IDAHO Department of Water Resources

Wood River Valley Modeling Technical Advisory Committee
Response to Comments on Draft Modeling Objectives

Presented by Sean Vincent
August 1, 2013

Preface

- IDWR and USGS encourage active participation from MTAC members
- Comments constructive, thought-provoking, & deserving of response/discussion
- Response intended to generate discussion

Summary of Comments

1. Need to prioritize objectives
   – Facilitating Conjunctive Administration is #1 objective

2. Objectives are too broad/vague → be more specific

3. Preliminary 100m x 100m grid is too coarse

Response to Comment #1 (prioritize)

- Need to prioritize diminished since design requirements for the various objectives don't appear to be in conflict

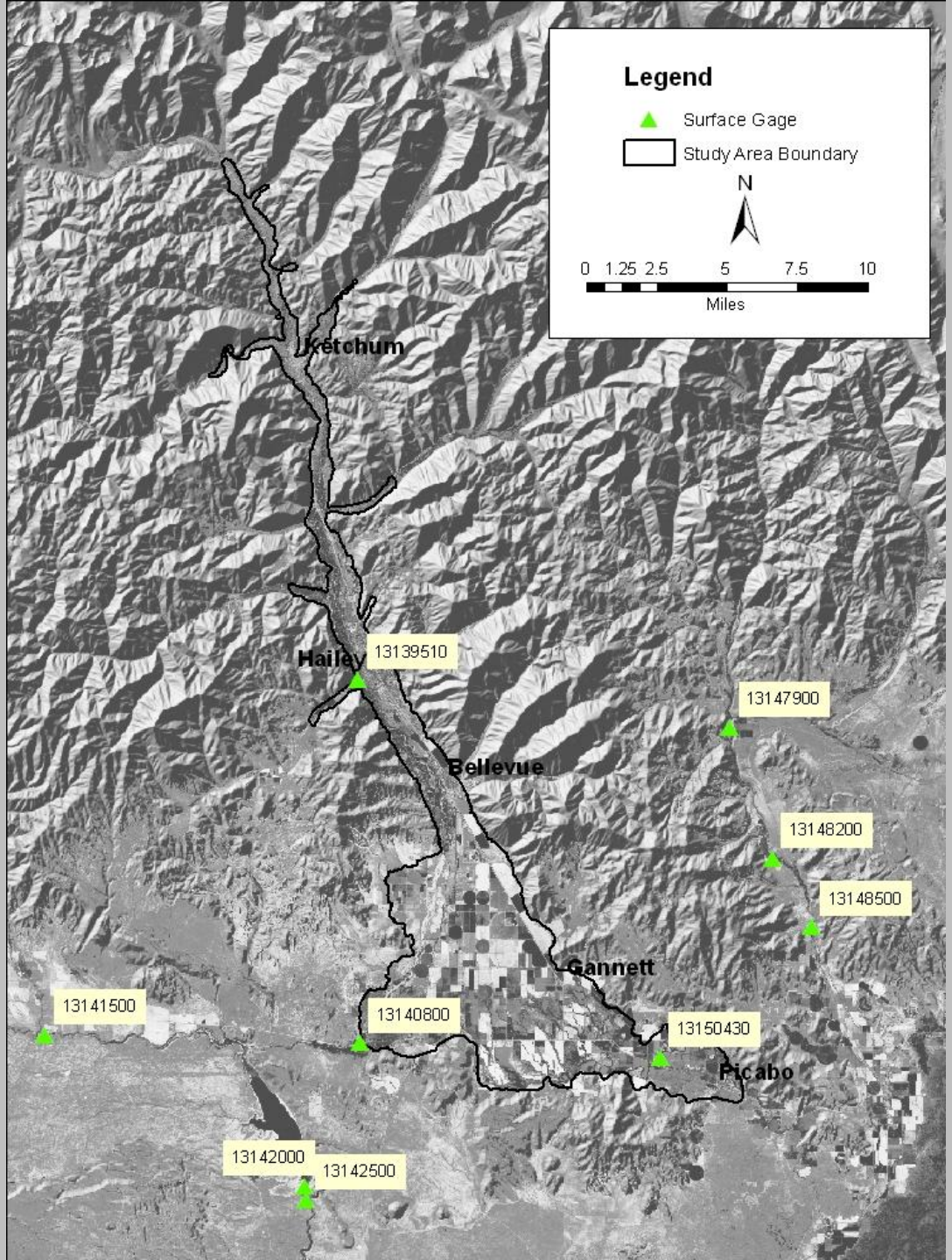
- Facilitating Conjunctive Administration is important objective for IDWR but not necessarily so for the entities providing most of the funding (IWRB & USGS)

Response to Comment #2 (vague)

- Agree that draft objectives not terribly specific
- Draft objectives nonetheless accurate & useful for:
  - selecting code, solver, & river/stream package
  - delineating model domain
  - establishing requirements for defensibility & documentation
- Objectives also identify what we're not needing the model to do (evaluate well-to-well impacts)

Response to Comment #2 (cont'd)

- There are reasons to question the need for increased specificity:
  1. We don't know what Conj. Admin. will look like (& not our job to decide) → best we can do is look at ESPAM requirements
     - Quantify groundwater pumping impacts on river reaches
     - Determine priorities for curtailment/quantify mitigation benefits
     - Facilitate groundwater POD transfers
     - CAMP scenarios
  2. Spatial and temporal discretization likely will constrained by data availability, not by objectives


Legend
Surface Gage
Study Area Boundary
N
0 1.25 2.5 5 7.5 10
Miles
Ketchum
Hailey
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Bellevue
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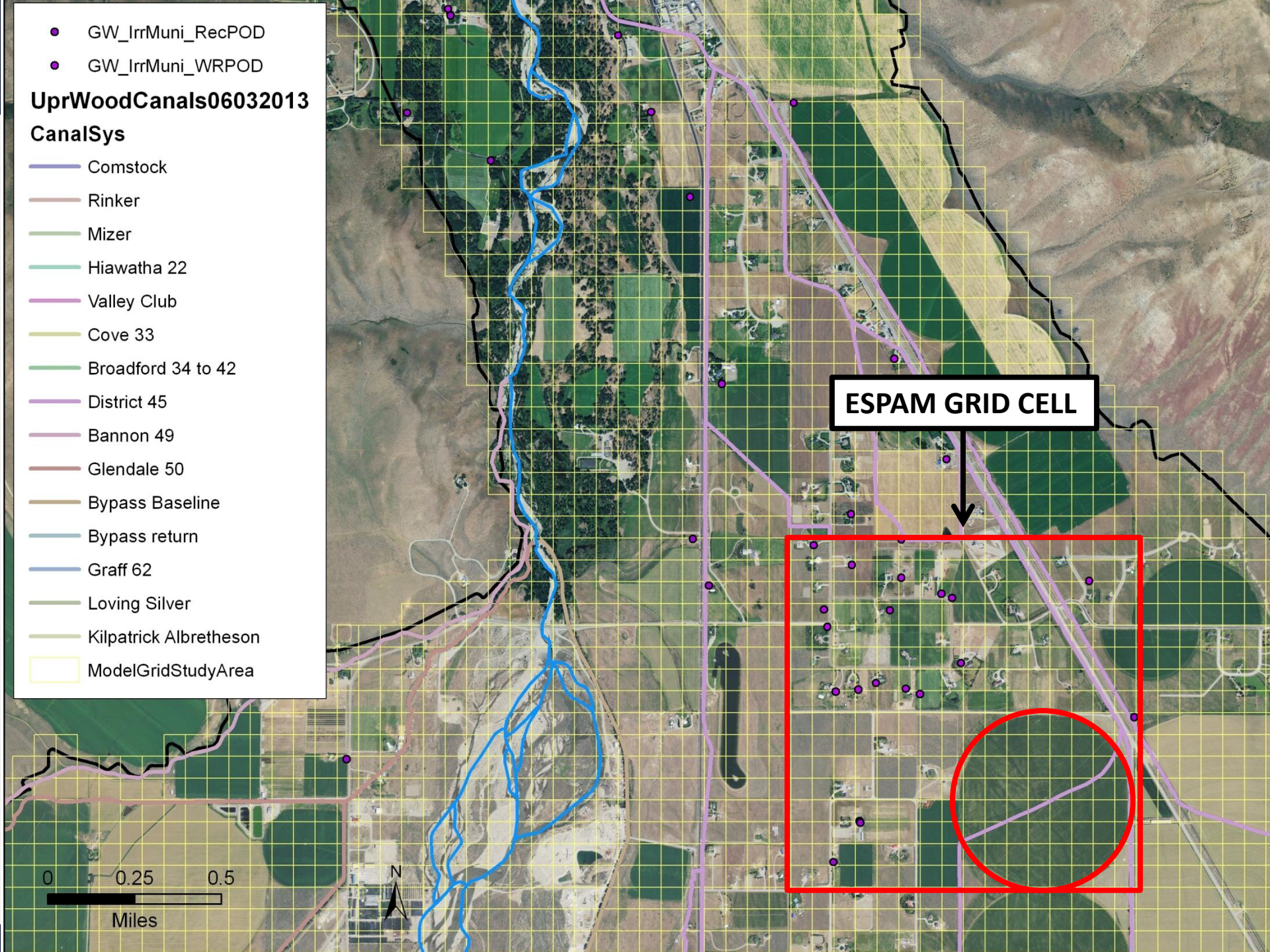
Response to Comment #3 (too coarse)

- For 100m x 100m grid cells:
  - 23,600 cells intersect WRV study area (larger, 1-layer ESPAM has 11,236 active cells)
  - Center pivot ~ 8 grid cells wide
  - ~256 cells to cover the area of 1 ESPAM cell
- 100m grid spacing likely exceeds defensible level of refinement based on density of calibration data
- Local grid refinement relatively easy w/ MODFLOW USG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GW_IrrMuni_WRPOD
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CanalSys
Comstock
Rinker
Mizer
Hiawatha 22
Valley Club
Cove 33
Broadford 34 to 42
District 45
Bannon 49
Glendale 50
Bypass Baseline
Bypass return
Graff 62
Loving Silver
Kilpatrick Albretheson
ModelGridStudyArea
ESPAM GRID CELL
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Discussion