

Introduction to Agricultural Impacts  
Analysis of the Proposed Yolo Bypass  
Conservation Measure: Crop Patterns  
and Scenarios

Petrea Marchand, Yolo County  
August 25, 2011

# Outline

- Yolo Bypass crops: 2005-2009
- Scenarios
  - Inundation end dates
  - Model choice
  - Flow rates and acreage
- Next Steps
- Yolo County Requests

# Yolo Bypass Crops 2005-2009: Overview

- Best data available
- Representative of Bypass variation:
  - Covers high and low crop prices
  - Covers wet and dry years
  - Covers years the Fremont Weir did and did not overtop
- Work in progress

# Yolo Bypass Crops -2005



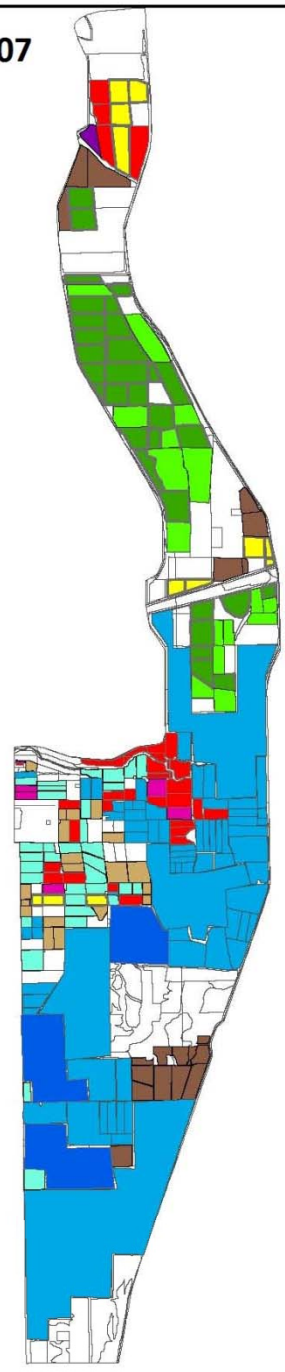
- RICE
- WILD RICE
- PASTURE
- PASTURE-IRR
- ALFALFA
- SAFFLOWER
- WHEAT
- CORN
- TOMATO PROCESS
- SUNFLOWER
- MELONS; VINE SEED

Yolo Bypass Crops - 2006



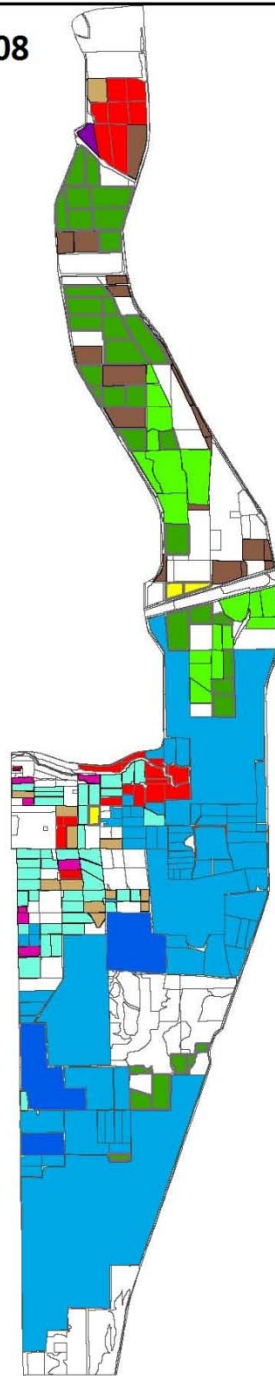
- RICE
- WILD RICE
- PASTURE
- PASTURE-IRR
- ALFALFA
- SAFFLOWER
- WHEAT
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# Yolo Bypass Crops - 2007



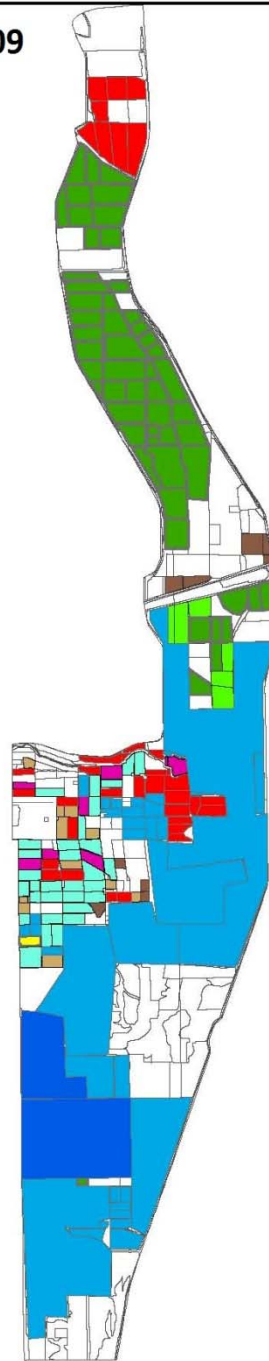
- RICE
- WILD RICE
- PASTURE
- PASTURE-IRR
- ALFALFA
- SAFFLOWER
- WHEAT
- CORN
- TOMATO PROCESS
- SUNFLOWER
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# Yolo Bypass Crops - 2008



- RICE
- WILD RICE
- PASTURE
- PASTURE-IRR
- ALFALFA
- SAFFLOWER
- WHEAT
- CORN
- TOMATO PROCESS
- SUNFLOWER
- MELONS; VINE SEED

# Yolo Bypass Crops - 2009



- RICE
- WILD RICE
- PASTURE
- PASTURE-IRR
- ALFALFA
- SAFFLOWER
- WHEAT
- CORN
- TOMATO PROCESS
- SUNFLOWER
- MELONS; VINE SEED

# Scenarios: Overview

- Five crop years: 2005-2009
- Four inundation end dates:
  - February 15th
  - March 24th
  - April 10th
  - May 15th
- Two flow rates: 2,000 cfs and 5,000 cfs
- One model: HEC-RAS
- Nigiri option: 7,500 acres
- Development of subregions to address variation in length of time needed to drain fields
- Total of 60 scenarios covering a broad range of possible cropping and inundation patterns

# Scenarios: Inundation End Date

## 1. February 15<sup>th</sup>

- Avoids impact
- Fields drain by March 15<sup>th</sup>
- Plant by April 15<sup>th</sup>

## 2. March 24<sup>th</sup>

- Some yield impact
- Fields drain by April 24<sup>th</sup>
- Plant by May 24<sup>th</sup>

## 3. April 10<sup>th</sup>

- Maximum yield impact
- Fields drain by May 10<sup>th</sup>
- Plant by June 10<sup>th</sup>

## 4. May 15<sup>th</sup>

- No planting or lose money

# Scenarios: Models and Inundation Acreages

- HEC-RAS results publicly available and conservative
- Mike-21 results not public
- Inundation acreages
  - 2,000 cfs (17,421 acres)
  - 5,000 cfs (25,077 acres)
  - Nigiri option (7,500 acres)

# Next Steps and Timeline

## Next steps:

- Confirm cropping patterns
- Finalize yield data
- Continue stakeholder outreach
- Estimate impacts

## Timeline:

- Finalize data (mid-September)
- Preliminary results (end of September)
- Public draft (end of October)
- Comment period (October to mid-November)
- Final draft (end of November)

# Yolo County Requests to Planning Team

- Add February 15<sup>th</sup> as one of the options for an inundation end date
- Ask the Fisheries Technical Team to evaluate the fisheries benefits of all four inundation end dates proposed for the agricultural impacts analysis