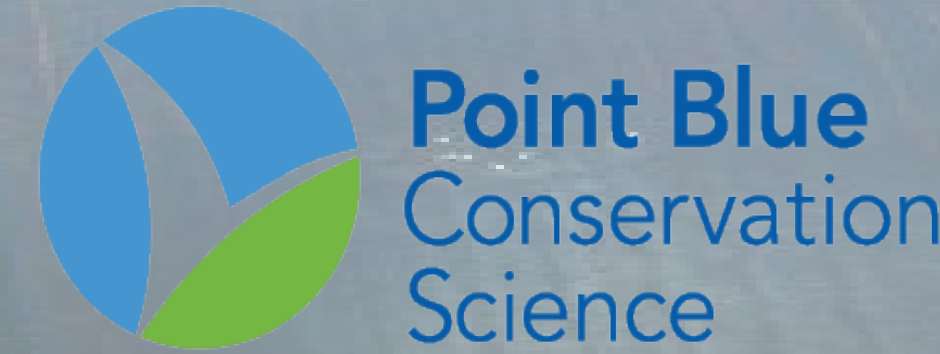
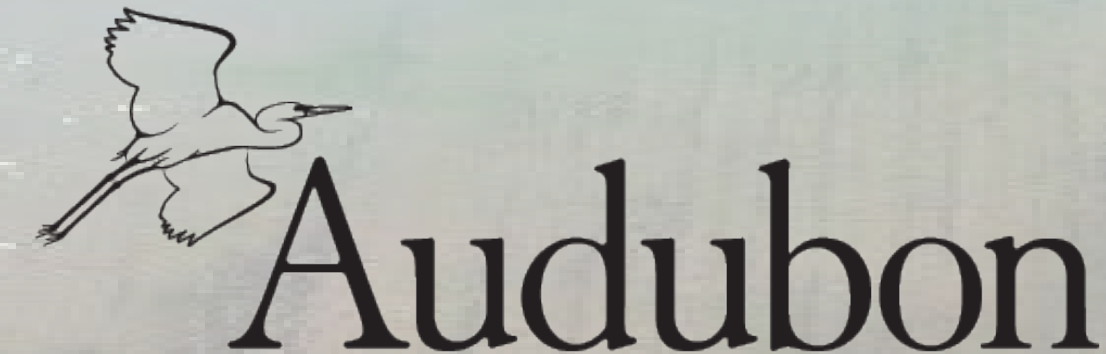




# BirdReturns

An incentive program that compensates farmers and wetland managers in the Central Valley for providing habitat for migratory birds.

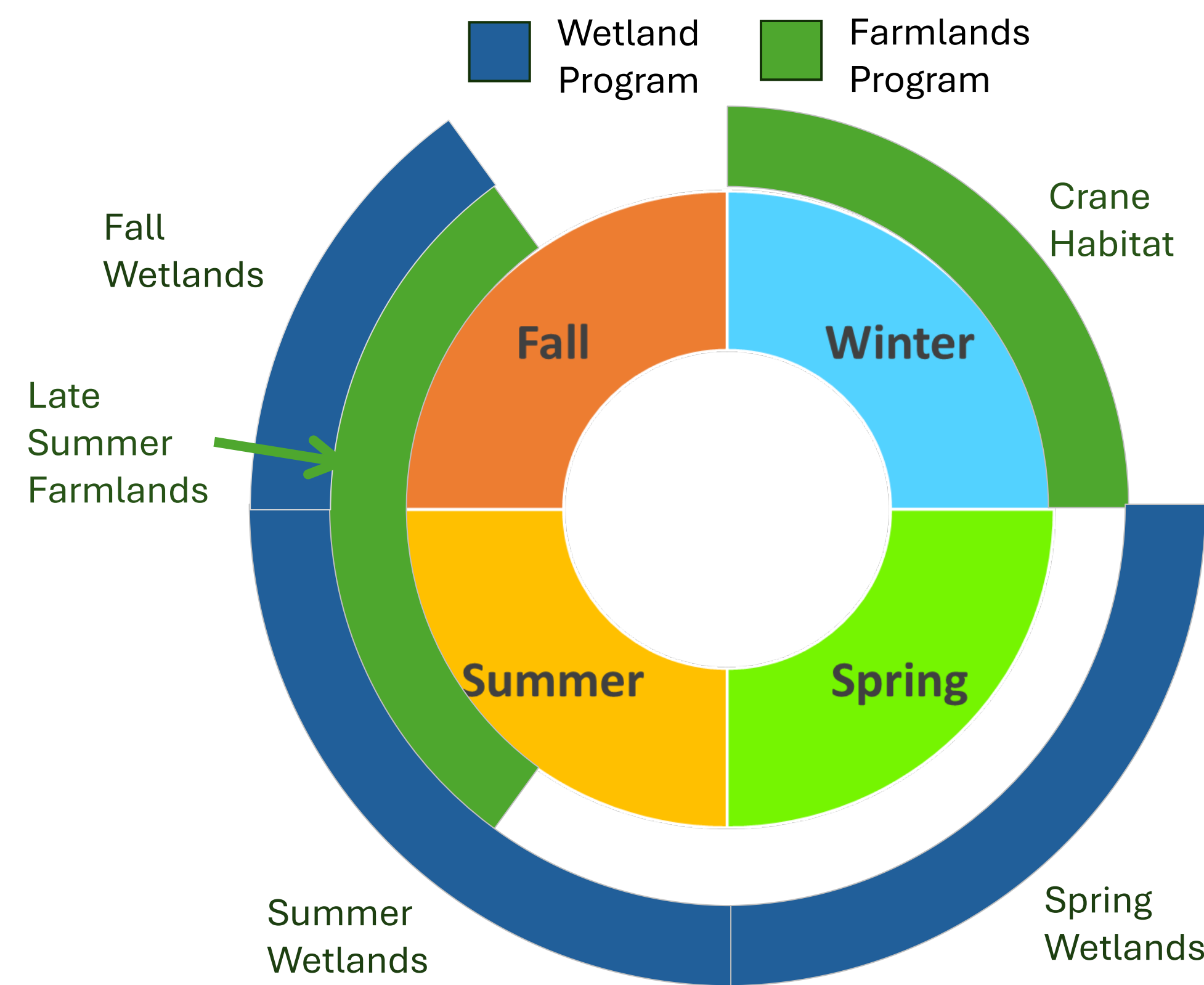


**Problem:**

- 96% of CA historic wetlands have been lost.
- Shorebird populations in N. America have declined 40% in the past 50-years (~17 M birds lost).
- Recent surveys show a sharp decline in sandhill cranes in the Central Valley.

**Solution:**


Creating additional habitat where and when it is needed most.



FARMLANDS	
Late Summer	Sandhill Cranes
<ul style="list-style-type: none"> <li>• <b>Practice &amp; Purpose:</b> Shallow-flooded (mudflat-4") habitat for migrating shorebirds (e.g., sandpipers, plovers, avocets, stilts, etc.)</li> <li>• <b>Application/Bid:</b> Competitive bidding process</li> <li>• <b>Geography:</b> Sacramento Valley and Sacramento-San Joaquin Delta</li> <li>• <b>Habitat Timing:</b> Mid-July through September (choose a 5-week habitat enrollment)</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Practice &amp; Purpose:</b> Flooded roost habitat (resting) and dry forage habitat (feeding) for overwintering greater sandhill cranes</li> <li>• <b>Application/Bid:</b> Fixed price</li> <li>• <b>Geography:</b> Sacramento Valley and Sacramento-San Joaquin Delta</li> <li>• <b>Habitat Timing:</b> October through mid-March (choose an 8-week minimum enrollment)</li> </ul>


WETLANDS		
Summer	Spring	Fall
<ul style="list-style-type: none"> <li>• <b>Practice &amp; Purpose:</b> Flood up wetland to provide nesting and brood-rearing habitat for shorebirds and waterfowl.</li> <li>• <b>Application/Bid:</b> Fixed Price</li> <li>• <b>Geography:</b> Suisun Marsh, Sacramento Valley, Delta, Tulare, and San Joaquin Valley</li> <li>• <b>Habitat Timing:</b> April to July or April to October</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Practice &amp; Purpose:</b> Gradually draw down wetland to provide spring flooded habitat for migrating shorebirds and waterfowl.</li> <li>• <b>Application/Bid:</b> Fixed Price</li> <li>• <b>Geography:</b> Suisun Marsh, Sacramento Valley, Delta, Tulare, and San Joaquin Valley</li> <li>• <b>Habitat Timing:</b> Choose 1 week in April to draw down wetland</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Practice &amp; Purpose:</b> Gradually flood up wetland to provide early flooded habitat for migrating shorebirds and waterfowl arriving early or molting.</li> <li>• <b>Application/Bid:</b> Competitive bidding process</li> <li>• <b>Geography:</b> Sacramento Valley, Delta, Tulare, San Joaquin Valley, Suisun Marsh (pilot)</li> <li>• <b>Habitat Timing:</b> August to October</li> </ul>

## 10 Years of BirdReturns and Beyond




**2014 – The Inception of BirdReturns**

- BirdReturns was launched to fill the wetland habitat gap for shorebirds during fall and spring migration by engaging farmers to flood agricultural lands.



**Expansion**

- Over the next 10 years, BirdReturns added a private wetland program; and increased habitat acreage, species targets, times of year, geography, land cover types, and landowner participations.



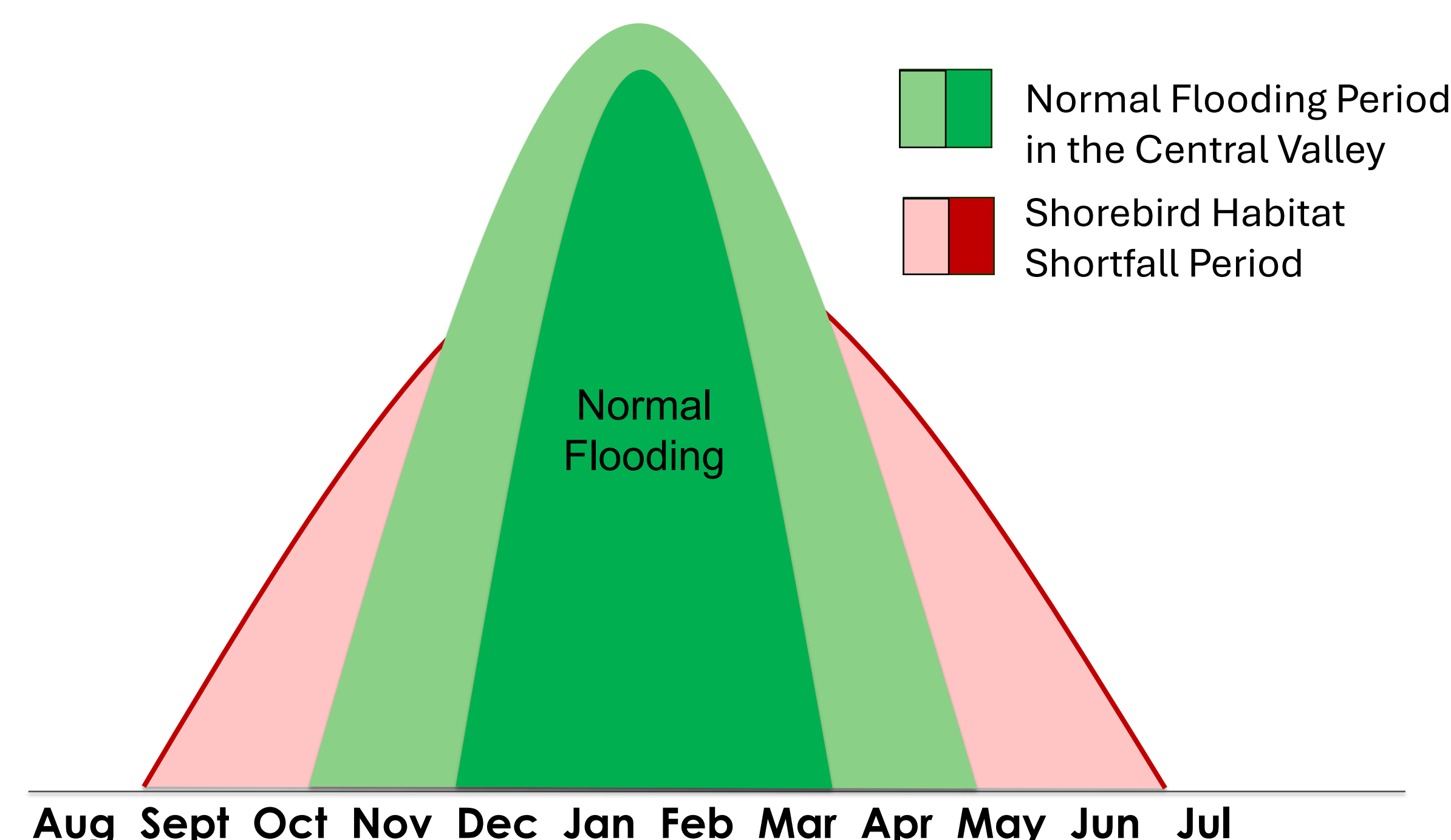
**Working with the Partnership**

- Beginning in 2021 BirdReturns became an initiative of the Migratory Bird Conservation Partnership with support from CDFW.



Examples of Central Valley Shorebirds

### CV Shorebird Habitat Shortfall Period



Partnership Impacts (2021-2024)	
Wetlands	Farmlands
<ul style="list-style-type: none"> <li>• <b>Species Diversity:</b> <ul style="list-style-type: none"> <li>• 28 species of <u>shorebirds</u></li> <li>• 79 <u>total bird species</u></li> </ul> </li> <li>• <b>Total Birds:</b> <ul style="list-style-type: none"> <li>• 54,760 <u>shorebirds</u></li> <li>• 128,124 <u>total birds</u> (9.2 birds/hectare)</li> </ul> </li> <li>• <b>Habitat:</b> 52,333 acres</li> <li>• <b>Number of Participants:</b> 144 unique participants</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Species Diversity:</b> <ul style="list-style-type: none"> <li>• 25 species of <u>shorebirds</u></li> <li>• 65 <u>total bird species</u></li> </ul> </li> <li>• <b>Total Birds:</b> <ul style="list-style-type: none"> <li>• 94,531 <u>shorebirds</u></li> <li>• 36,200 <u>sandhill cranes</u></li> <li>• 238,749 <u>total birds</u> (14.6 birds/hectare)</li> </ul> </li> <li>• <b>Habitat:</b> 23,437 acres</li> <li>• <b>Number of Participants:</b> 50 unique participants</li> </ul>