

Technical Memo 1-2

2016 Yields

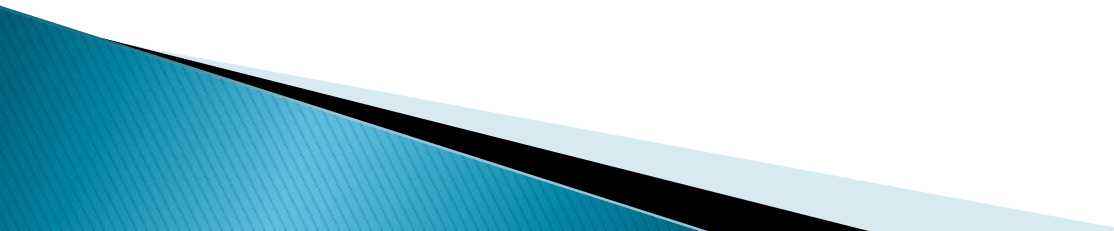
15 November 2016



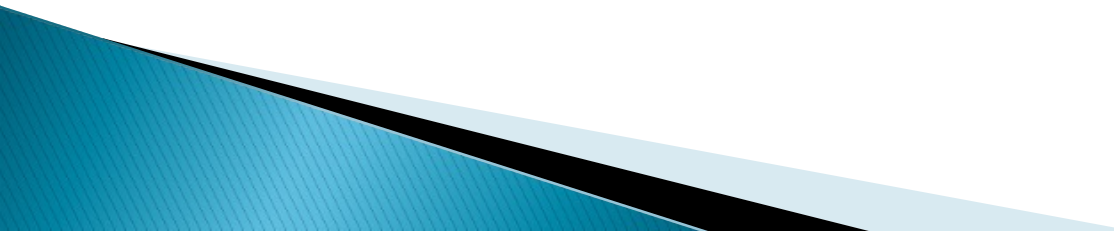
TM-1-2 Tasks

- ▶ Review of updated RiverWare models
- ▶ Incorporation of 2016 environmental flows developed by Espey/Carollo team
- ▶ Development of demand scenarios that
 - Identify the location of potential demands
 - Develop operational criteria to meet those demands
- ▶ Additional modeling

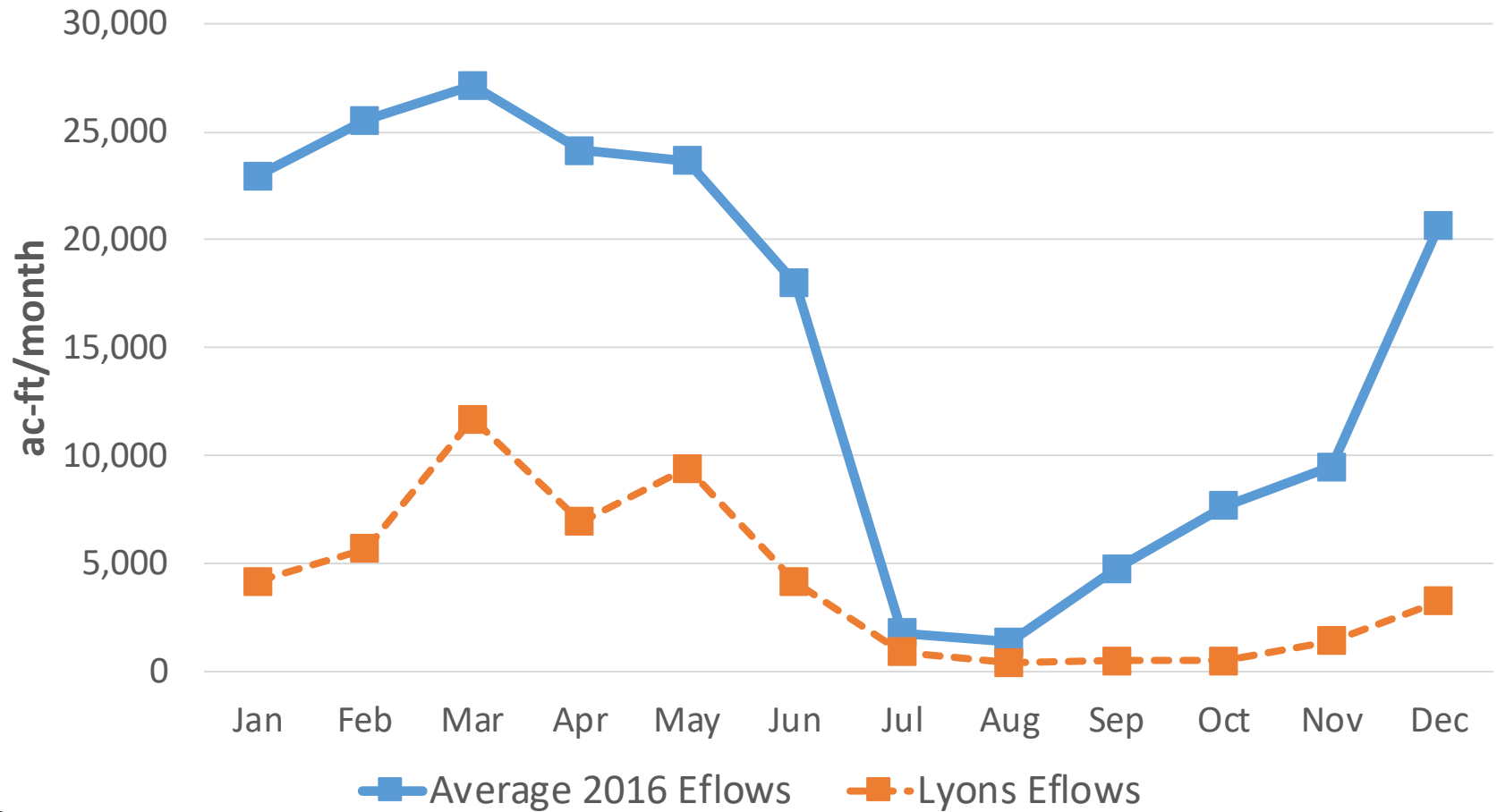
Riverware Model Review

- ▶ SBG and USACE using different versions and assumptions (flood operations versus yield estimating)
 - ▶ Reviewed multiple versions of the USACE Model
 - ▶ Tech memo defining standard set of inputs and assumptions for future runs
 - ▶ Memo Provided as Attachment A of TM1-2
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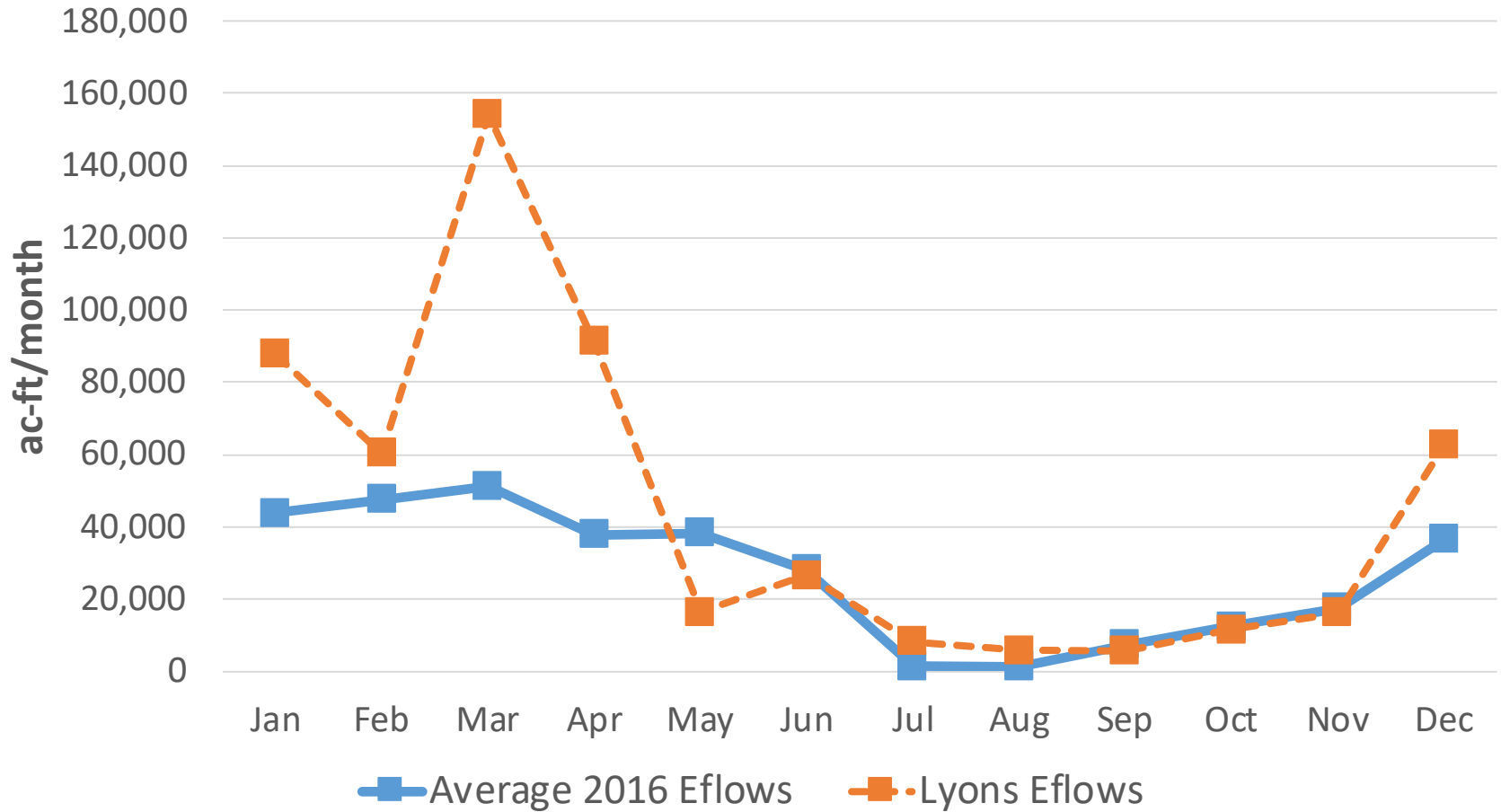
Differences from Previous Modeling

- ▶ New environmental flows
 - ▶ Minor update to Lake Ralph Hall hydrology
 - ▶ No scenarios with summer release of 86 cfs release from Patman
 - ▶ Some scenarios with new Patman senior to Marvin Nichols
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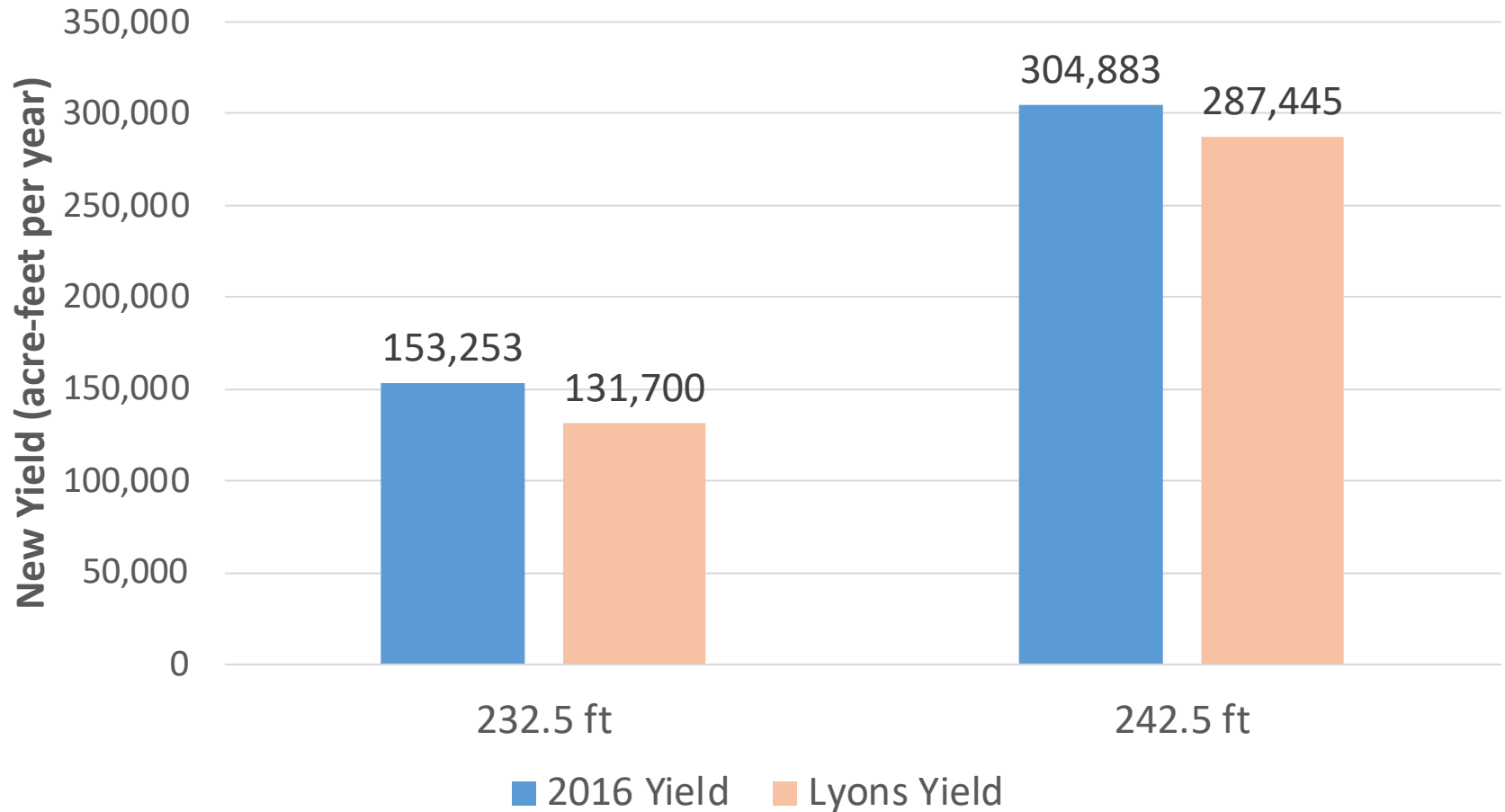
Environmental Flows – Marvin Nichols



Environmental Flows – Wright Patman

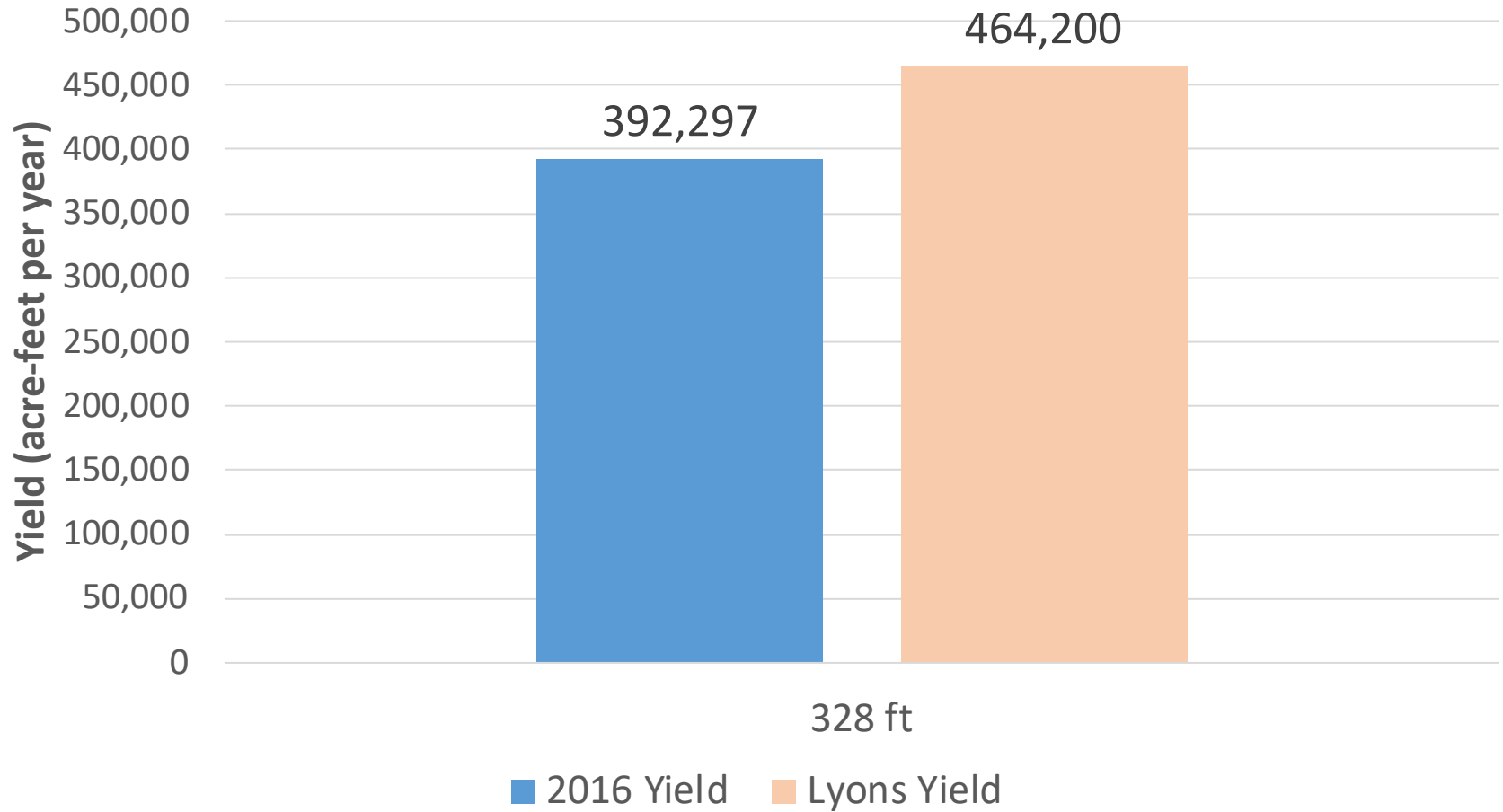


Yields – Patman Reallocation (New)

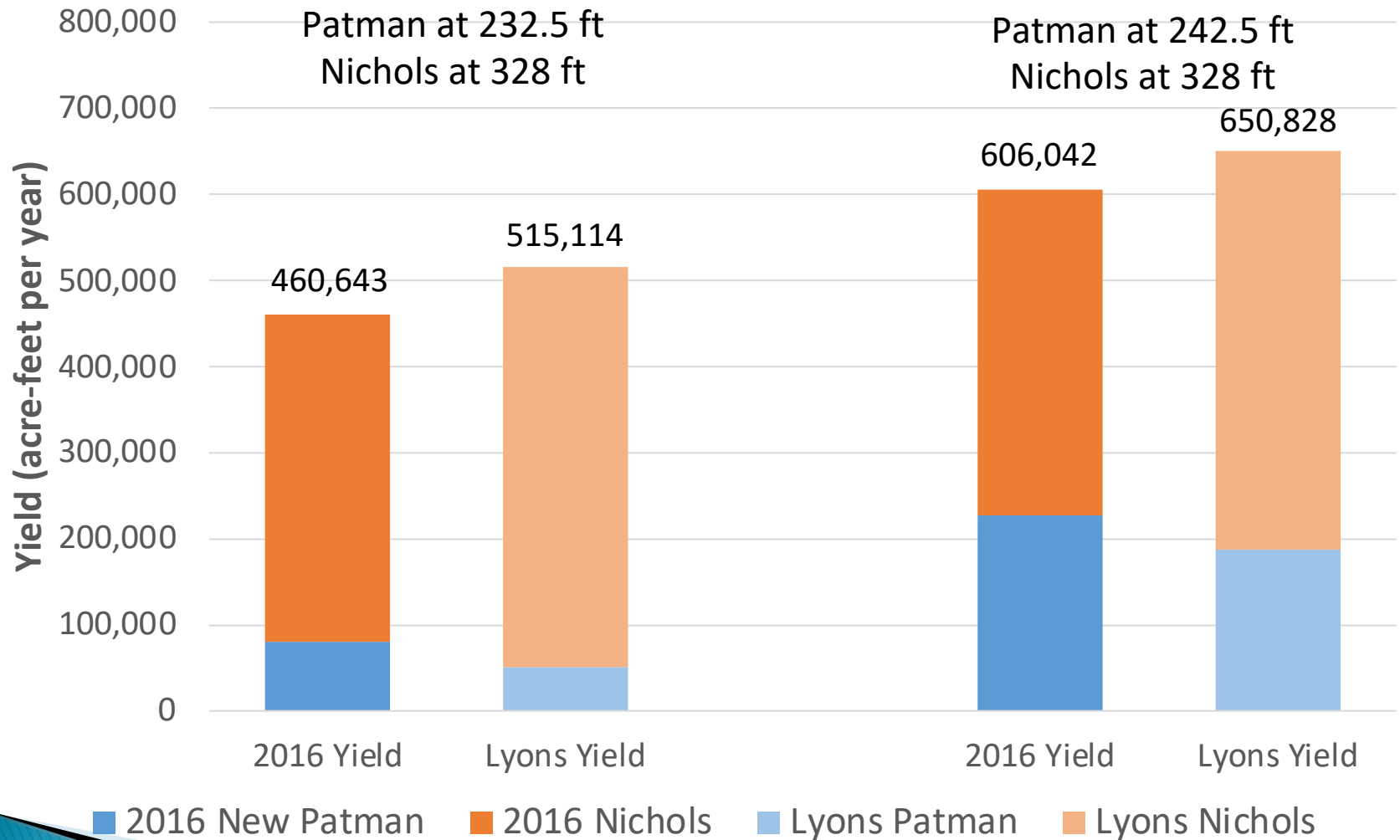


Does not include 180,000 ac-ft currently authorized from Patman

Yields – Marvin Nichols

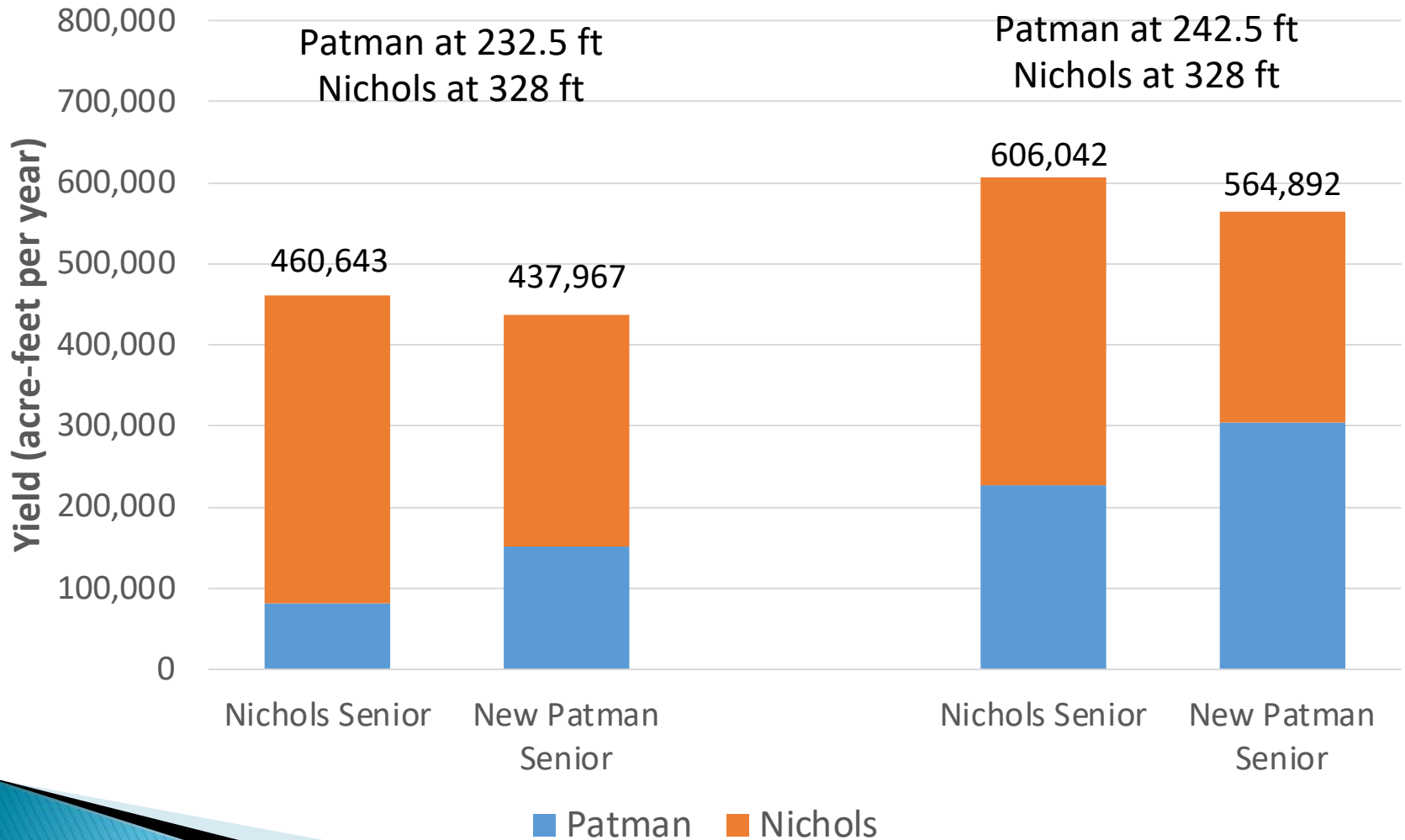


Yields – Combinations



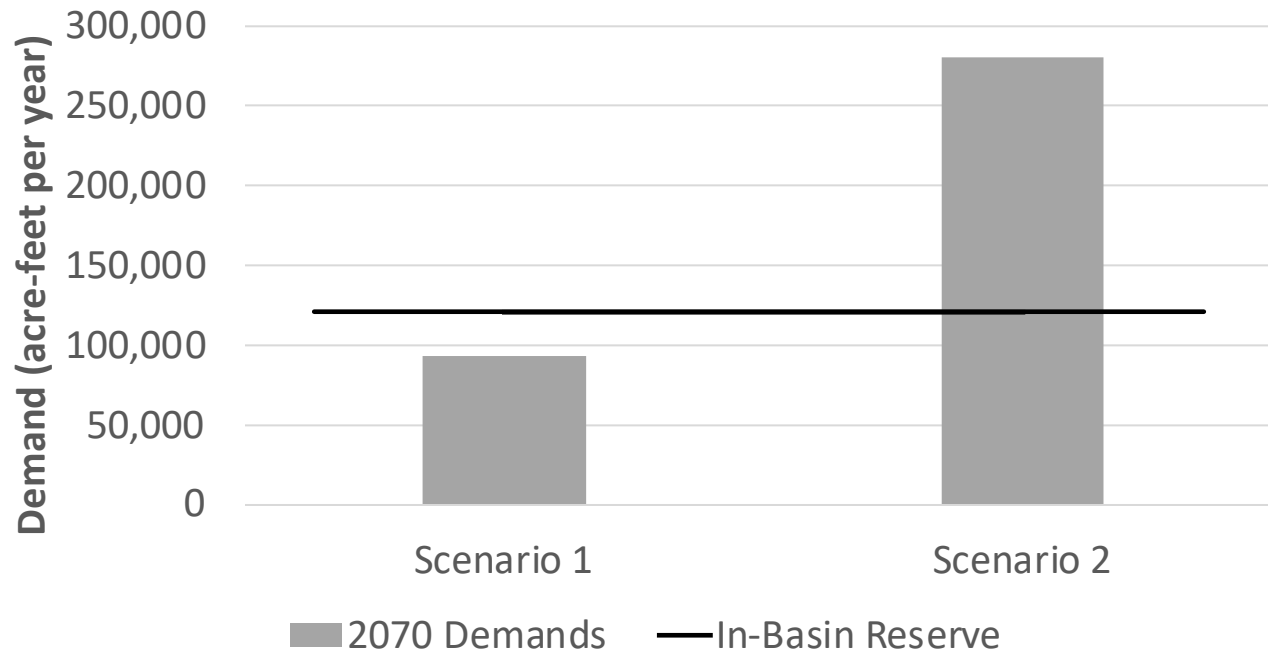
Does not include 180,000 ac-ft currently authorized from Patman

Yields – New Patman Senior to Nichols

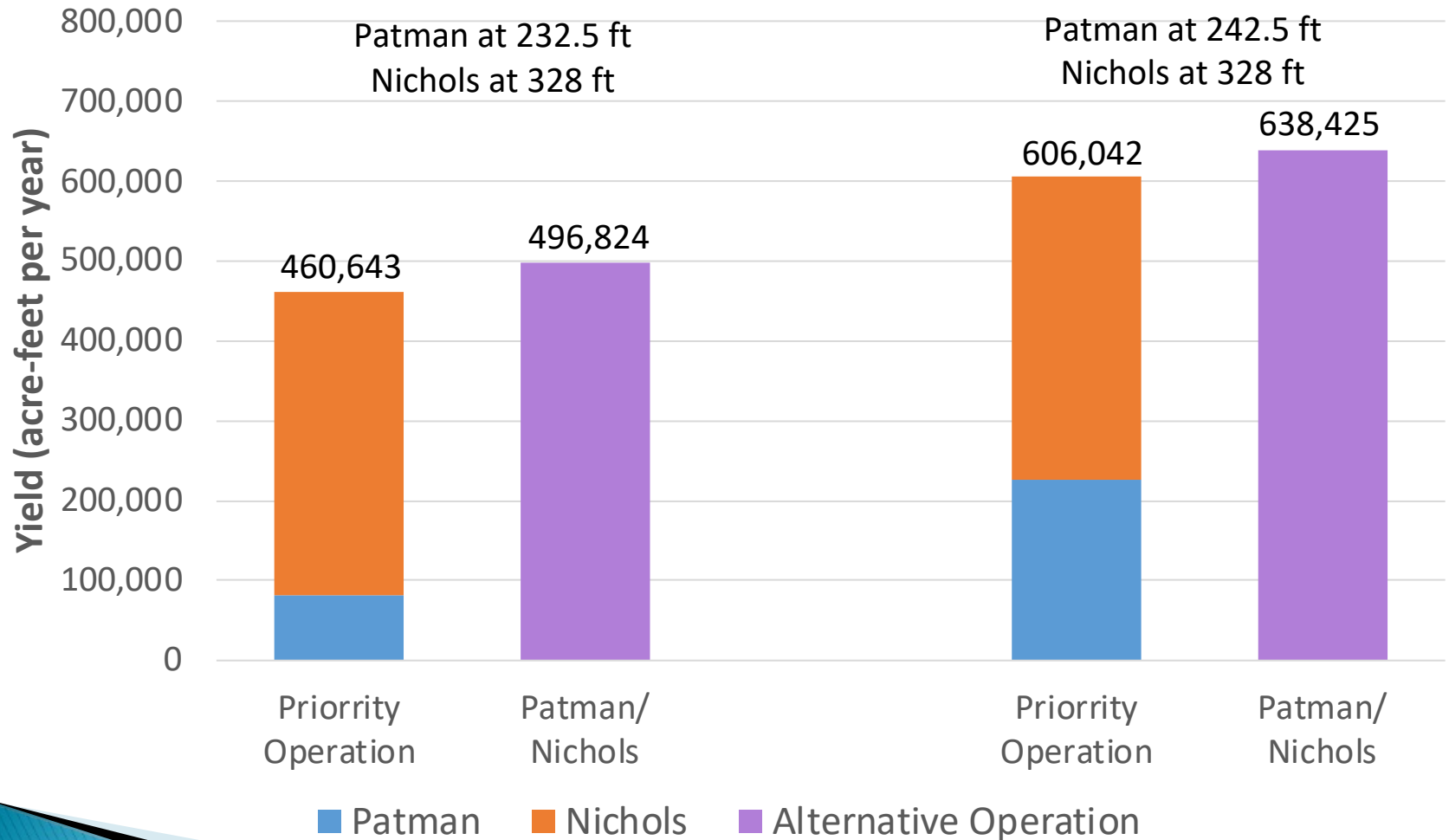


Demand Scenarios

- ▶ Summarized in TM1-1
 - Scenario 1 - In-basin demands only
 - Scenario 2 - Adds demands adjacent to basin



Yield with “Alternative” Operation



Summary

- ▶ New environmental flows
 - Reduce yield of Nichols
 - Increase yield of Patman
 - Reduce combined yield of Patman and Nichols
- ▶ 20% reserve for in-basin needs should be sufficient to meet all in-basin needs plus some additional water for out-of-basin
- ▶ Holistic operation of Patman/Nichols to meet demand could increase yield from system

Questions?