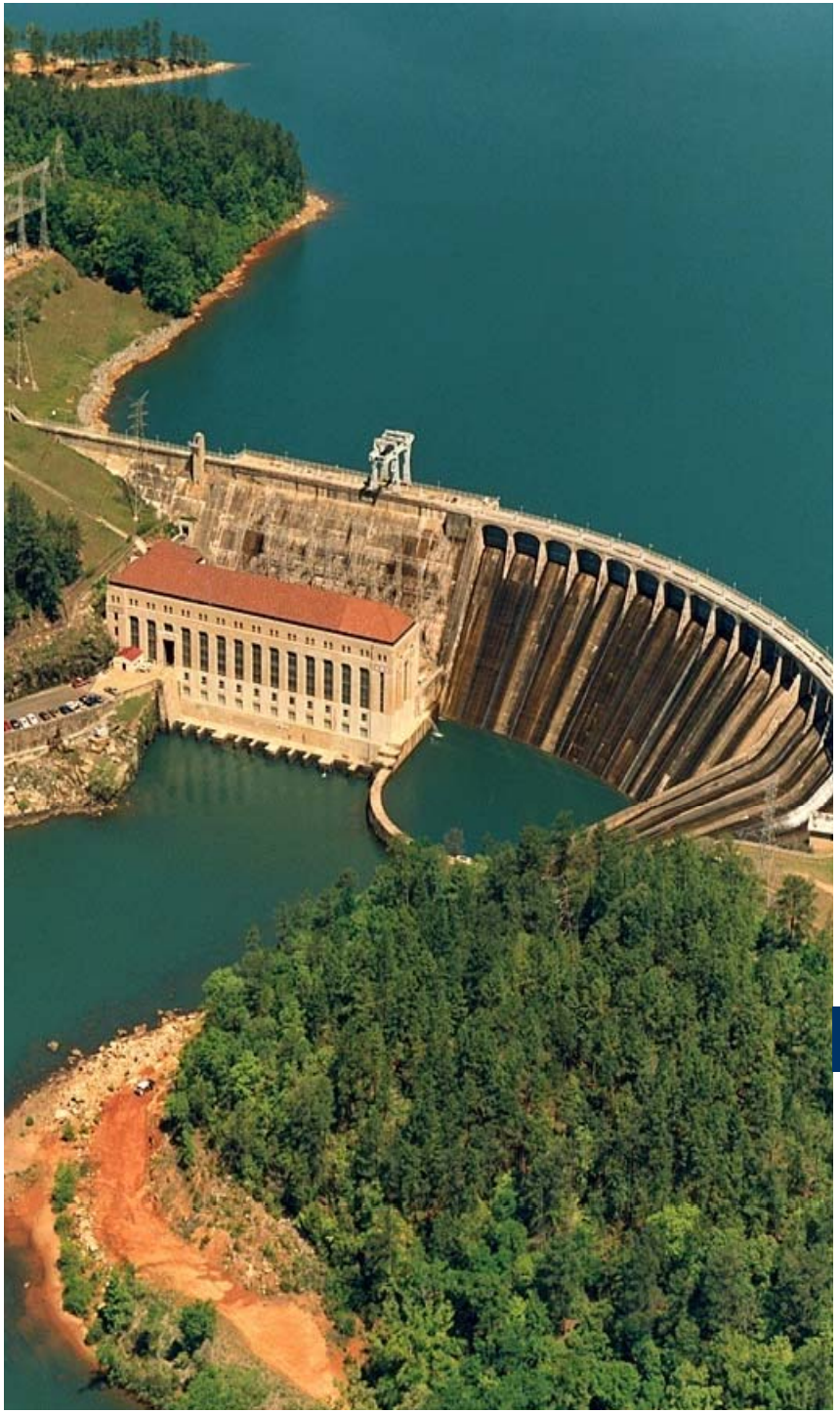

MARTIN DAM RELICENSING

Study 12(f):

Effects of a Rule Curve Change on Downstream Recreation

May 19, 2010

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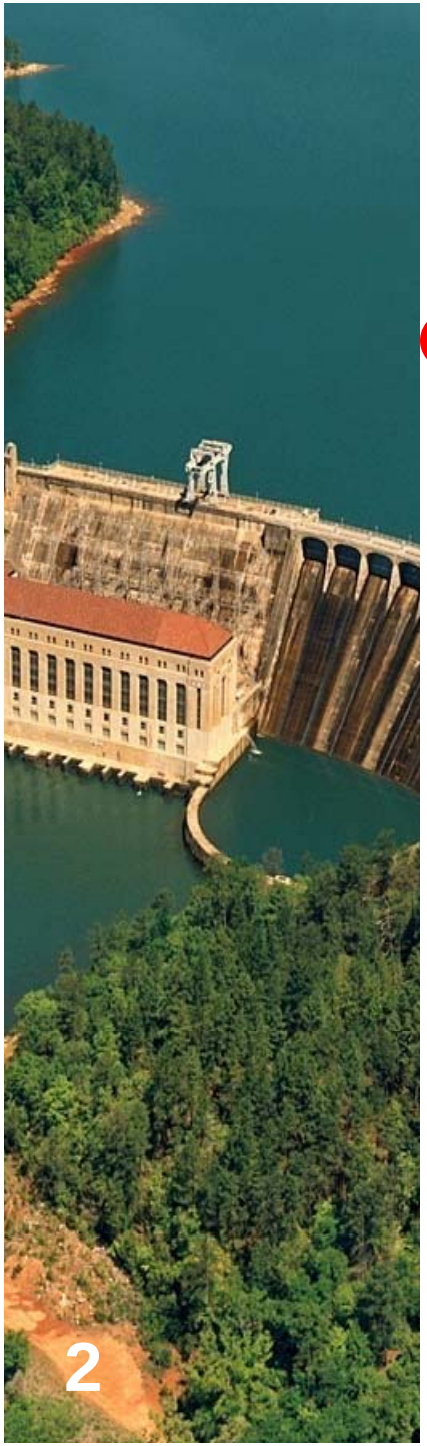

Introduction

- Part of “12 series” studies
- Consider the effects of proposed operational changes
  - Increase in winter pool elevation in one foot increments
  - Earlier spring fill
  - Maintain full pool into Fall

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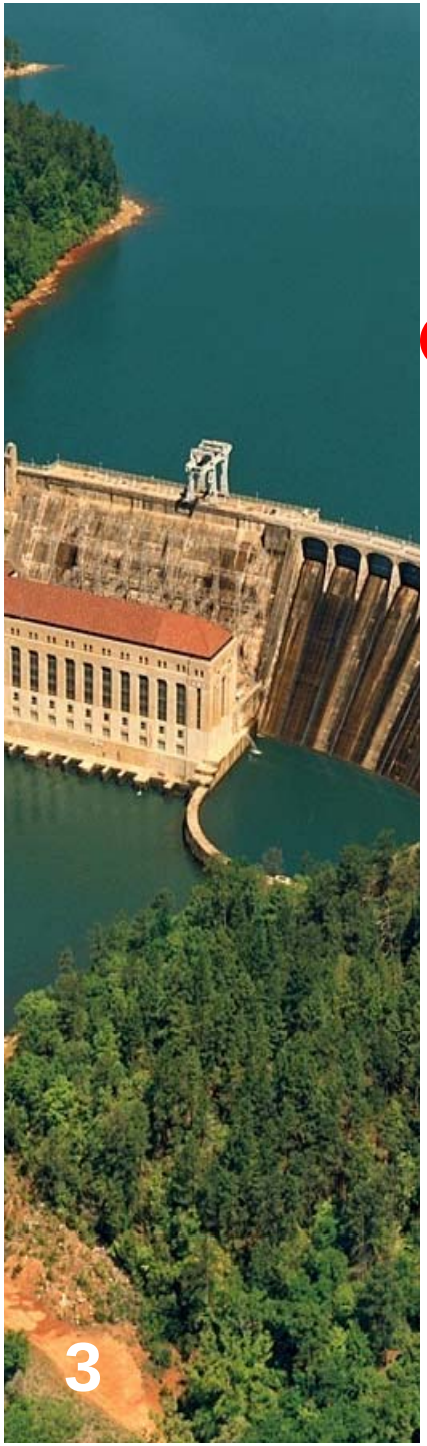

Methods

- Reviewed recreation resources in the river reaches from Martin Dam to RM 12.9 (the FERC Approved geographic scope)
- Identified those recreational resources affected by the estimated changes in flows and/or water levels from the 12a modeling results
- Determined how those recreational resources would be affected

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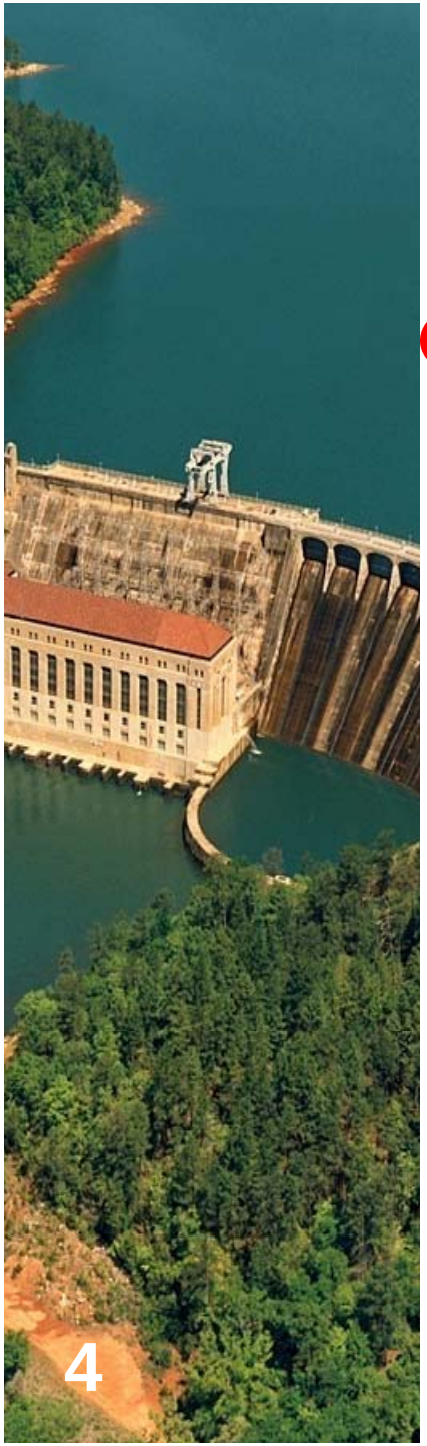

Data Sources

- LiDAR (elevation) data
- Aerial images
- Expert opinion
- HEC-ResSim Model
- HydroBudget Model
- Alabama Whitewater Paddling Guide

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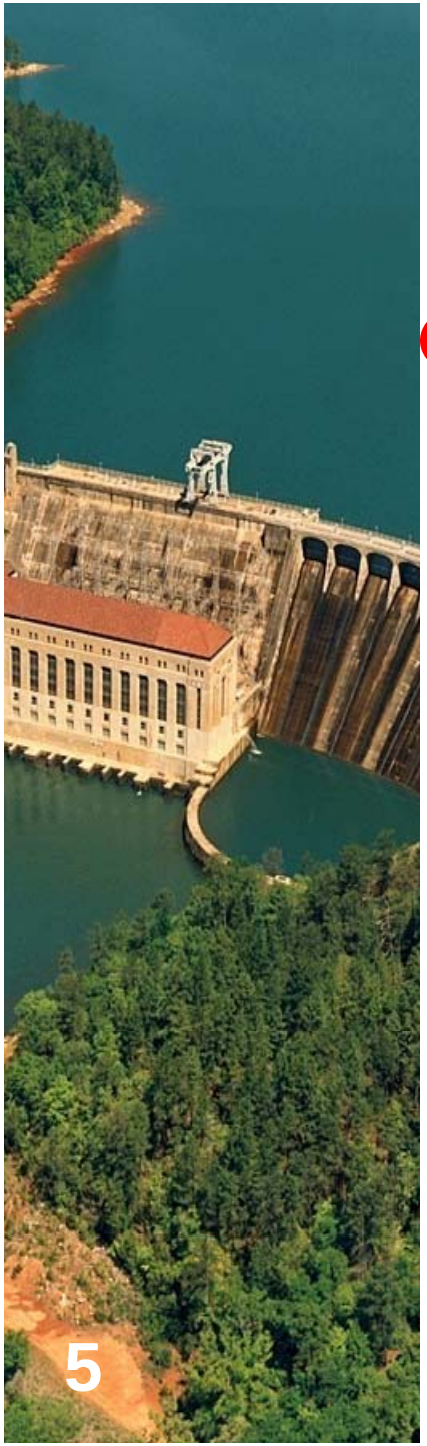

Preferred Whitewater Boating Flows

	CFS	TWO CLASS I SHOALS	STICKY HOLE	BREAKING WAVE HOLES	BIG O	THE FALLS	BIONIC WAVE
Minimum	1,200	Scrape				Fun	
Low	5,000	Good				Extra caution	
Good	10,500	Good	Great			Awesome	
Great	11,500-13,000	Great	Great	Great		Awesome	
	18,000	Washed out	Good			Washed out	
	50,000	Washed out	Good	Washed out	Washed out	Washed out	Washed out

http://www.alabamawhitewater.com/guide/guide_files2/tallapoosa.htm

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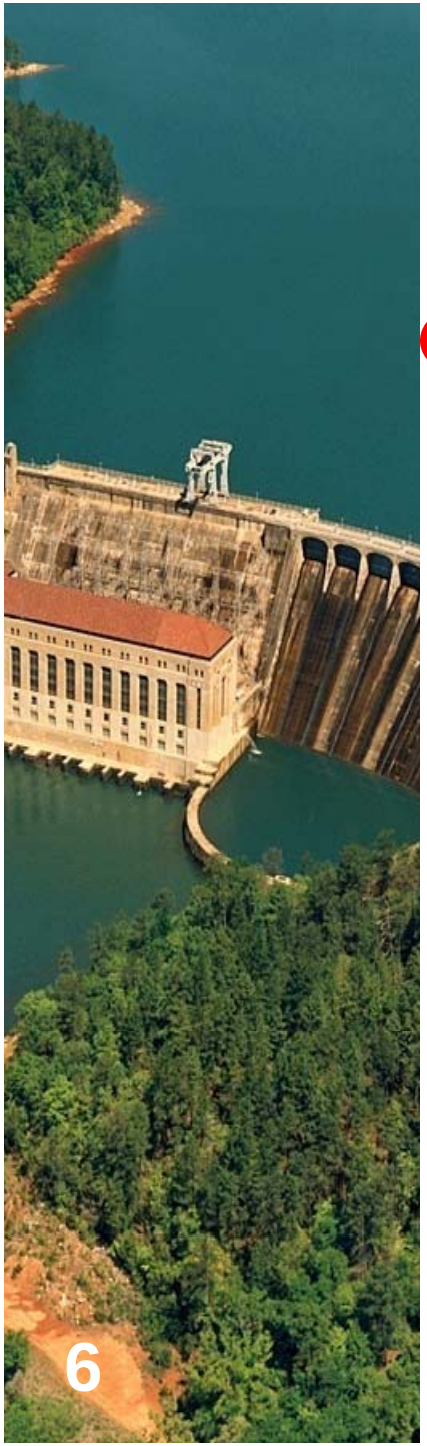

Potential Flooding Effects

- Gold Mine Road and Coon Creek Ramp
  - Increase over baseline for some higher winter pools, early spring fill, and combination of higher winter pool and early spring fill
- Yates Dam Boat Ramp
  - No changes over baseline condition

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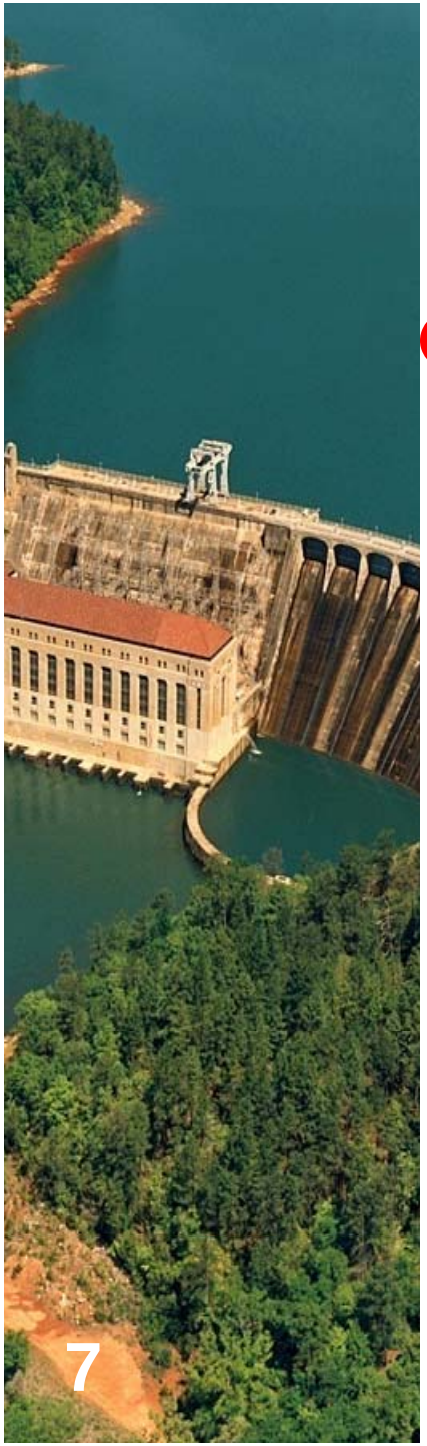

Potential Flooding Effects

- Tallassee Park
  - No changes over baseline condition
- Thurlow Dam Put-in
  - Increase over baseline for some higher winter pools, early spring fill, and combination of higher winter pool and early spring fill
- Tallapoosa Take Out
  - No changes over baseline condition

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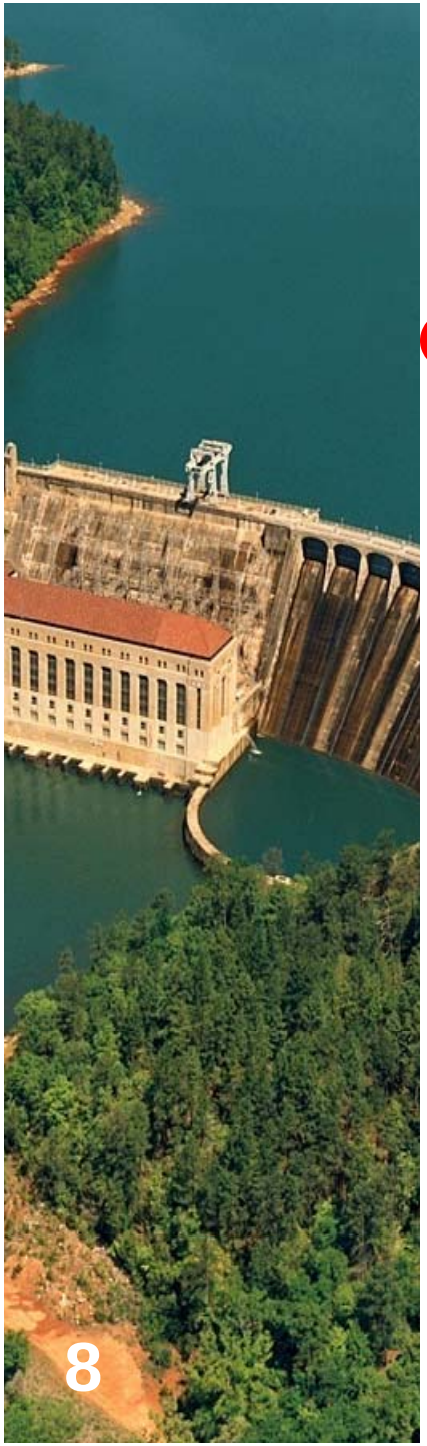

Thurlow Baseline Condition

DAYS SECOND FEET	DRY YEAR	NORMAL YEAR	WET YEAR
1200	152	8	0
1201-5000	206	237	172
5001-10000	8	92	123
10001-13000	0	22	29
13001-18000	0	6	20
>18000	0	3	16

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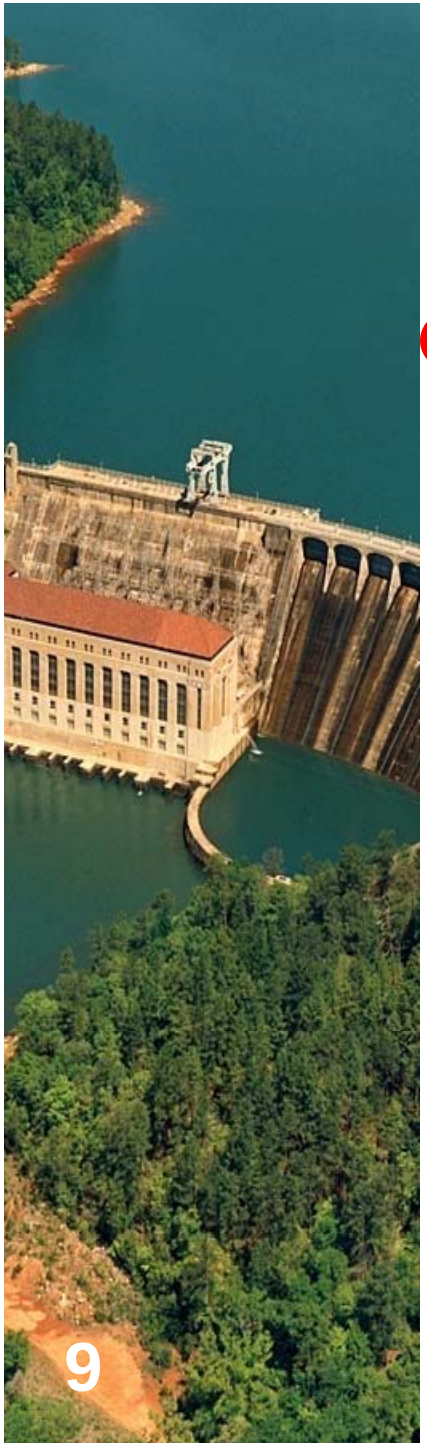
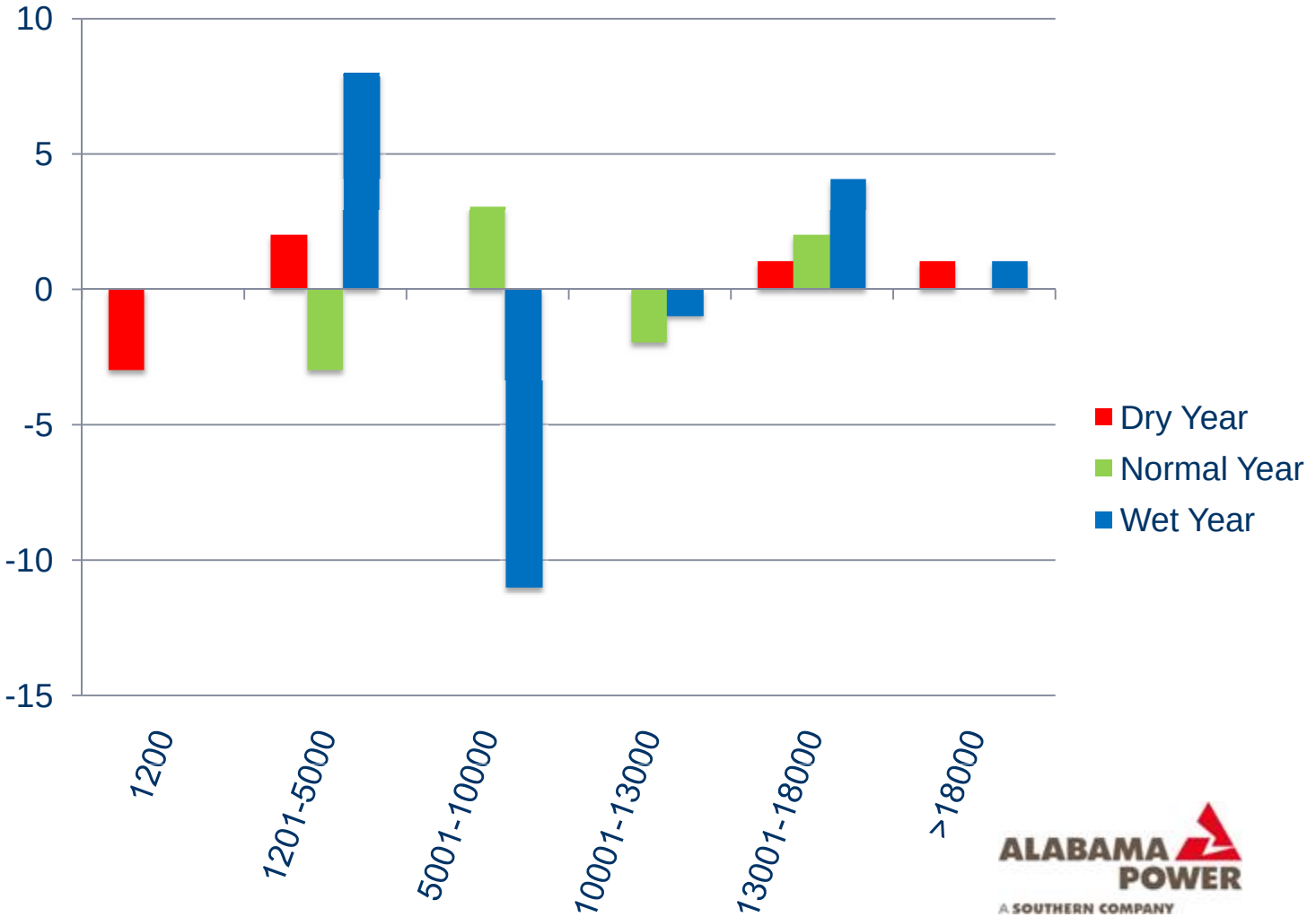


Changes from Baseline for the Number of Days of Specified Flows Below Thurlow Dam – Early Spring Fill



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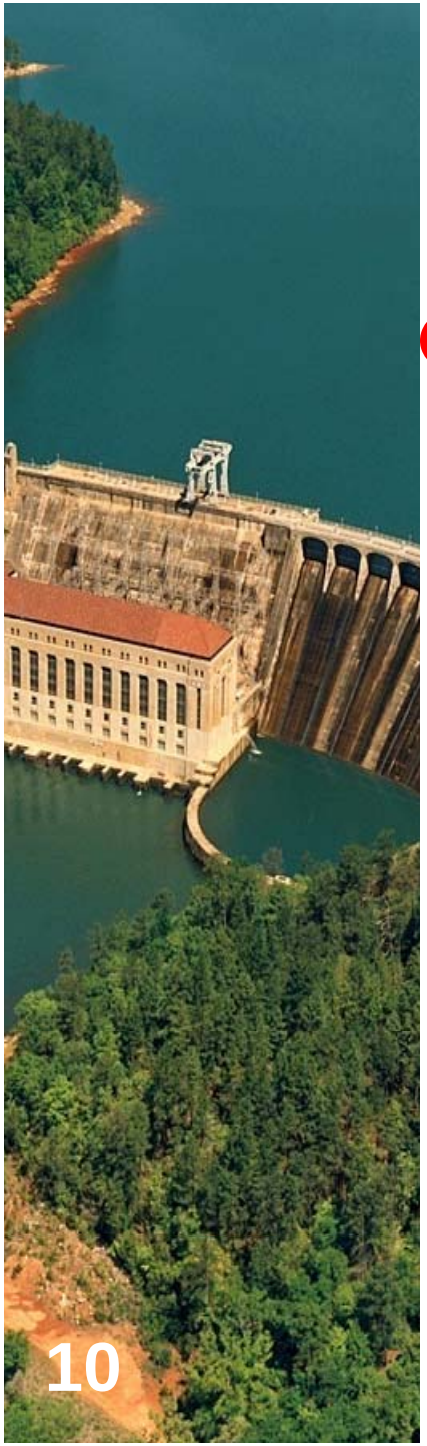
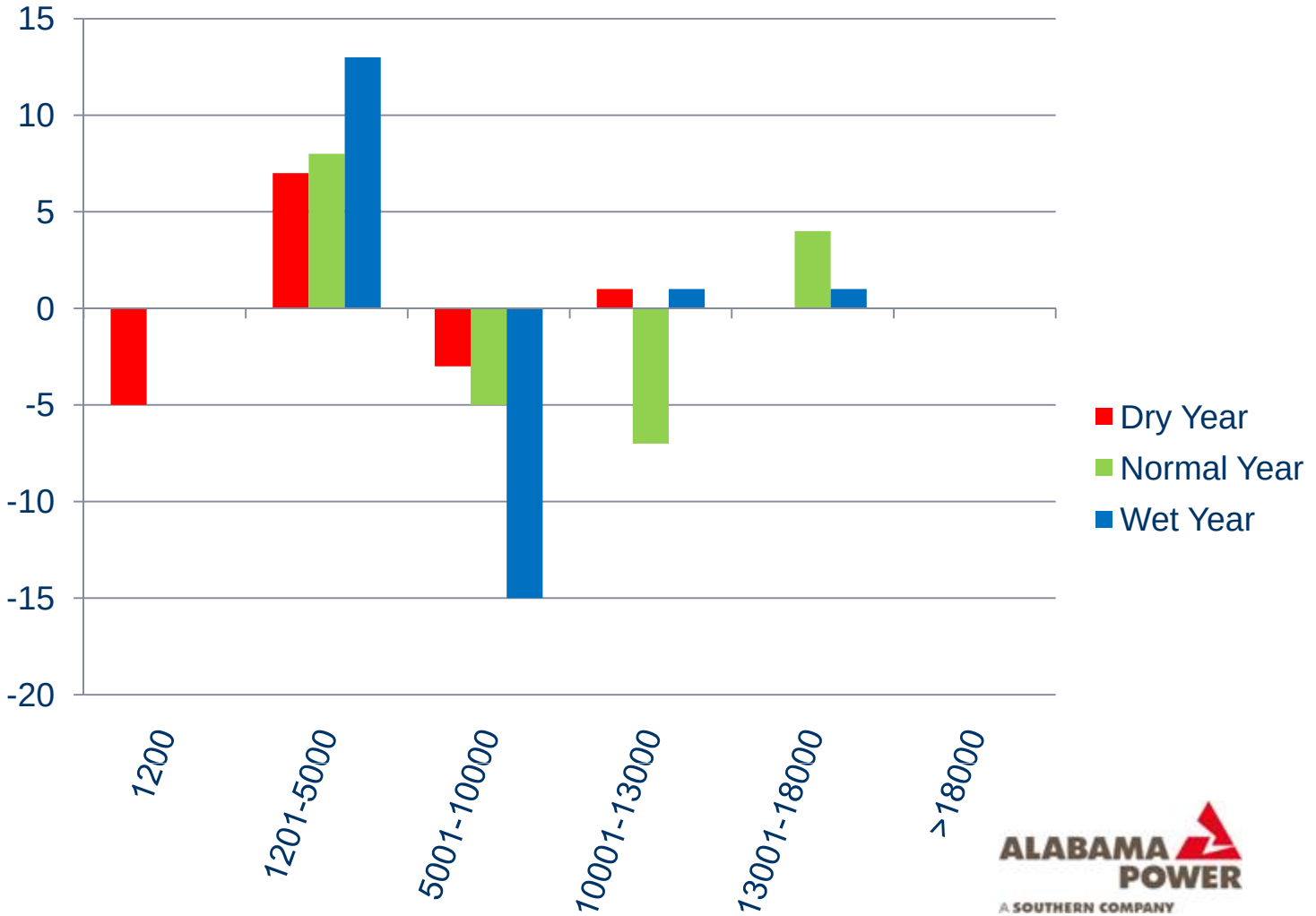


Changes from Baseline for the Number of Days of Specified Flows Below Thurlow Dam – 484 ft MSL



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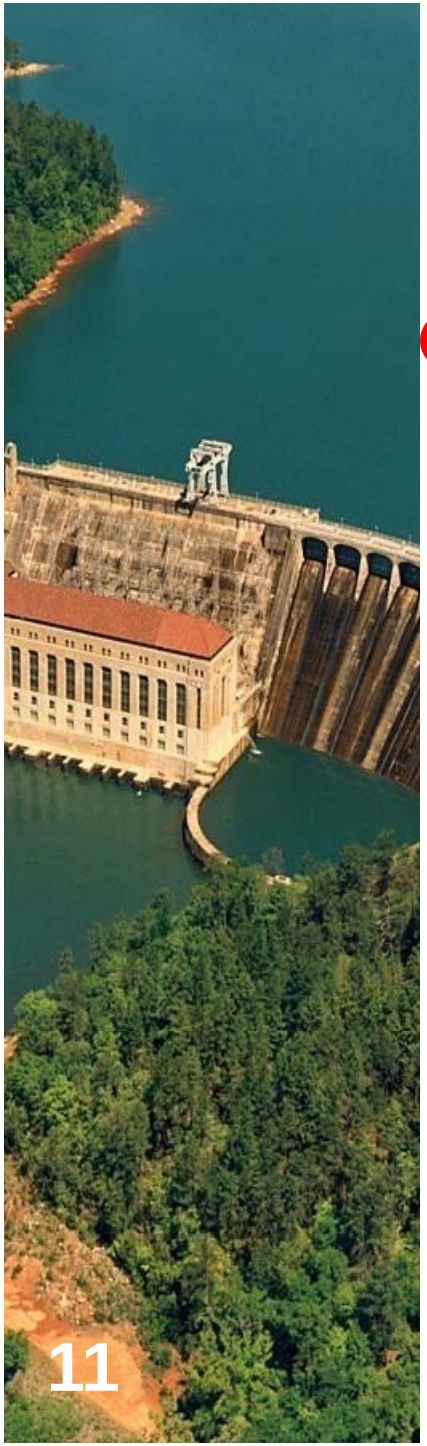
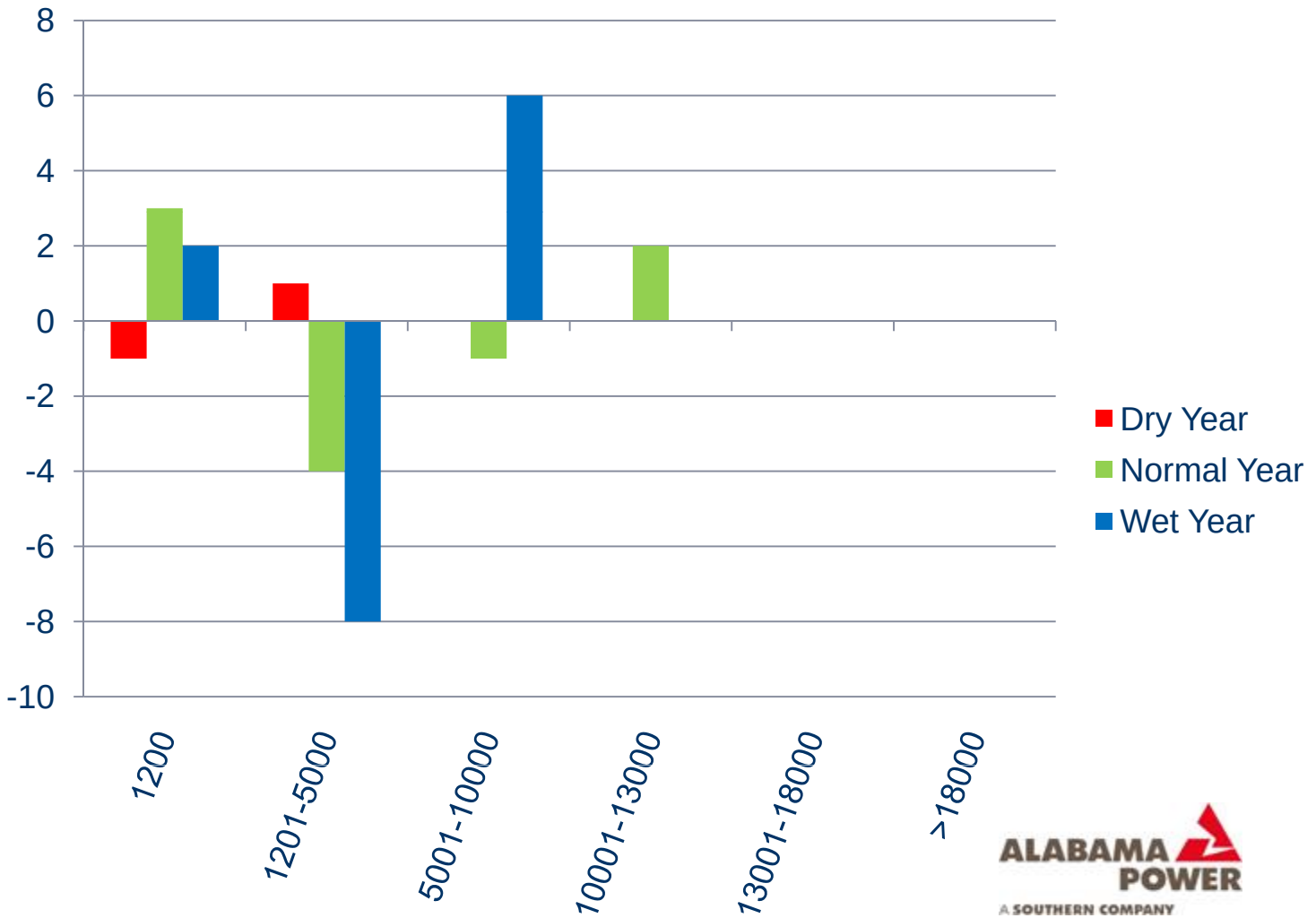


Changes from Baseline for the Number of Days of Specified Flows Below Thurlow Dam – Fall Extension



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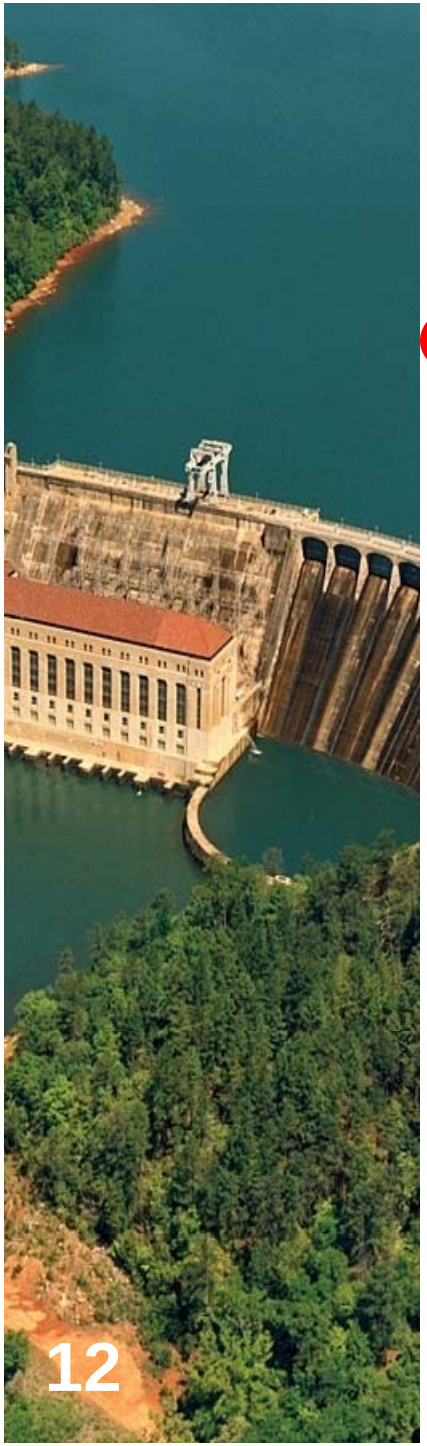

Conclusions

- Minimal flooding effects at the identified recreation sites
  - No adverse effects over baseline at the three sites
  - All effects remain within flood easement on Yates and Thurlow Reservoirs

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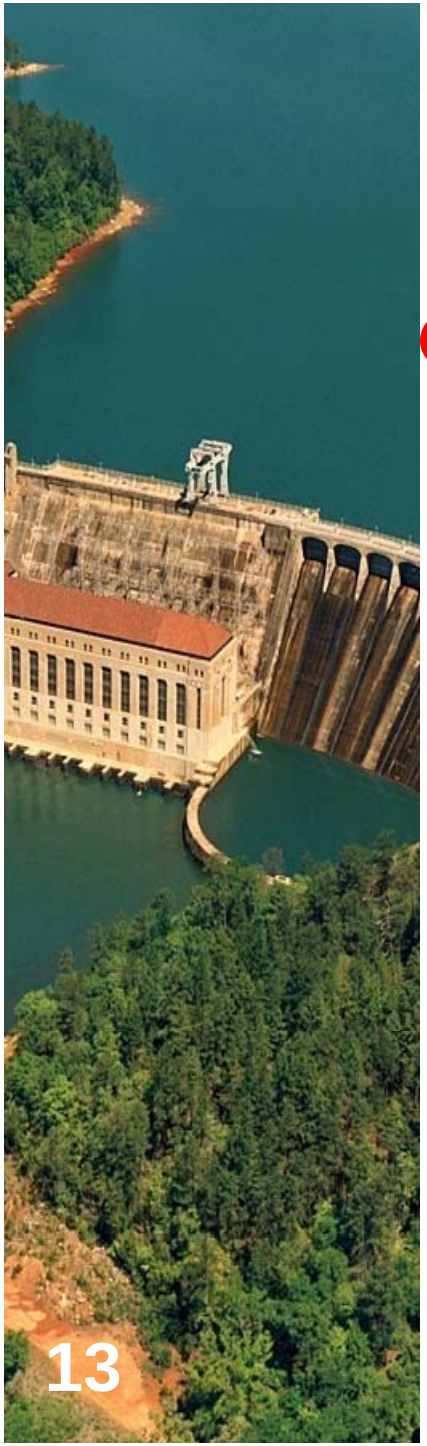

Conclusions

- Various possible effects on whitewater boating in Tallapoosa River
  - Early spring fill had minimal effect
  - Winter pool alternatives generally had negative effects
  - Fall extension mainly affected flows less than 10,000 cfs
  - “Shoulder” season & winter pool generally had negative effects
- Other activities may benefit

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