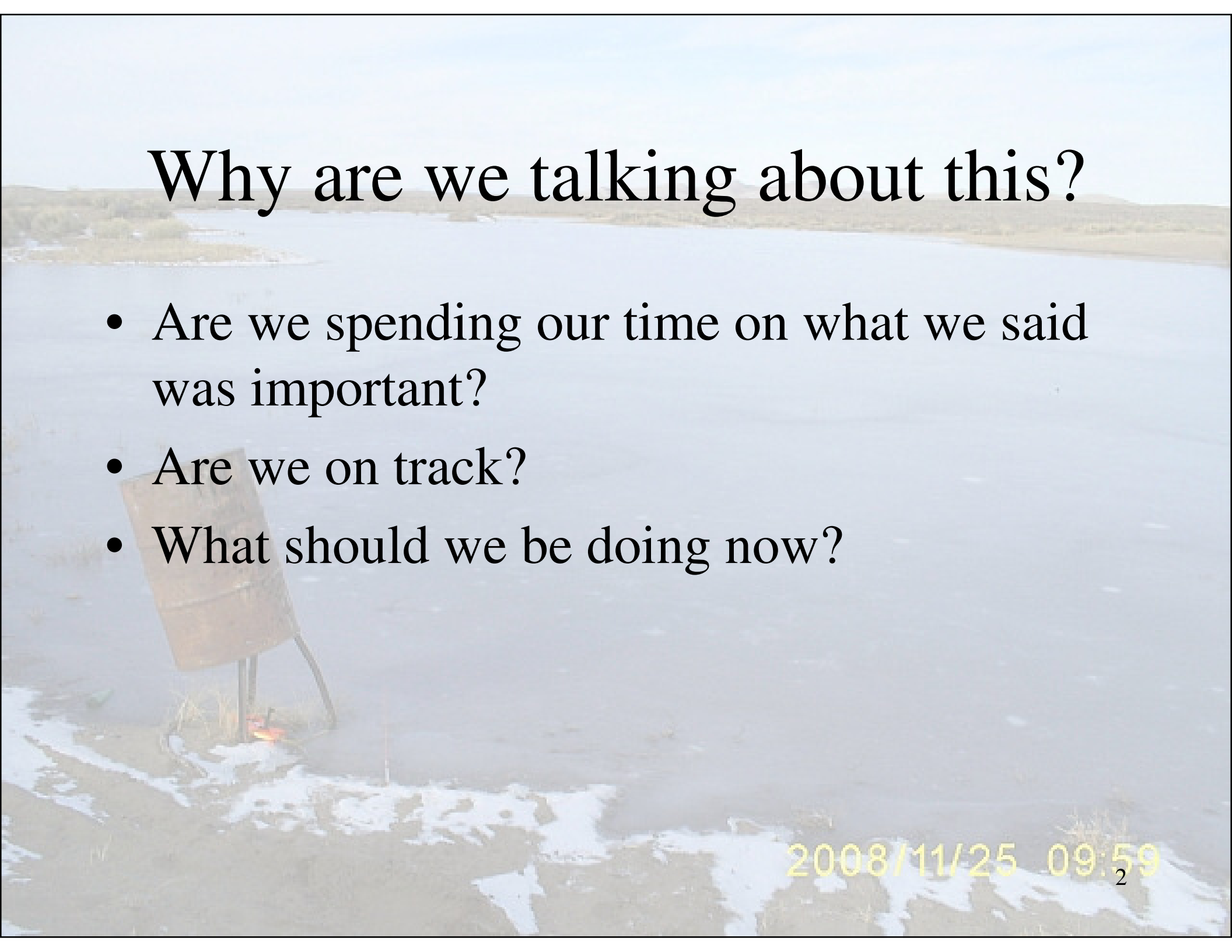
PRIORITIZATION/WORK STATUS

ESHMC Meeting January 2009

B. Contor

Why are we talking about this?

- Are we spending our time on what we said was important?
- Are we on track?
- What should we be doing now?



I. IWRRI Contract Requirements

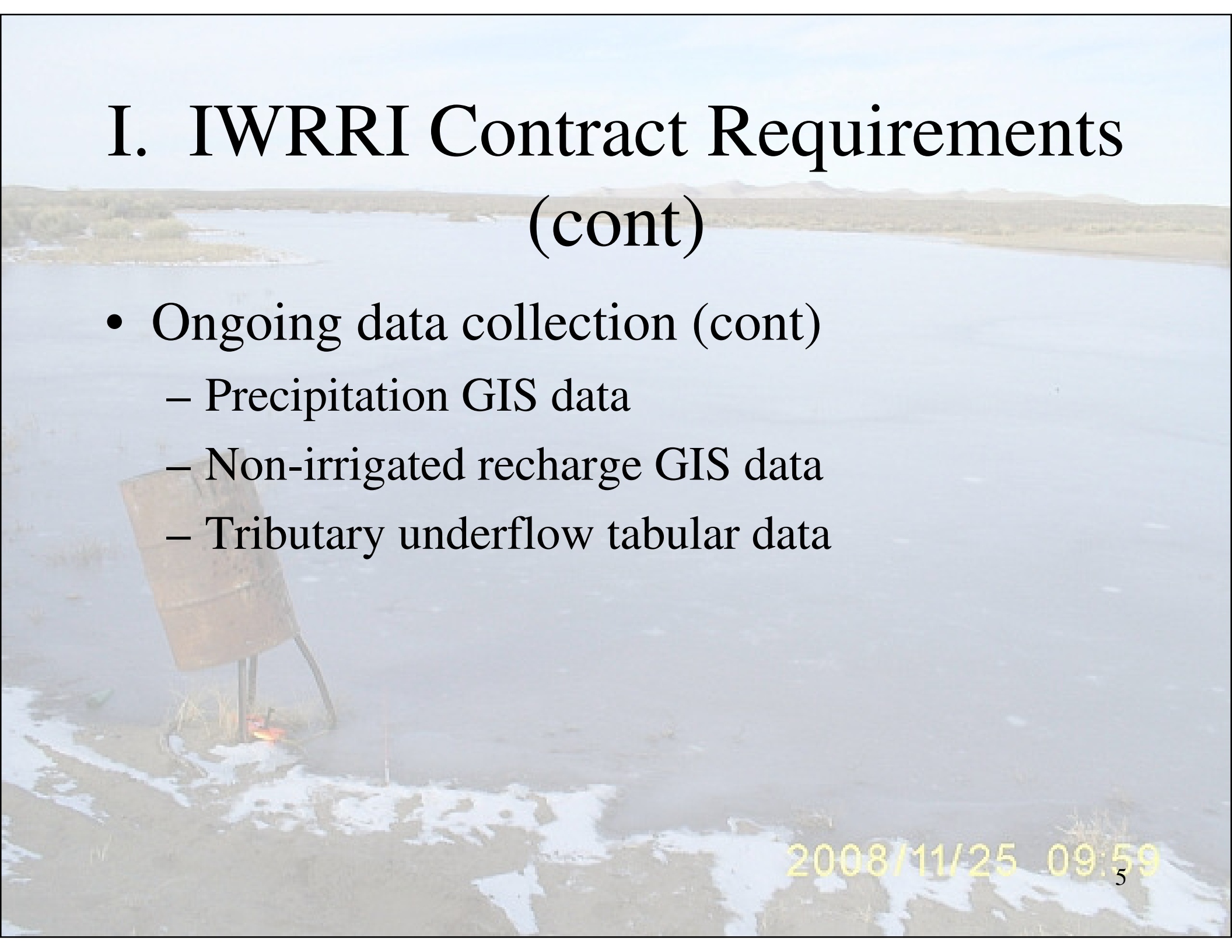
- Initial one-time tasks
  - convert all data to IDTM83
  - consult with ESHMC
  - double-check irrigated lands & mapping to diversions
- Ongoing data collection
  - Canal tabular data
  - Diversions and returns

I. IWRRI Contract Requirements (cont)

- Ongoing data collection (cont)
  - Fixed-point GIS data
  - Fixed-point tabular data
  - Offsite pumping GIS data
  - Offsite tabular data
  - Perched seepage tabular data

I. IWRRI Contract Requirements (cont)

- Ongoing data collection (cont)
  - Precipitation GIS data
  - Non-irrigated recharge GIS data
  - Tributary underflow tabular data



I. IWRRI Contract Requirements (cont)

- Refinement of Methods
  - GW fraction on mixed-source lands
  - Discretization of river & spring reaches
  - Return flows
  - Perched-river seepage

I. IWRRI Contract Requirements (cont)

- Final Tasks
  - Run Recharge Tool
    - output *.wel and/or *.rch files
  - Calculate water balance and implied change in storage
  - Summarize, check & verify
  - Write summary report

IIa. Additional work undertaken in response to ESHMC input

- One-month stress periods
- Extend data set
- Canal seepage
  - refinement of method
  - extend spatial extent
- Non-irrigated recharge
  - refinement of method
  - increase PESTability (more parameters)

IIa. Additional work undertaken in response to ESHMC input (cont)

- Upgrades to recharge tool
  - ability to handle > 255 stress periods
  - additional PEST options
  - summary tool
- On-farm Water Budget
  - (details still under discussion)
- Uncertainty Analysis (IDWR)
- Boundaries (IDWR)

IIb. Review of what we said was important

Copies of Slides from August 2008

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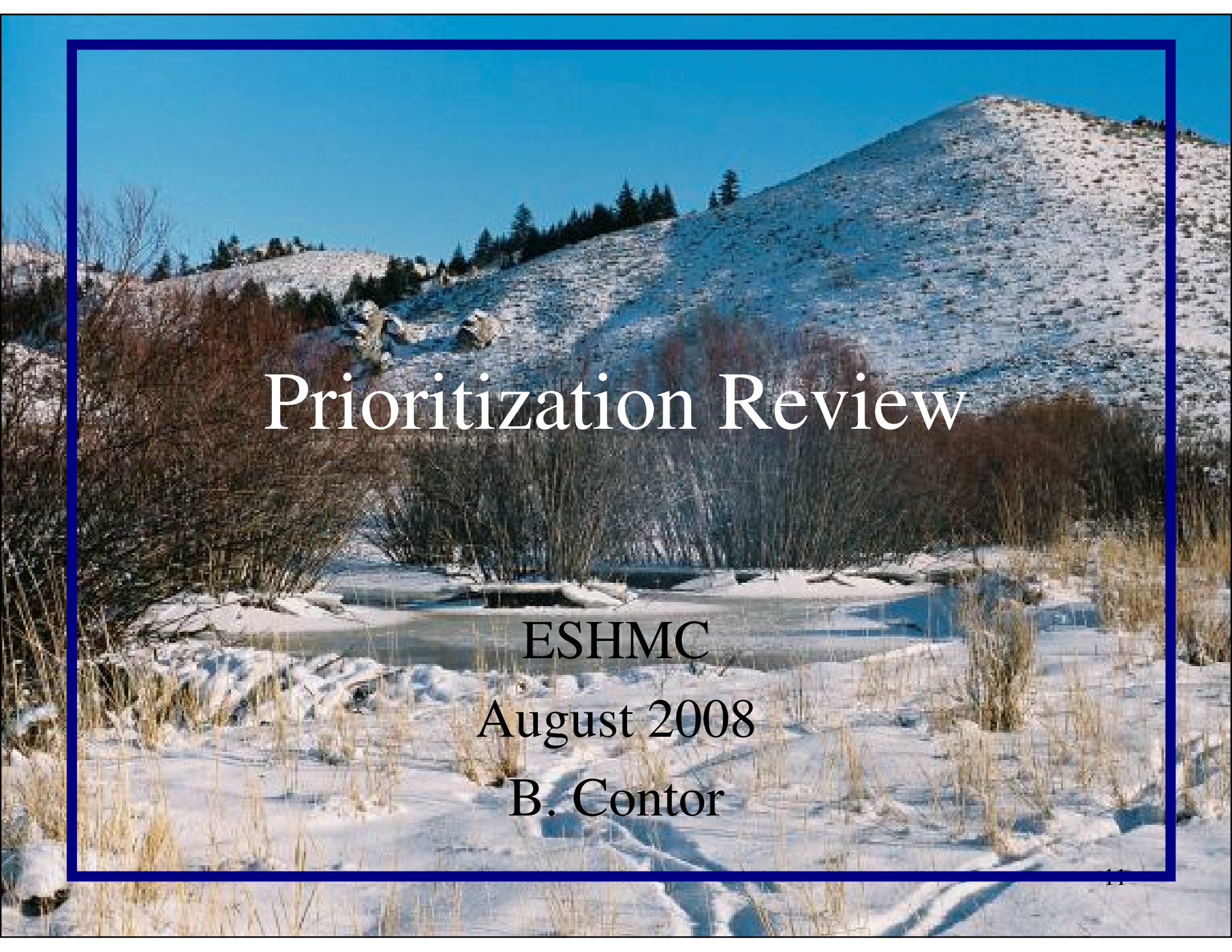


Prioritization Review

ESHMC

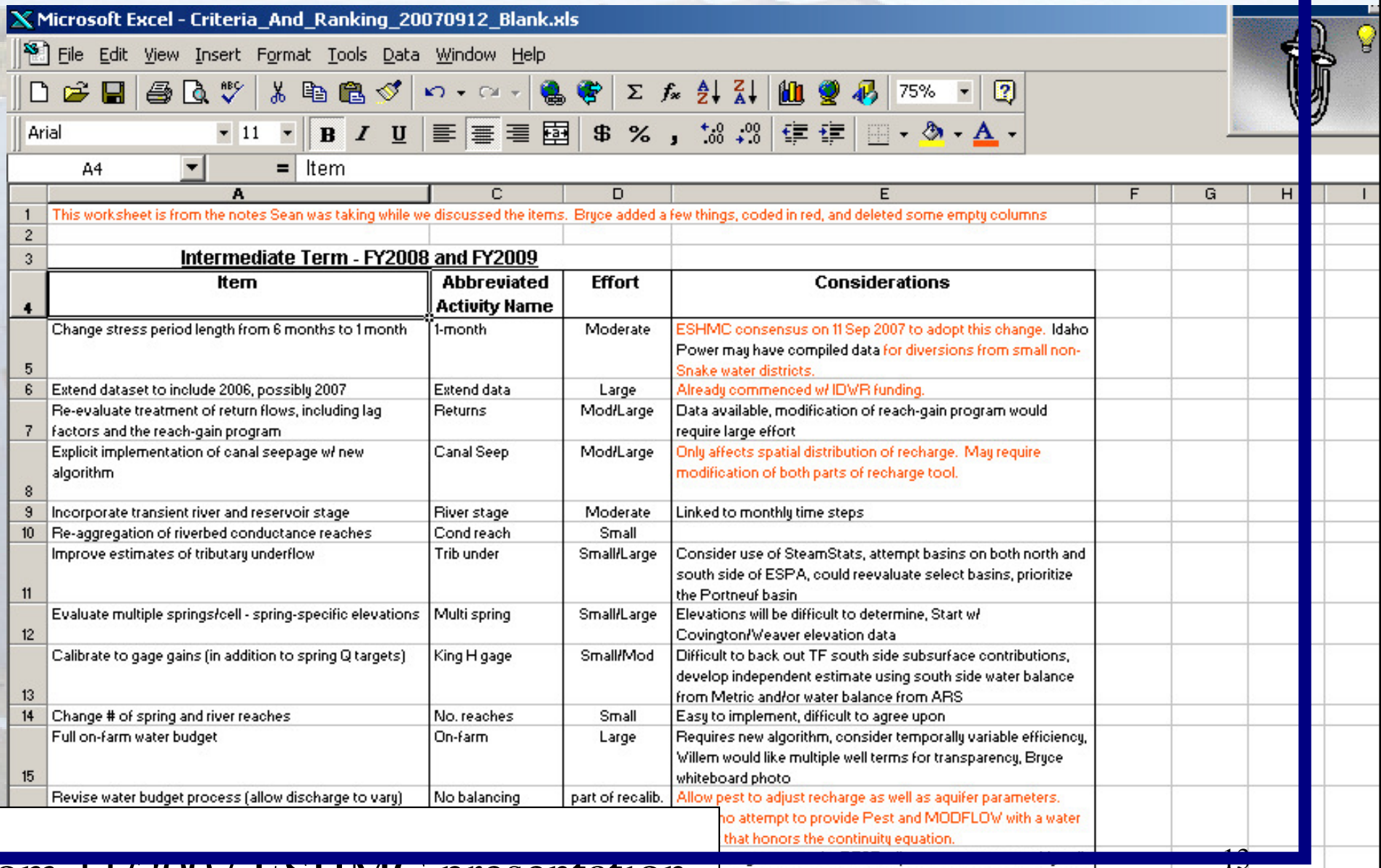
August 2008

B. Contor

Review

- In 2007 we brainstormed possible modifications to conceptual model & modeling procedures

List of activities from Sean's discussion



Microsoft Excel - Criteria_And_Ranking_20070912_Blank.xls

File Edit View Insert Format Tools Data Window Help

Arial 11 75%

A4 = Item

This worksheet is from the notes Sean was taking while we discussed the items. Bryce added a few things, coded in red, and deleted some empty columns

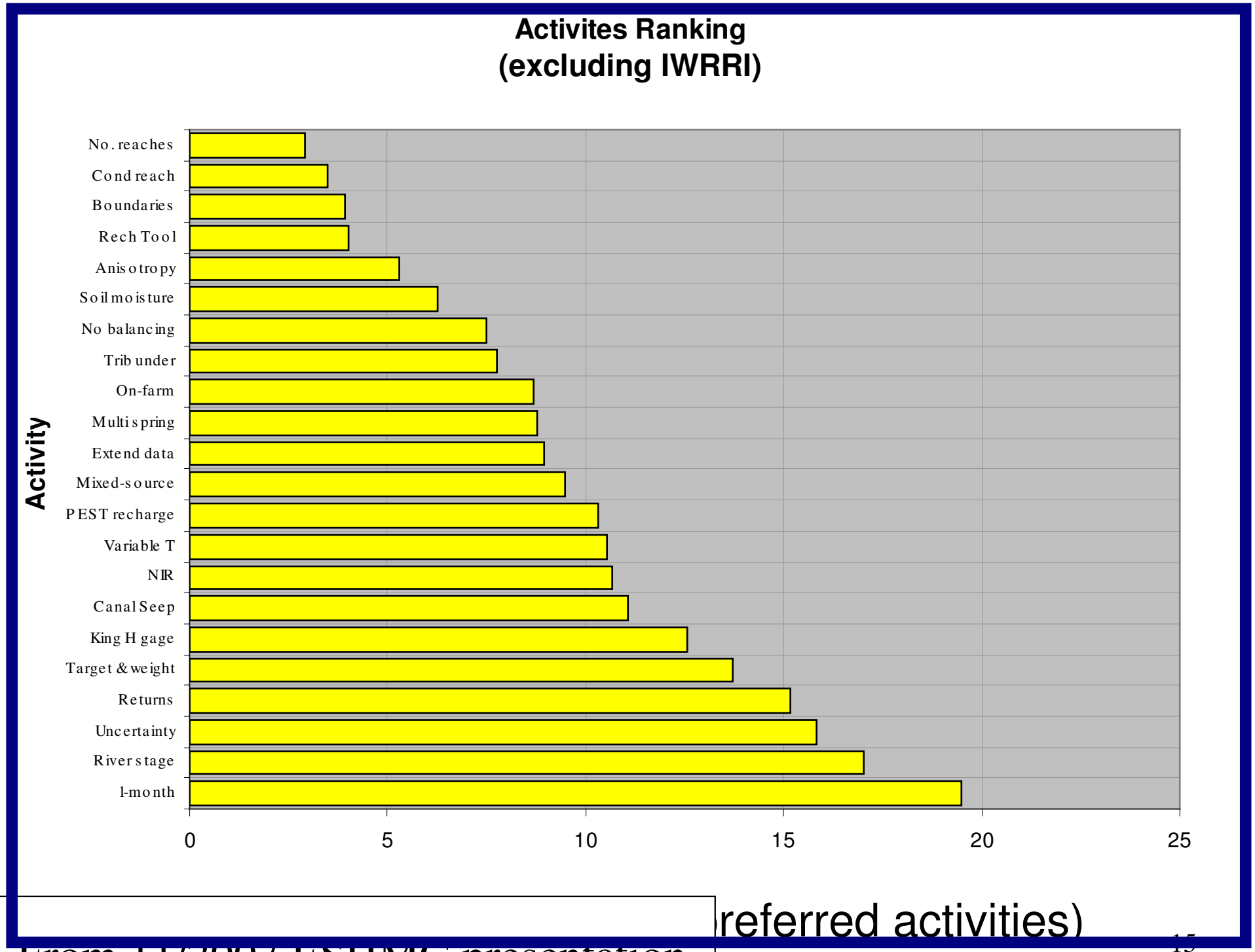
Intermediate Term - FY2008 and FY2009

Item	Abbreviated Activity Name	Effort	Considerations
Change stress period length from 6 months to 1 month	1-month	Moderate	ESHMC consensus on 11 Sep 2007 to adopt this change. Idaho Power may have compiled data for diversions from small non-Snake water districts.
Extend dataset to include 2006, possibly 2007	Extend data	Large	Already commenced w/ IDWR funding.
Re-evaluate treatment of return flows, including lag factors and the reach-gain program	Returns	Mod/Large	Data available, modification of reach-gain program would require large effort
Explicit implementation of canal seepage w/ new algorithm	Canal Seep	Mod/Large	Only affects spatial distribution of recharge. May require modification of both parts of recharge tool.
Incorporate transient river and reservoir stage	River stage	Moderate	Linked to monthly time steps
Re-aggregation of riverbed conductance reaches	Cond reach	Small	
Improve estimates of tributary underflow	Trib under	Small/Large	Consider use of SteamStats, attempt basins on both north and south side of ESPA, could reevaluate select basins, prioritize the Portneuf basin
Evaluate multiple springs/cell - spring-specific elevations	Multi spring	Small/Large	Elevations will be difficult to determine, Start w/ Covington/Weaver elevation data
Calibrate to gage gains (in addition to spring Q targets)	King H gage	Small/Mod	Difficult to back out TF south side subsurface contributions, develop independent estimate using south side water balance from Metric and/or water balance from ARS
Change # of spring and river reaches	No. reaches	Small	Easy to implement, difficult to agree upon
Full on-farm water budget	On-farm	Large	Requires new algorithm, consider temporally variable efficiency, Willem would like multiple well terms for transparency, Bryce whiteboard photo
Revise water budget process (allow discharge to vary)	No balancing	part of recalib.	Allow pest to adjust recharge as well as aquifer parameters. no attempt to provide Pest and MODFLOW with a water that honors the continuity equation.
			parameters, involves adding new functionality to RAN tool. The FORTRAN part of the recharge program has PEST hooks; therefore, this can probably be

From 11/2007 ESHMC presentation

Review

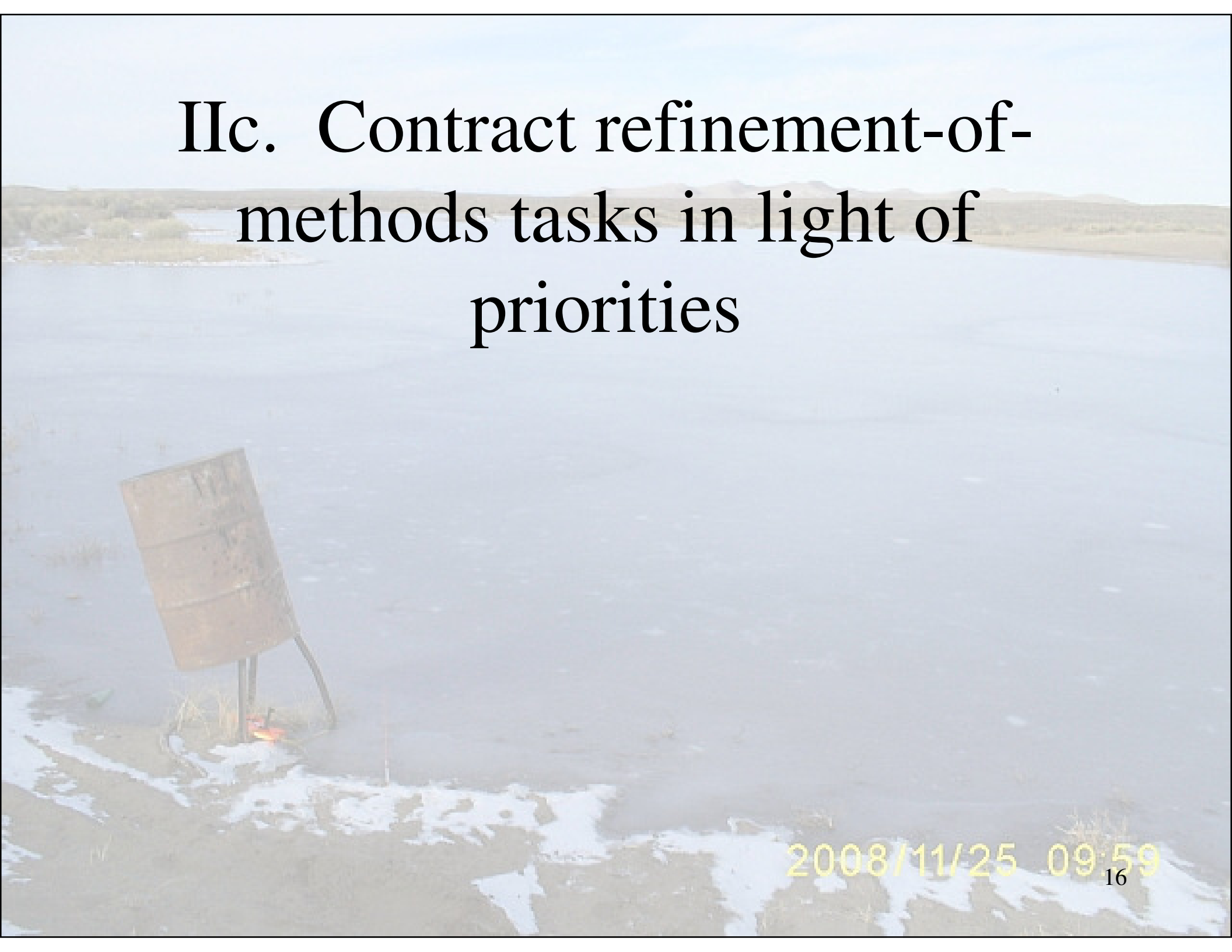
- We all ranked the activities & summarized



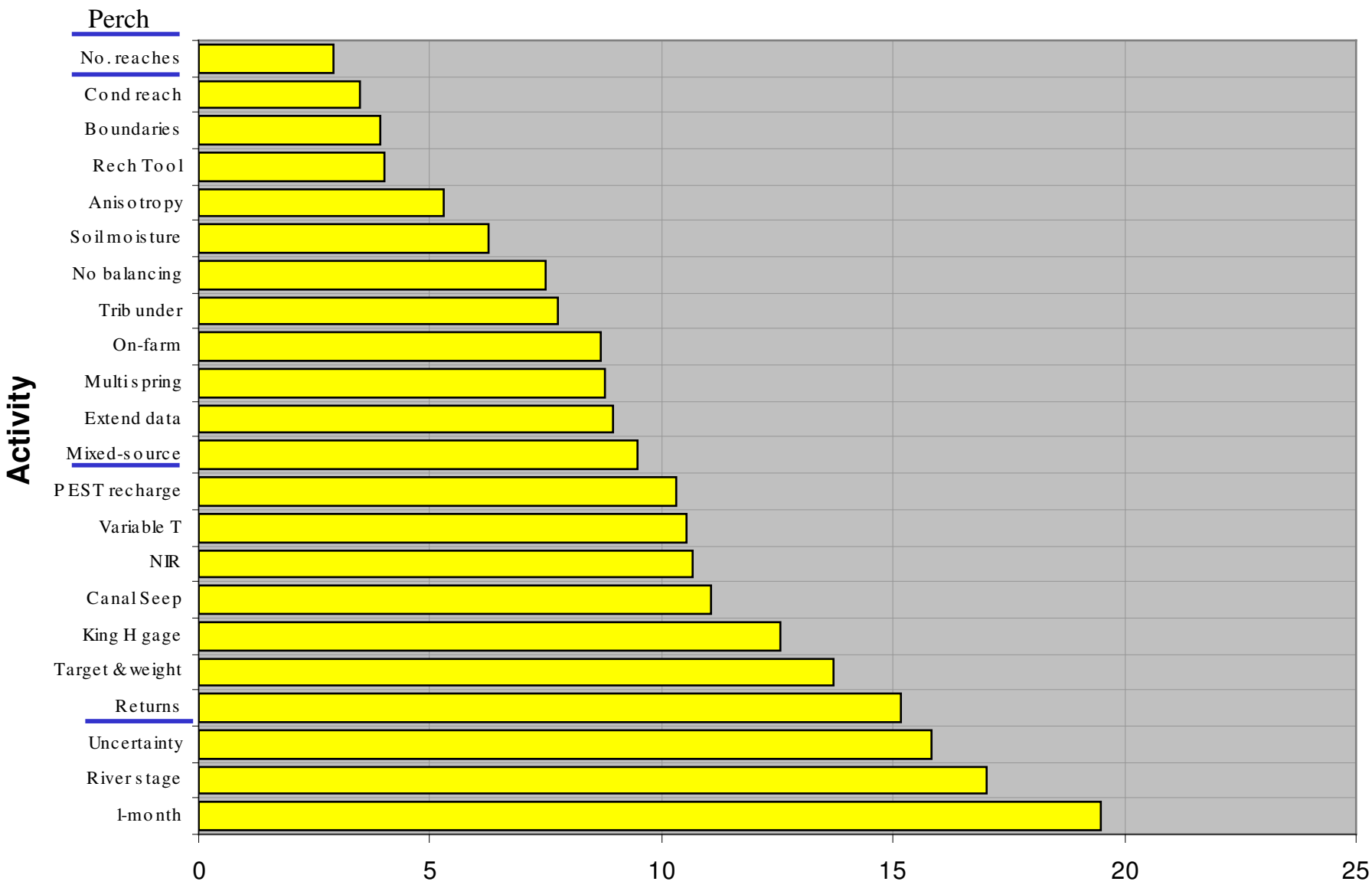
referred activities)

From 11/2007 ESHMC presentation

IIc. Contract refinement-of-methods tasks in light of priorities

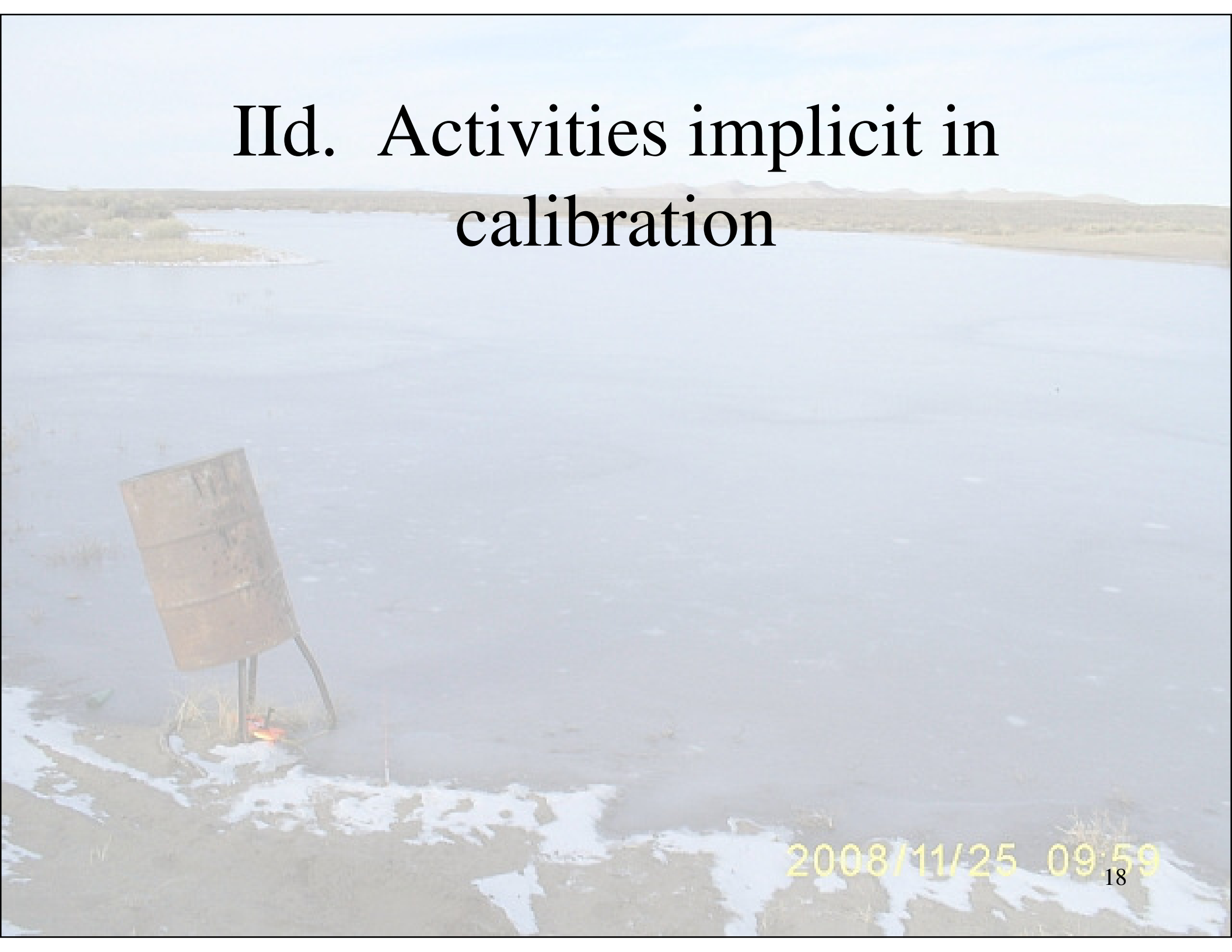


Activites Ranking
(excluding IWRRI)

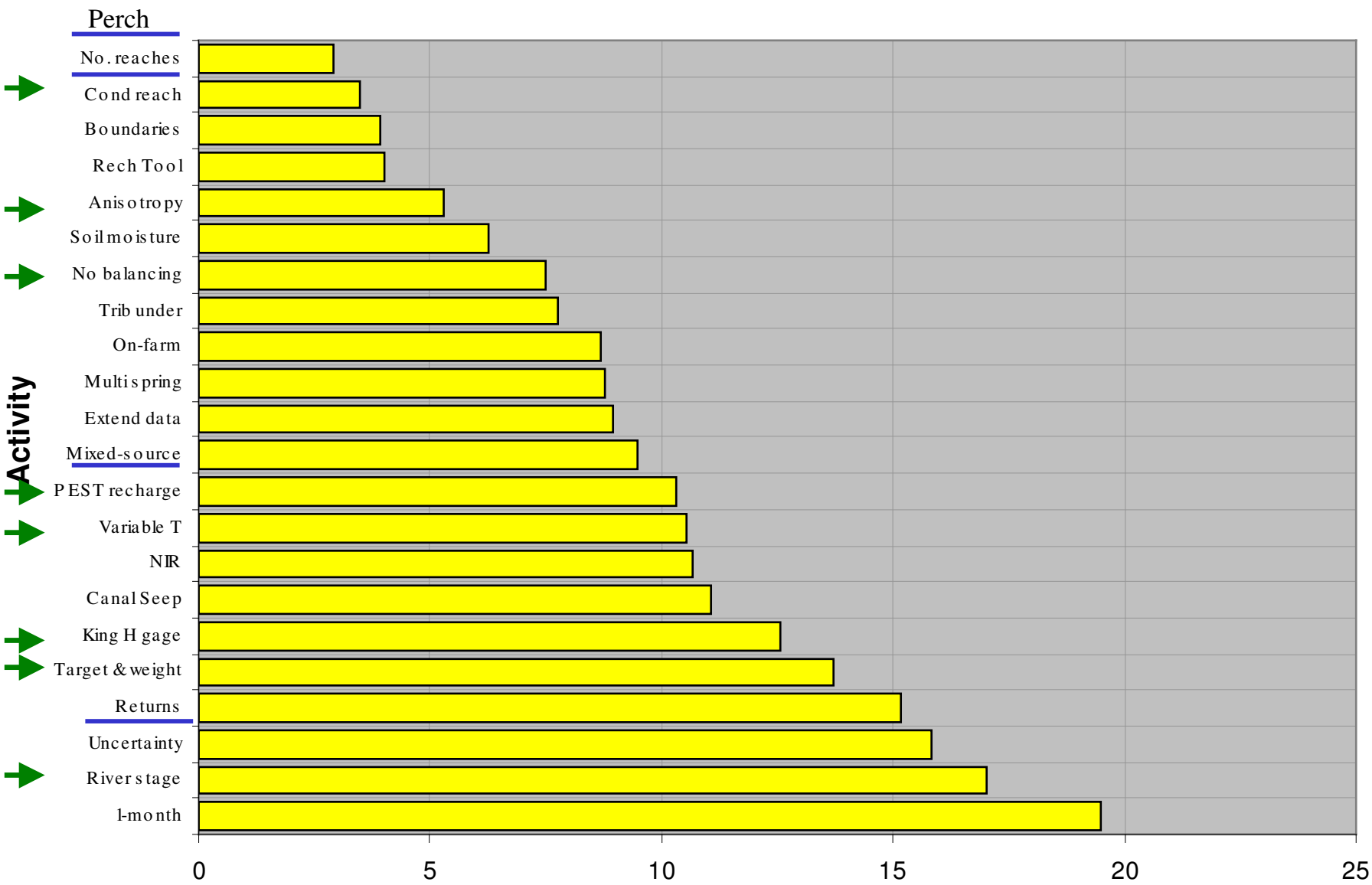


(high numbers mean preferred activities)

IId. Activities implicit in calibration

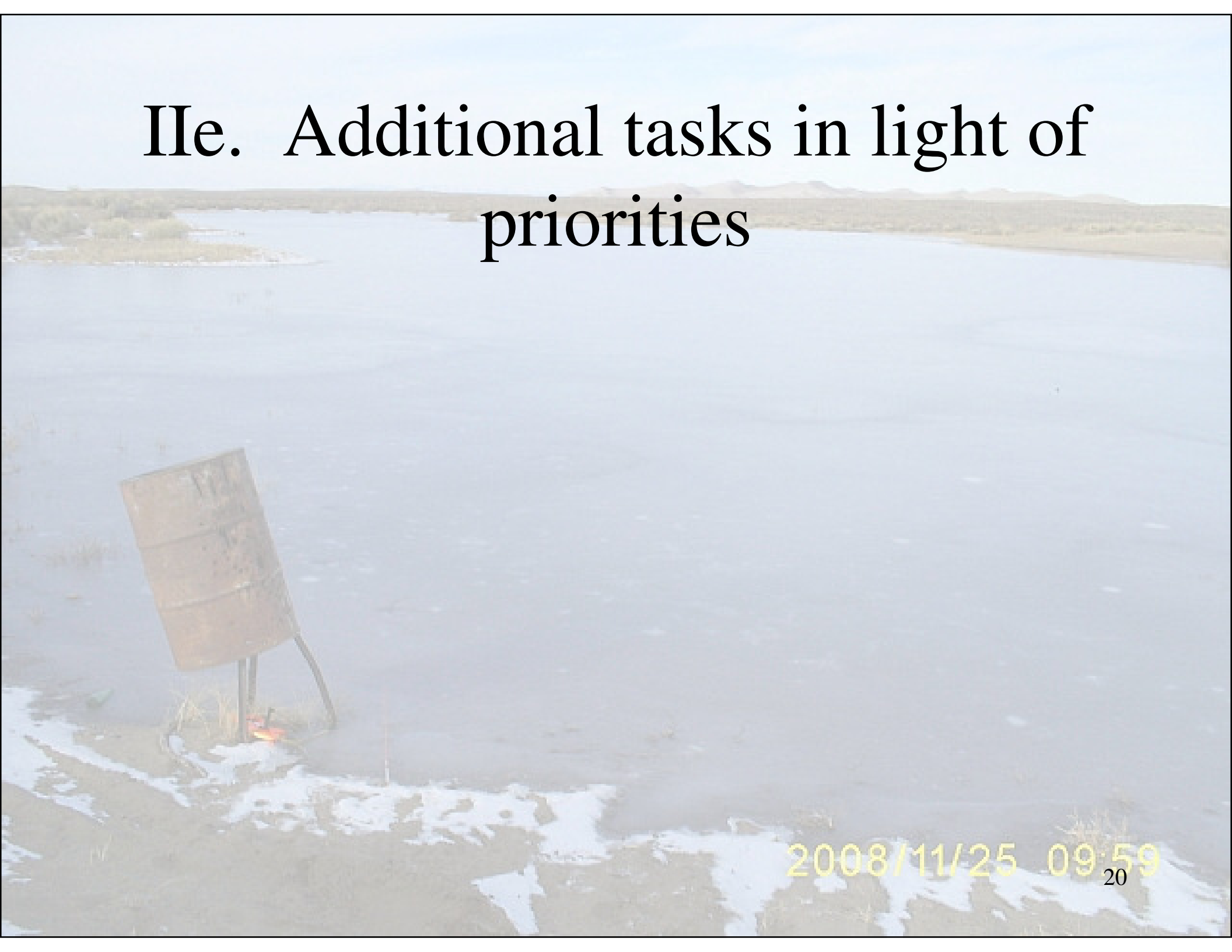


Activites Ranking
(excluding IWRRI)

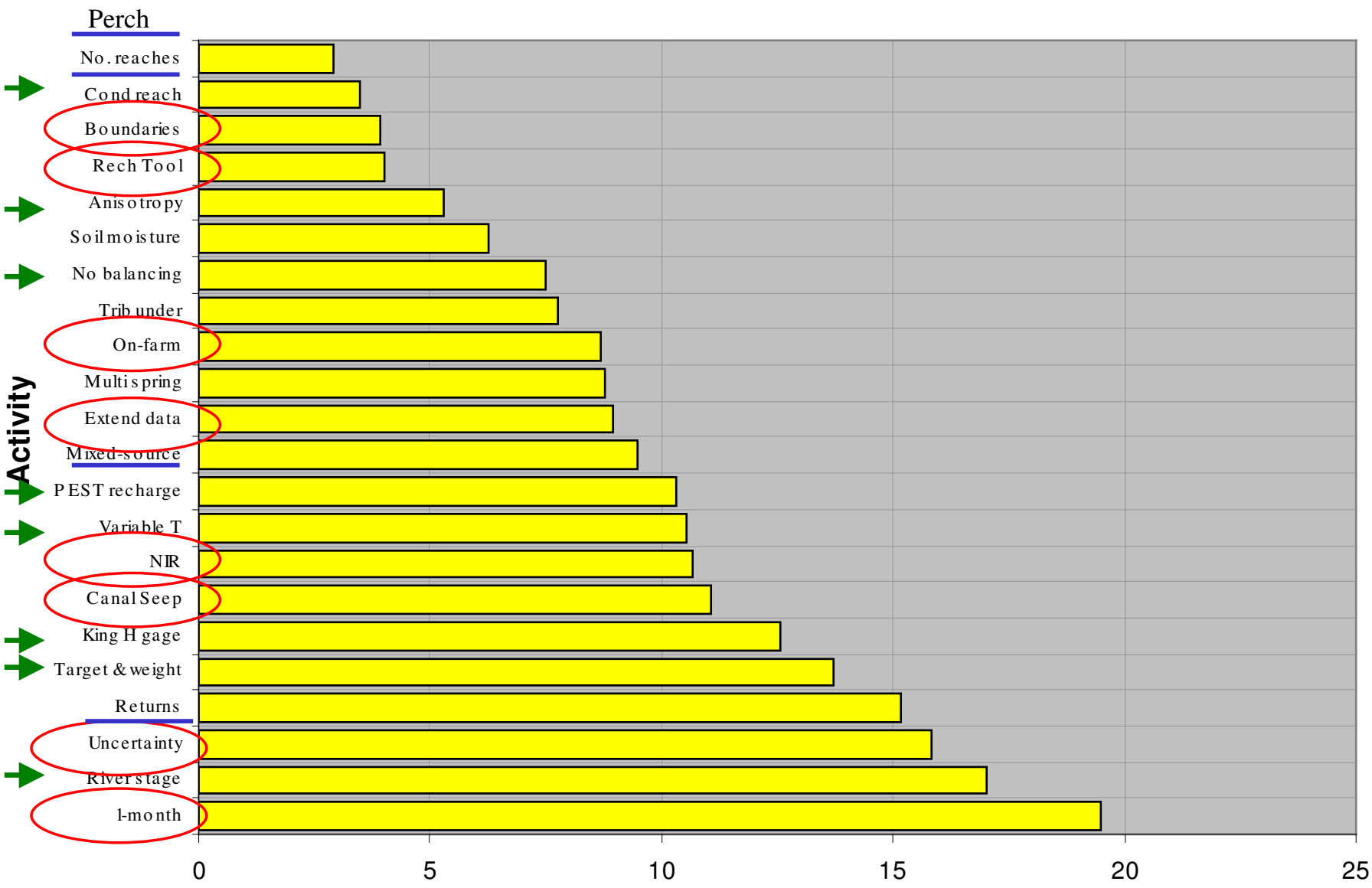


(high numbers mean preferred activities)

IIe. Additional tasks in light of priorities

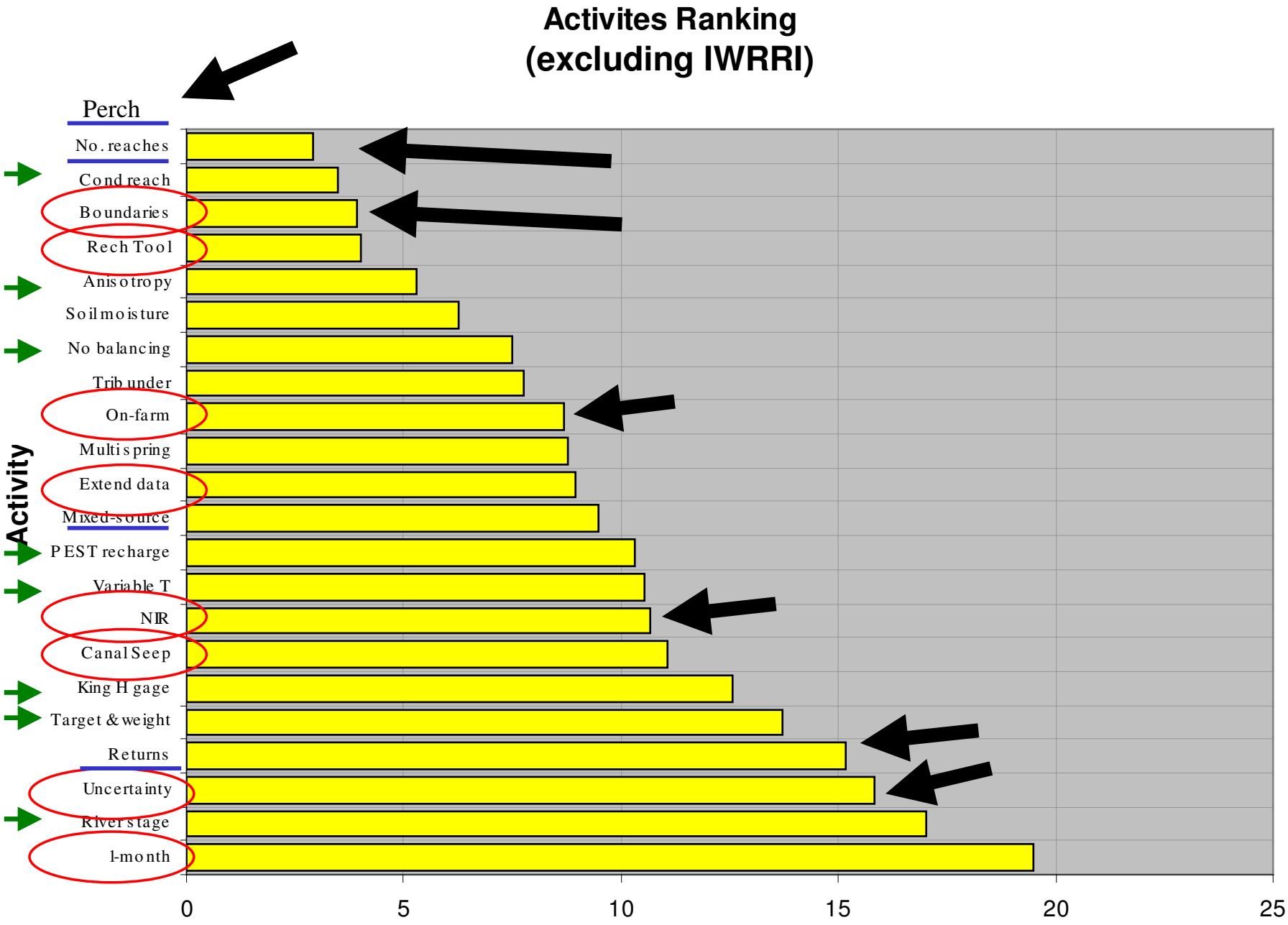


Activites Ranking
(excluding IWRRI)



(high numbers mean preferred activities)

IIf. Today's activities in light of priorities



referred activities)

From 11/2007 ESHMC presentation

III. Are we on track?

IIIa. IWRRI Contract Requirements

- Initial one-time tasks
  - convert all data to IDTM83 **100%**
  - consult with ESHMC **125%**
  - double-check irrigated lands & mapping to diversions **10%**
- Ongoing data collection
  - Canal tabular data **95%**
  - Diversions and returns **95%**

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IIIa. IWRRI Contract Requirements (cont)

- Ongoing data collection (cont)
  - Fixed-point GIS data **100%**
  - Fixed-point tabular data **100%**
  - Offsite pumping GIS data **100%**
  - Offsite tabular data **100%**
  - Perched seepage tabular data **100%**

IIIa. IWRRI Contract Requirements (cont)

- Ongoing data collection (cont)
  - Precipitation GIS data **100%**
  - Non-irrigated recharge GIS data **0%**
  - Tributary underflow tabular data **100%**

IIIa. IWRRI Contract Requirements (cont)

- Refinement of Methods
  - GW fraction on mixed-source lands **90%**
  - Discretization of river & spring reaches **(IDWR)**
  - Return flows **80%**
  - Perched-river seepage **20%**

IIIa. IWRRI Contract Requirements (cont)

- Final Tasks
  - Get data into proper format — 2%
  - Run Recharge Tool — 0%
    - output *.wel and/or *.rch files
  - Calculate water balance and implied change in storage — 0%
  - Summarize, check & verify — 0%
  - Write summary report — 0%
  - Participate w/ Calibration — 0%

IIIb. Additional work undertaken in response to ESHMC input

- One-month stress periods **100%**
- Extend data set **80%**
- Canal seepage
  - refinement of method **100%**
  - extend spatial extent **20%**
- Non-irrigated recharge
  - refinement of method **70%**
  - increase PESTability (more parameters) **40%**

IIIb. Additional work undertaken in response to ESHMC input (cont)

- Upgrades to recharge tool
  - ability to handle > 255 stress periods **90%**
  - additional PEST options **40%**
  - summary tool **20%**
- On-farm Water Budget
  - (still under discussion) **??%**
- Uncertainty Analysis (IDWR)
- Boundaries (IDWR)

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IV. We gonna cut bait, or fish?