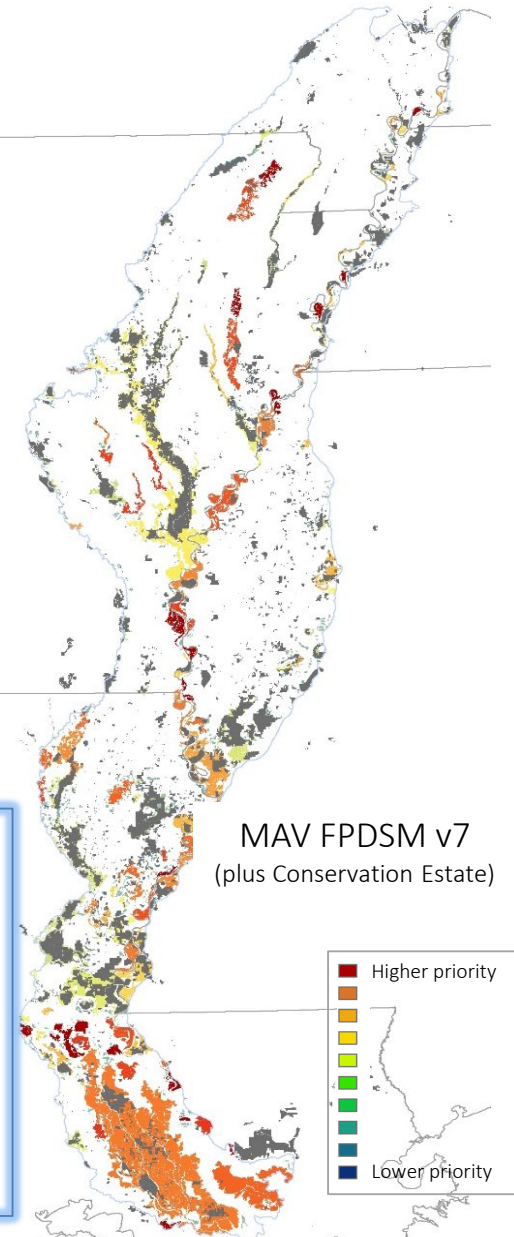
FPDSM Version 7 (Final)

- Protection Scores given to all forest-core areas
- Non-hostile habitat has been removed
- Size classes have changed slightly

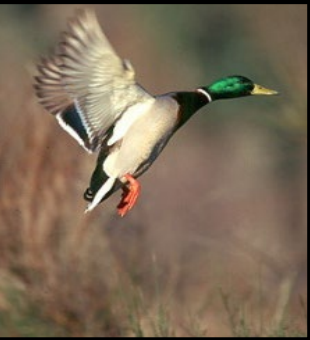
Old Area	New Area
>2,100	> 2,000
1,680-2,100	1,600 - 2,000
< 1,680	< 1,600

- Permanently-protected portions of forest-core areas removed from DSM

Finalized a manuscript for submission to the journal *Forests* for special issue -- Protected Areas in Forest Conservation: Challenges and Opportunities



MAV Landbird Plan



- Meeting at October 29-30th at Ducks Unlimited HQ in Memphis, TN
- Discuss “roll out” of MAV Landbird Plan
- Invitees:

- Dan Twe
- Ran
- Bok
- Dav
- Sar
- LMI

Forest Area Required to Support Landbird Population Goals for the Mississippi Alluvial Valley Bird Conservation Region.

Reforestation of an additional 300,000 ha within the MAV is likely enough to attain the forest-bird population goals for Lower Mississippi Valley Joint Venture.

Brock

The area of presumed population sustaining habitat, under existing forest management, was sufficient to support the species' population objective for 25 species. Of the other species, we estimated that the target populations of 5 additional species could be supported via widespread changes in forest management and the target populations of 11 more species are likely accommodated within the MAV when populations in presumed non-sustaining forest or non-forest habitats are considered. Finally, for the remaining 13 species, we estimate the population increase needed to achieve their population goals

Human Dimensions



- **July meeting with LMVJV Waterfowl Working Group Co-chairs – Luke Naylor and Dale James**
 - 1) What Human Dimensions considerations do we need to account for in our Joint Venture, in general
 - 2) Based on 2 or 3 ideas, solicit feedback on how to bring these ideas to fruition

Invitees:

- Luke Naylor (AGFC), Dale James (DU), Ashley Gramza (AGFC), Keith McNight (LMVJV), Anne Mini (LMVJV), Wiley Carr (USFWS), John Brunjes (KDWR), Heath Hagy (USFWS), Randy Wilson (USFWS)

November 19-20th in Stuttgart, AR



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Monitoring and Evaluation Priorities Update



Lower Mississippi Valley

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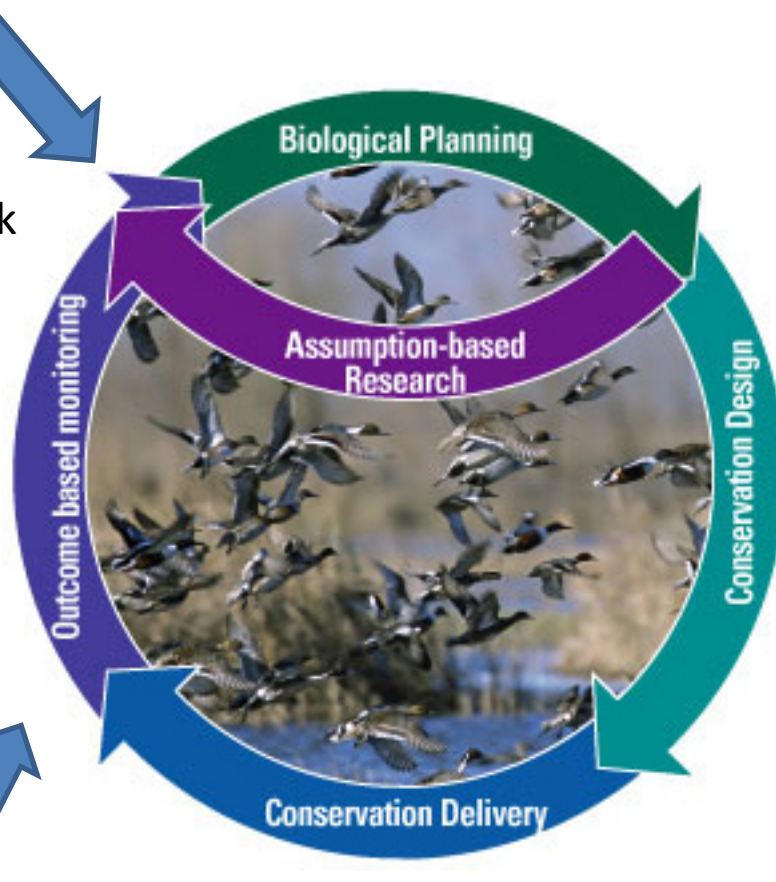
www.lmvjv.org



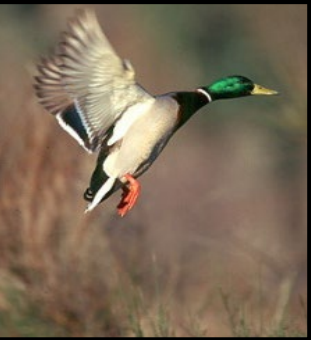
Monitoring & Evaluation

Supplies raw material for testing important assumptions made in the Biological Planning & Conservation Design

Provides essential feedback loop to measure success towards objectives



Tend to be the most consistently ignored and/or underfunded



LMVJV Monitoring & Evaluation Summary Spring 2016

- Monitoring/Evaluation Tool → how do we monitor
- Purpose → why is it a need
- Protocol → link or description if in place
- Status → is the monitoring currently happening
- Timeframe → how often should item be monitored

Waterfowl

Monitoring/Evaluation Need: Evaluate contribution of Joint Venture to North American Waterfowl Management Plan habitat goals

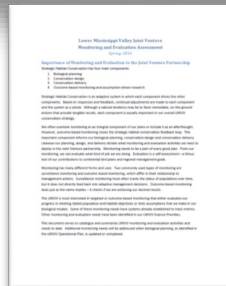
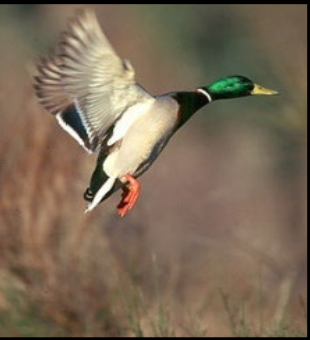
Public land

- **Monitoring/Evaluation Tool:** Water Management Unit Database
- **Purpose:** Track Duck Energy Days provided through impounded wetland units on public land
- **Protocol:** <https://lmvju.cr.usgs.gov/home/>
- **Status:** On-going
- **Timeframe:** Data calls as needed

Shorebirds

Monitoring/Evaluation Need: Assess management capabilities in late summer/early fall on public lands

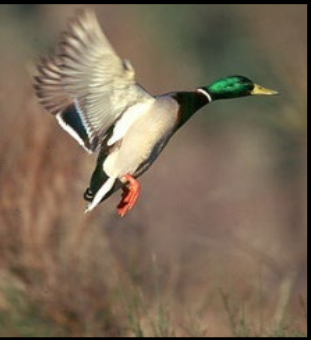
- **Monitoring/Evaluation Tool:** None
- **Purpose:** Late summer and early fall water availability is assumed most limiting to shorebird species during migration through the LMVJV. The condition and availability of shorebird habitat on public lands is relatively unknown. An assessment of management capabilities for shorebirds would highlight limitations in management or identify areas in which further support is needed to provide high quality shorebird habitat.
- **Protocol:** none
- **Status:** Needs assessment
- **Timeframe:** unknown



LMVJV Monitoring & Evaluation

Where we left off (2016)

- Provide repository for detailed methodology
- Identify which monitoring/evaluation needs may be highest priority
- Identify factors for why monitoring is not occurring
- Gather Science Team to discuss strategy for developing monitoring and evaluation priorities



LMVJV Monitoring & Evaluation



LMVJV Operational Compass: Habitat Conservation To Sustain Bird Populations Through Science, Technology and Partnerships

SHC Framework	Element/Product	NAWMP	PIF	USSCP	NAWP	NAWMP	PIF	USSCP	NAWP
	Biological Planning Unit	Mississippi Alluvial Valley				West Gulf Coastal Plains/Ouachitas			
Outcome-based Monitoring	Conservation Tracking System	Light Green	Yellow	Light Green	Yellow	Light Green	Yellow	Light Green	Yellow
	Habitat Inventory and Monitoring Program	Dark Green	Light Green	Yellow	Red	Dark Green	Yellow	Yellow	Red
	Population Monitoring Program	Light Green	Yellow	Yellow	Red	Light Green	Dark Green	Yellow	Red

Dark Green	Reliable information exists; good mechanisms in place
Light Green	Some reliable information exists, but needs to be updated; mechanisms in development
Yellow	Information exists, but not much or not adopted by JV; needs significant attention; AND/OR lacking in some guilds within the bird group
Red	Information absent or of little value; little/no attention paid to this by the JV

LMVJV Monitoring & Evaluation



Lower Mississippi Valley Joint Venture Monitoring and Evaluation Plan



Introduction

The Lower Mississippi Valley Joint Venture Partnership promotes targeted, outcome-based monitoring that either: 1) evaluates our progress in meeting stated population and habitat objectives for the major international bird plans, or 2) tests assumptions made in our biological models regarding population or habitat objectives. Some of our monitoring needs have systems already established to track metrics, and others need to be developed. The four major international bird plans include the North American Waterfowl Management Plan, the Partners in Flight Landbird Plan, the North American Waterbird Conservation Plan, and the U.S. Shorebird Conservation Plan. Furthermore, we have certain technical expectations that represent the desired characteristics of Joint Ventures with regards to monitoring. Under each bird plan section, we will describe how we are achieving content in each area, provide recommendations for continuing or improving our activities, and briefly describe habitat inventory and monitoring programs and population monitoring programs where appropriate.

Element	Sub Element/Product	TECHNICAL EXPECTATIONS	
		Minimal Content- Expected characteristics and level of performance for newly established and/or minimally-funded Joint Ventures.	Comprehensive Content- Joint Ventures should move toward this content as a Joint Venture matures and funding levels increase.
MONITORING	Coordination/Partnerships	Joint Venture informs and influences partner organizations implementing monitoring programs.	Joint Venture provides a structure and process that generates, attracts, leverages, and implements outcome-based monitoring activities in support of Joint Venture established biological targets.
	Conservation Tracking System	General description of anticipated need for tracking partnership activities (gross partnership accomplishments). A vision for creating that capability among partners. The joint venture office solicits information on accomplishments from joint venture partners, organizes and submits the information to appropriate managers of national databases and Management Board.	Conservation tracking and spatial database system in place. Explicit description of how information will be used to inform decisions (e.g., increasing performance for Program X). Explanation of linkage between tracking system and biological models so that biological accomplishments can be assessed and reported.
	Habitat Inventory & Monitoring Programs	General description of anticipated process that will be employed to inventory and monitor landscape conditions and net habitat change over time and net progress toward habitat objectives (gains and losses).	Documentation of habitat monitoring objectives and habitat parameters that will be inventoried and monitored over time. Expected process (e.g., remote sensing) and time interval for data collection. Explicit description of how information will be used to inform decisions (e.g., refining habitat or population objectives). Assessment of the net change in Joint Venture landscape conditions conducted at <5 year intervals.
	Population Monitoring Program	Description of anticipated process for prioritizing and coordinating monitoring of bird population responses over time.	Documentation of demographic parameters monitored specific to each objective. Expected process (e.g., aerial surveys, nest survival) and time interval for data collection, storage, and management. Explicit description of how new information collected from monitoring programs will be used to inform future planning decisions (i.e., identify the feedback loop).

Coordination

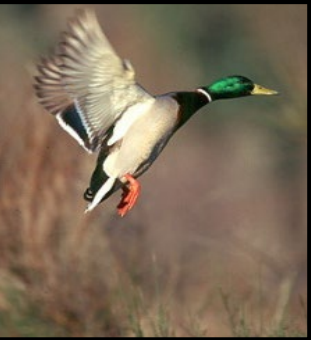
Tracking System

Habitat
Inventory &
Monitoring

Population
Monitoring

LMVJV Monitoring & Evaluation Next Steps

- Finish draft of Monitoring and Evaluation plan
- Share draft with Science Team for input
- Arrange Spring meeting of the Science Team to discuss finalizing the plan

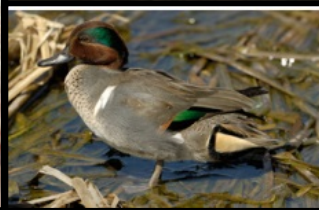


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Water Management Unit Tool Update



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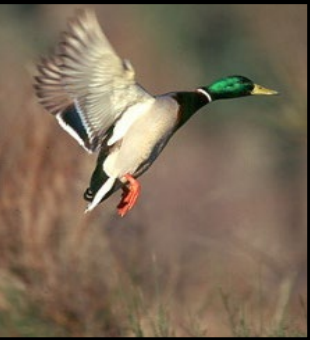
LMVJV Wetlands Management & Monitoring Applications

History

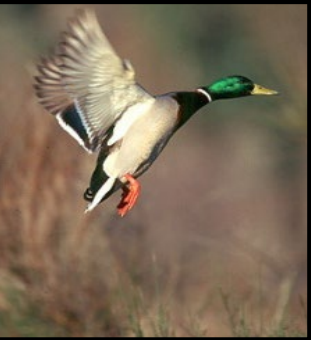
- **Two web-based, online applications**
 - Water Management Unit (WMU) Management
 - Moist-soil Monitoring, Management & Reporting (MMR)



The screenshot displays the website for LMVJV Impounded Wetlands Management & Monitoring Applications. At the top left is the USGS logo with the tagline "science for a changing world". To the right is a navigation menu with "USGS Home", "Contact USGS", and "Search USGS". Below this is a dark green header with the text "LMVJV Impounded Wetlands Management & Monitoring Applications" and a "Login" link. The main content area features the heading "LMVJV Moist-Soil Data Management Applications" followed by a "Links" section with two bullet points: "Water Management Unit (WMU) Management Tool" and "Moist-Soil Monitoring, Management & Reporting Application". Below that is a "User Accounts" section with three bullet points: "Create a New User Account", "Forgot your Password?", and "Forgot your Username?". On the right side of the page, there is a photograph of several ducks flying over a field of tall grass.



LMVJV Wetlands Management & Monitoring Applications



- **History of the Application**
 - LMVJV Waterfowl Working Group
 - Needed a way to track waterfowl habitat to assess energy (DEDs) provided
 - Completed in 2011
- **Relevance to Joint Venture Partners**
 - Designed for public land data
 - Informs Joint Venture biological planning
 - Assess contribution to NAWMP goals



LMVJV Wetlands Management & Monitoring Applications

History

- **Two web-based, online applications**
 - Water Management Unit (WMU) Management
 - Moist-soil Monitoring, Management & Reporting (MMR)



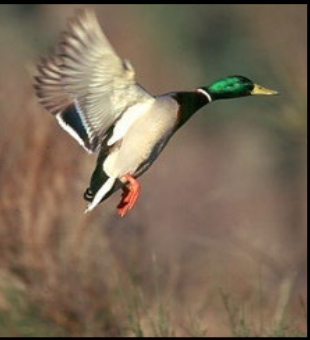
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Links

- [Water Management Unit \(WMU\) Management Tool](#)
- [Moist-Soil Monitoring, Management & Reporting Application](#)

User Accounts

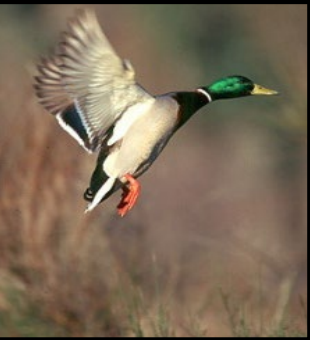
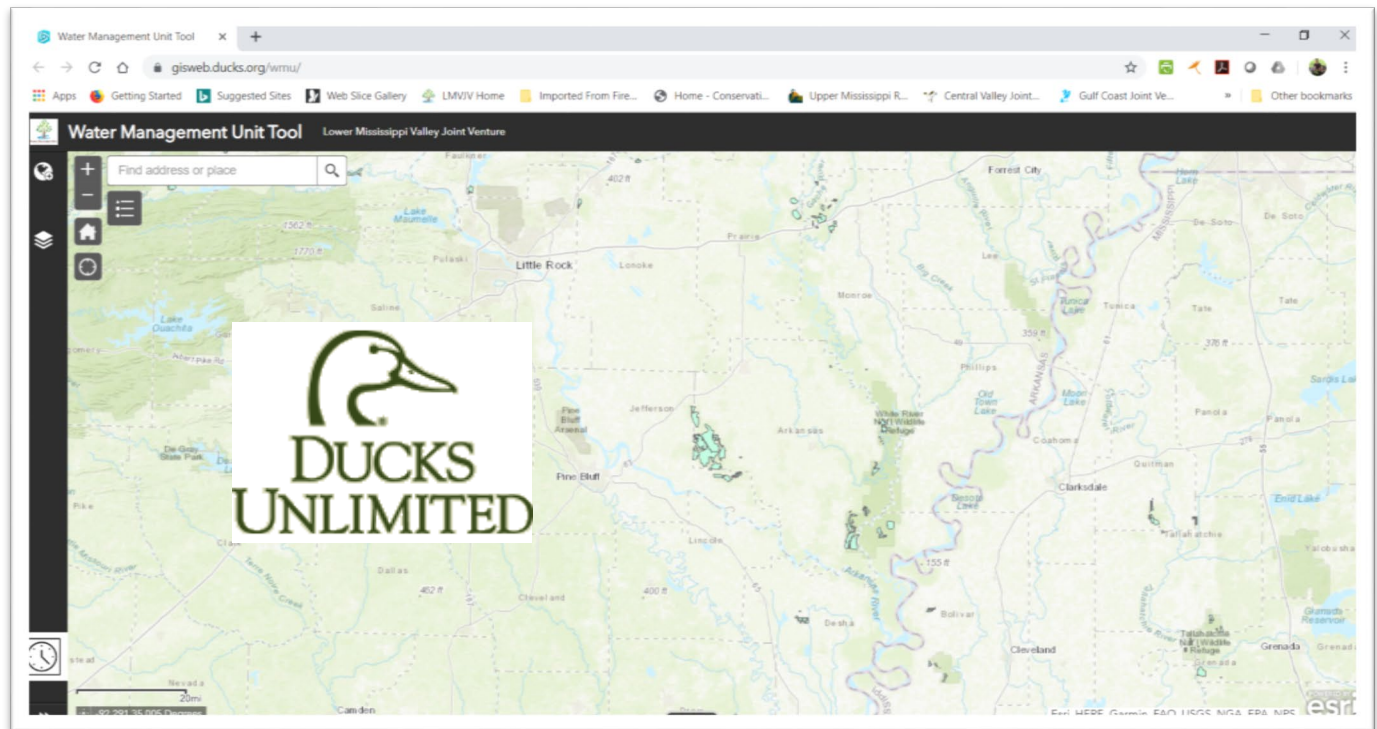
- [Create a New User Account](#)
- [Forgot your Password?](#)
- [Forgot your Username?](#)



LMVJV Wetlands Management & Monitoring Applications

Now

- One web-based, online application
 - Water Management Unit (WMU) Management
 - ~~Moist-soil Monitoring, Management & Reporting (MMR)~~



LMVJV Water Management Unit Tool

Similarities

Web service log on

Sign In

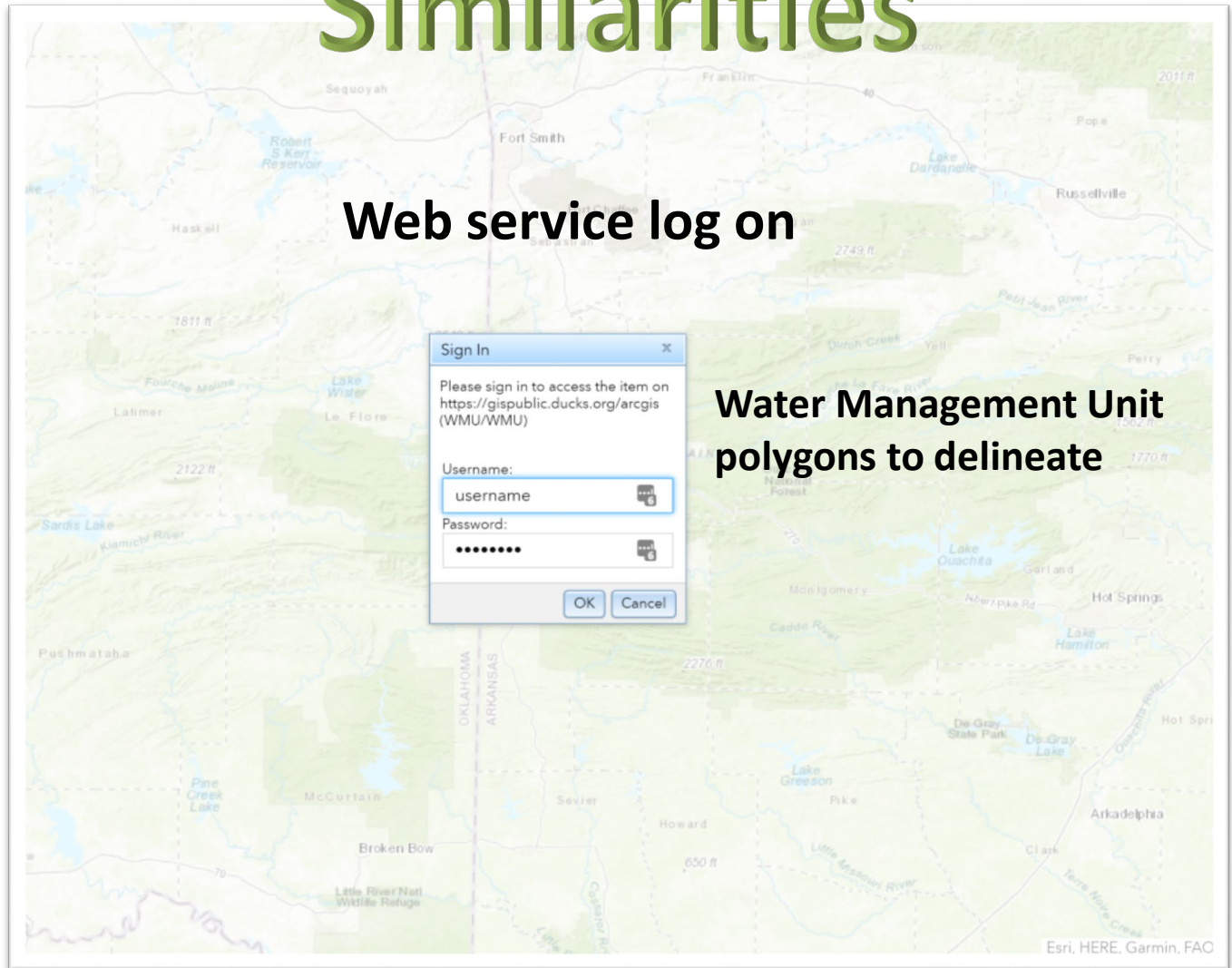
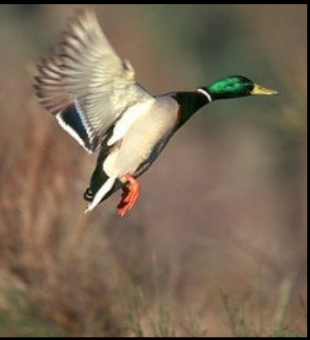
Please sign in to access the item on <https://gispublic.ducks.org/arcgis> (WMU/WMU)

Username:
username

Password:
••••••

OK Cancel

Water Management Unit polygons to delineate



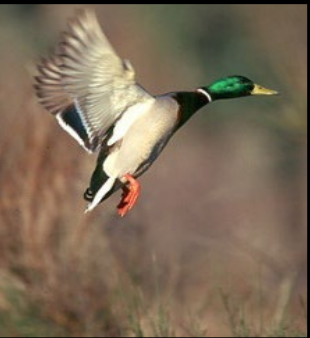
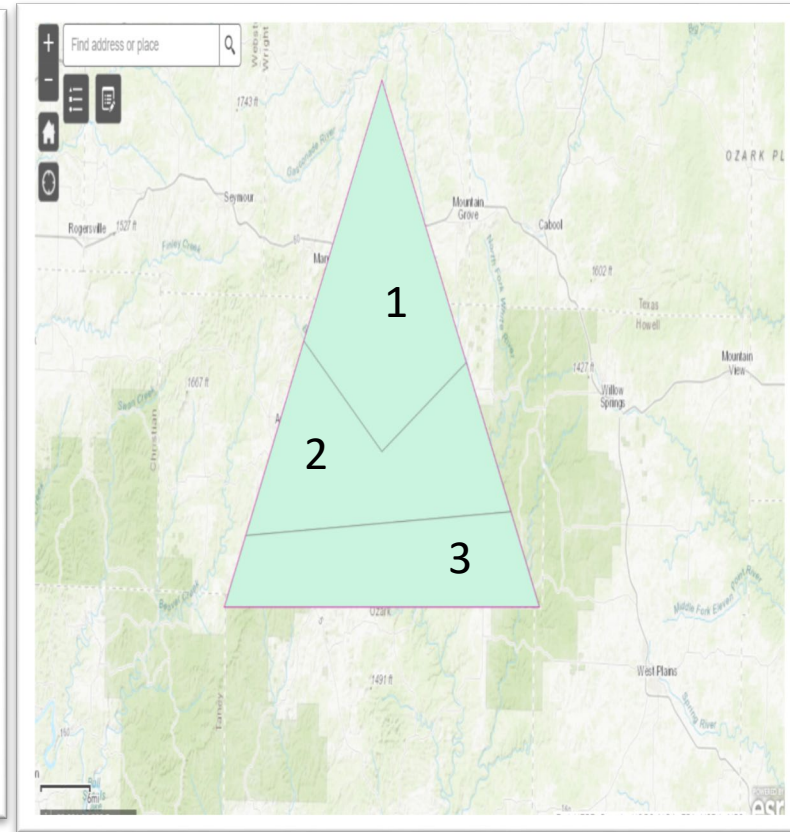
LMVJV Water Management Unit Tool

Differences

Old – Single Unit



New – Subunits within WMU



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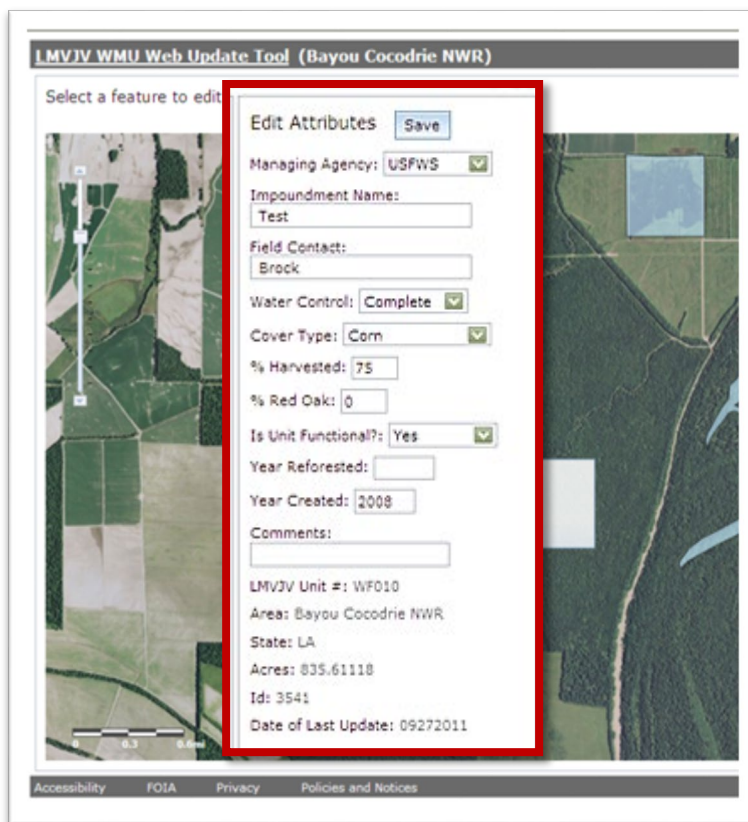
www.lmvjv.org

LMVJV Water Management Unit Tool

Differences

Old – Many Attributes

New – Simplified Attributes



LMVJV WMU Web Update Tool (Bayou Cocodrie NWR)

Select a feature to edit

Edit Attributes

Managing Agency:

Impoundment Name:

Field Contact:

Water Control:

Cover Type:

% Harvested:

% Red Oak:

Is Unit Functional?:

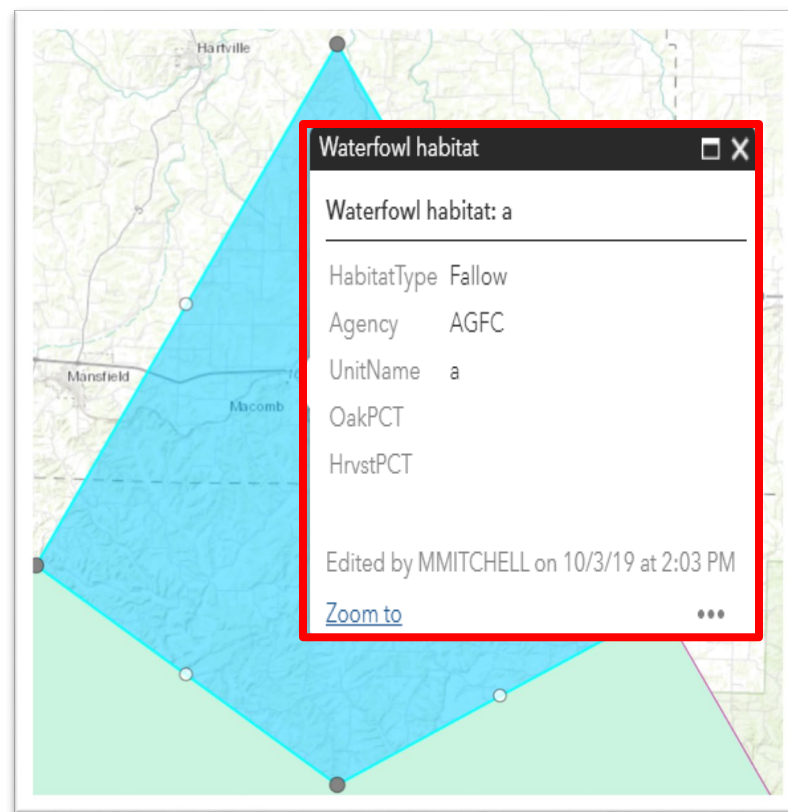
Year Reforested:

Year Created:

Comments:

LMVJV Unit #: WF010
Area: Bayou Cocodrie NWR
State: LA
Acres: 835.61118
Id: 3541
Date of Last Update: 09272011

Accessibility FOIA Privacy Policies and Notices



Waterfowl habitat

Waterfowl habitat: a

HabitatType Fallow

Agency AGFC

UnitName a

OakPCT

HrvstPCT

Edited by MMITCHELL on 10/3/19 at 2:03 PM

[Zoom to](#)



LMVJV Water Management Unit Tool

New – Shorebird Module!!

A screenshot of the "Water Management Unit Tool" web application. The interface includes a search bar at the top with the text "Find address or place". Below the search bar is a map of the Lower Mississippi Valley region, showing various towns like Springfield, Northview, and Seymour. A large purple polygon is overlaid on the map, representing a water management unit. A circular inset image of a shorebird (a wading bird) is positioned over the map. A popup window titled "(1 of 2)" is open, displaying the following information:

Shorebird habitat: a
CoverType Shorebird habitat
Agency AGFC
UnitName a
Edited by Esri_Anonymous 2 hours ago
Zoom to

The popup also includes a close button (X) and a play button (▶). The map interface includes standard navigation controls like zoom in (+) and zoom out (-) buttons, and a scale bar at the bottom left showing 0mi.

LMVJV Water Management Unit Tool







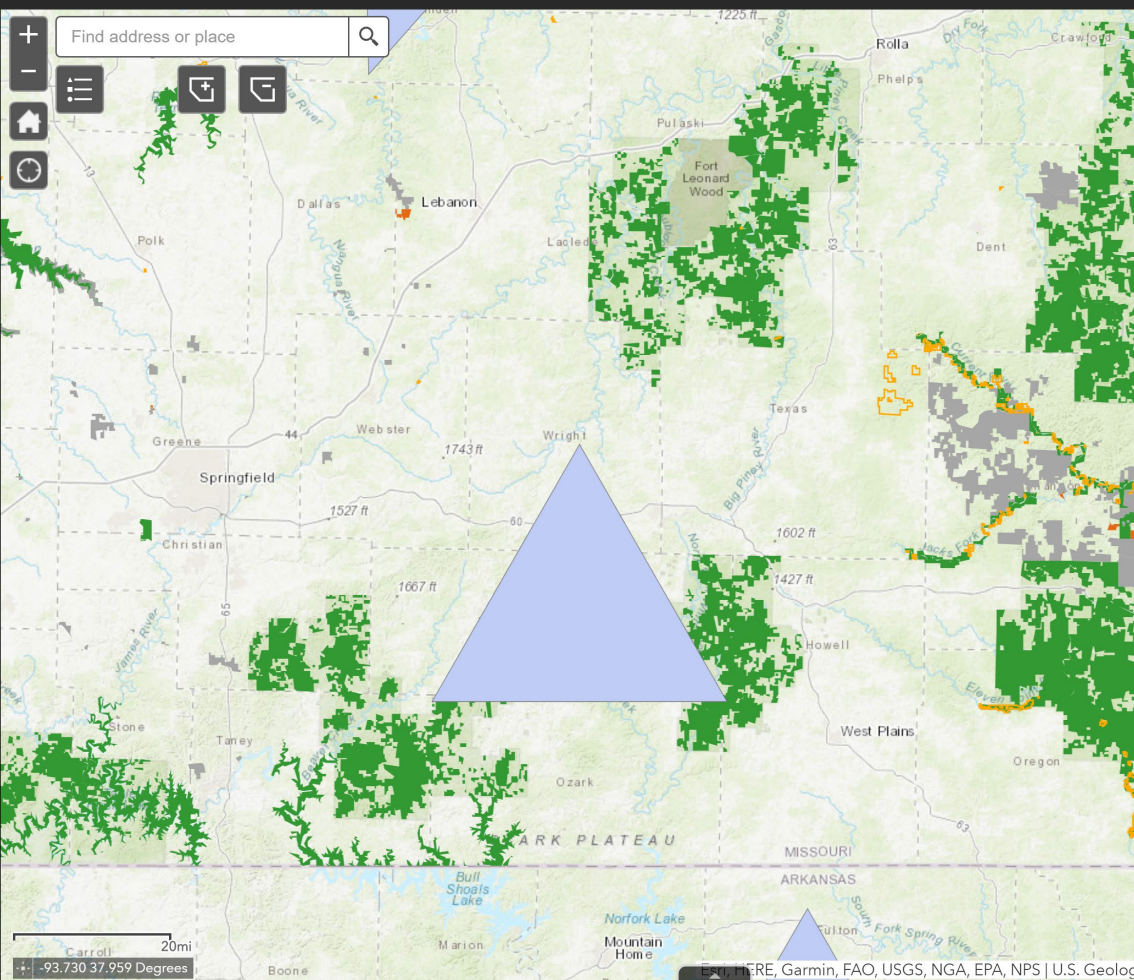
Water Management Unit Tool Lower Mississippi Valley Joint Venture

Find address or place

ChangeWebMap

Habitat map

-  **Past WMU**
by mmitchell@ducks.org_duinc
10/15/2019, 9:05:11 AM
[More details](#)
-  **Shorebird habitat**
by mmitchell@ducks.org_duinc
10/15/2019, 9:04:03 AM
[More details](#)
-  **Water Management Unit**
by mmitchell@ducks.org_duinc
10/15/2019, 9:04:28 AM
[More details](#)
-  **Waterfowl habitat**
by mmitchell@ducks.org_duinc
10/15/2019, 9:04:46 AM
[More details](#)



Ark Plateau

MISSOURI

ARKANSAS

Carroll 20mi

-93.730 37.959 Degrees

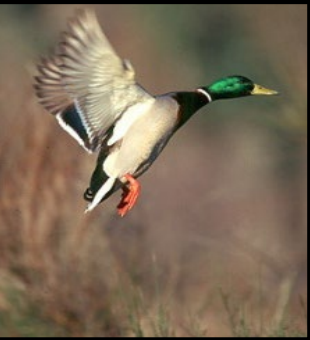
Garmin, FAO, USGS, NGA, EPA, NPS | U.S. Geolog

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LMVJV Water Management Unit Next Steps

- Testing and debugging through early November
- Landing page and definitions page
- Requires new input of polygons into system

DATA CALL!!



LMVJV SCIENCE

Science Investment Priorities and Recommendations



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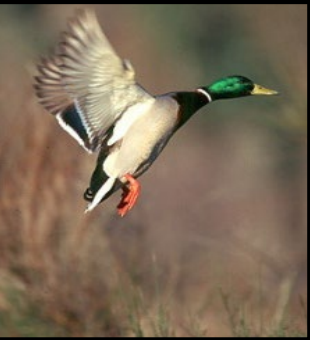


Science Investment

- LMVJV has ~\$50,000 to make decisions for funding of research
- Gathered Science Team for call on 23 September

Short-term: Invest in a known project that needs additional funding now

Long-term: Request what we want to spend money on based on unfunded Science Priorities with the existing money potentially only being a part of that overall funding need



Science Priorities



LOWER MISSISSIPPI VALLEY JOINT VENTURE
SCIENCE PRIORITIES: 2015-2020



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LOWER MISSISSIPPI VALLEY JOINT VENTURE
SCIENCE INTEGRATION AND EVALUATION TEAM
OCTOBER 2014

Lower Mississippi Valley Joint Venture
Operational Plan

2018-2023

for a

*A landscape supporting healthy native bird
populations across the LMJVJ*



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October 2018

Science Priorities



WATERBIRDS



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Science Investment – Next Steps



- Investigate what is out there in terms of waterbird projects and potentially what could be done with funding
- Bring ideas to the Science Team after the Fall Management Board meeting
- Science Team will plan for a late spring/early summer in-person meeting to discuss an update of the Science Priorities and potential funding for subsequent years

