



# LOWER COLORADO RIVER, 2010 UPDATE

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ARIZONA FISH & WILDLIFE  
CONSERVATION OFFICE

# OUTLINE

- ◉ **Lower Colorado River National Wildlife Refuges**
- ◉ **Lake Mohave**
- ◉ **Lake Havasu**
- ◉ **Emerald Canyon Golf Course**
- ◉ **Needles Golf Course**
- ◉ **Giant Salvinia**

# IMPERIAL NATIONAL WILDLIFE REFUGE

## Pond 1 & 3 Renovation



# CIBOLA NATIONAL WILDLIFE REFUGE

## Three Fingers



- 135 razorbacks stocked in Dec 2006
- Continue monitoring water

# CIBOLA NATIONAL WILDLIFE REFUGE

## High Levee Pond

### ○ Stocking

- > Razorback 1,252 RBS Oct 2008
- > Bonytail 535 Dec 2008



### ○ Population

- > December 2009  
Razorback 381,  
483 mm

# EMERALD CANYON GOLF COURSE

## Population



- > razorback 123, avg. 377 mm  
January 2010 Pond 1
- > Fish kill May 2009 pond 11



# NEEDLES GOLF COURSE

## Surveys



- ◉ Stocking
  - > 500 bonytail Dec 2007
  - > 1000 razorback Feb 2008
- ◉ January 2010 survey conducted
- ◉ 6 bonytail YOY  
average length 143mm
- ◉ 4 razorback average  
length 481mm

# BILL WILLIAMS RIVER NWR

## Office Cove



### ○ Stocking

- > May 2005,  
4,000 RBS

### ○ Population

- > November 2010,  
226, 432 mm



# BILL WILLIAMS RIVER NWR



Six bonytail chub, 2010

# HAVASU NATIONAL WILDLIFE REFUGE Beal Lake



- Stocking
  - > Razorback 610 Feb 2010
  - > Razorback 400 Nov 2010
- Continue water quality monitoring

# LAKE HAVASU

## Stocking



- 4,032 bonytail April, December 2010

# LAKE HAVASU

## Native Fish Roundup



- Participated in the 10 annual native fish roundup on Lake Havasu in February
- Native fish capture made up 2.3% of our total capture.





# LAKE MOHAVE Razorback Roundup

- Participated in the annual RBS roundup on Lake Mohave in March
- 160 (Avg. size of 529 mm) RBS were sampled

# EMERALD CANYON GOLF COURSE

## Stocking

> razorback 1002, Nov 2007  
pond 1

> razorback 505, Oct 2008  
pond 11

> bonytail 250, Dec 2007  
pond 11



# ALAMO LAKE

## Monthly Water Quality

- ◉ Contract with US Army Corps
  - > Limnology measurements monthly
  - > General Chemistry 8 months
  - > Chlorophyll 5 months
  - > Additional Chemistry 4 months
  - > Bacteriology 8 months





# PARKER DAM to LA PAZ COUNTY PARK

## ◎ Stocking

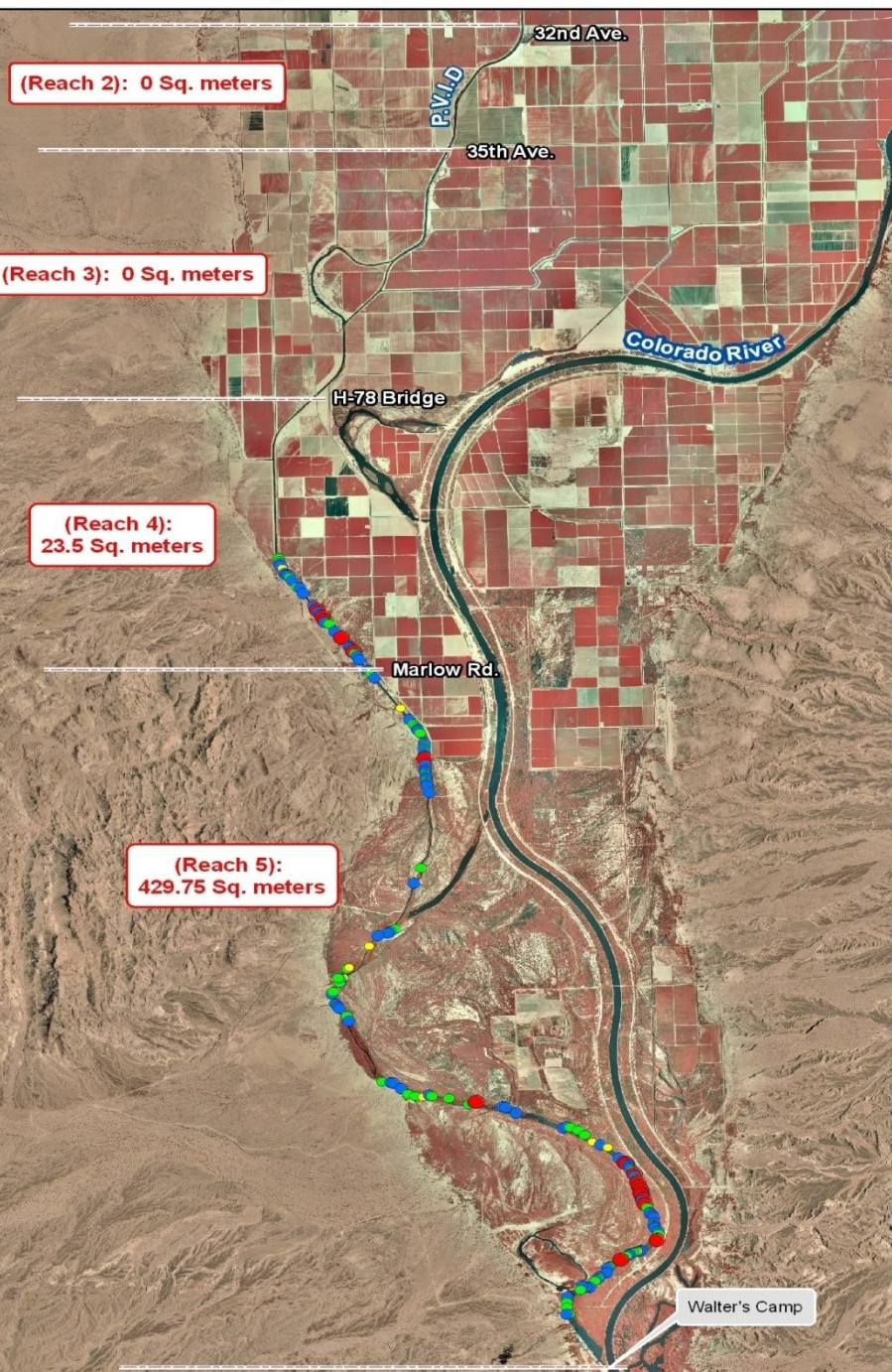
- > razorback 6093, 2010
- > bonytail 961, 2010



# PARKER DAM to LA PAZ COUNTY PARK



- January, December 2010 survey conducted
- 20 bonytail average length of 337mm
- 15 razorback average length of 521mm



# Giant Salvinia

- May – Oct.
  - > Reach 2-0 sq meters
  - > Reach 3-0 sq meters
  - > Reach 4=23.5 sq meters
  - > Reach 5=429.75 sq meters

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