

A photograph of a large, calm body of water, possibly a reservoir or lake, under a clear blue sky. In the foreground, a rusty, cylindrical metal barrel is partially submerged in the water, leaning against a small structure. The background shows a range of low, brown mountains under a bright sky. The water is a deep blue-grey color.

PRIORITIZATION/WORK STATUS

ESHMC Meeting January 2009

B. Contor

2008/11/25 09:59

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?

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I. IWRRRI 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

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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

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I. IWRRRI Contract Requirements (cont)

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

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I. IWRRRI Contract Requirements (cont)

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

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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

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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)

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

- Irrigated lands
- ET Adjustment Factors

These two are not on the slides on the web

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IIb. Review of what we said was
important

Copies of Slides from August
2008

(blue border)

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11



Prioritization Review

ESHMC

August 2008

B. Contor

Review

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

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List of activities from Sean's discussion

Microsoft Excel - Criteria_And_Ranking_20070912_Blank.xls

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Arial 11 B I U \$ % , +.0 -.00

A4 = Item

	A	C	D	E	F	G	H	I
1	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							
2								
3	Intermediate Term - FY2008 and FY2009							
4	Item	Abbreviated Activity Name	Effort	Considerations				
5	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.				
6	Extend dataset to include 2006, possibly 2007	Extend data	Large	Already commenced w/ IDWR funding.				
7	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				
8	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.				
9	Incorporate transient river and reservoir stage	River stage	Moderate	Linked to monthly time steps				
10	Re-aggregation of riverbed conductance reaches	Cond reach	Small					
11	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				
12	Evaluate multiple springs/cell - spring-specific elevations	Multi spring	Small/Large	Elevations will be difficult to determine, Start w/ Covington/Weaver elevation data				
13	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				
14	Change # of spring and river reaches	No. reaches	Small	Easy to implement, difficult to agree upon				
15	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 MODFLO w/ a water that honors the continuity equation.				

From 11/2007 ESHMC presentation

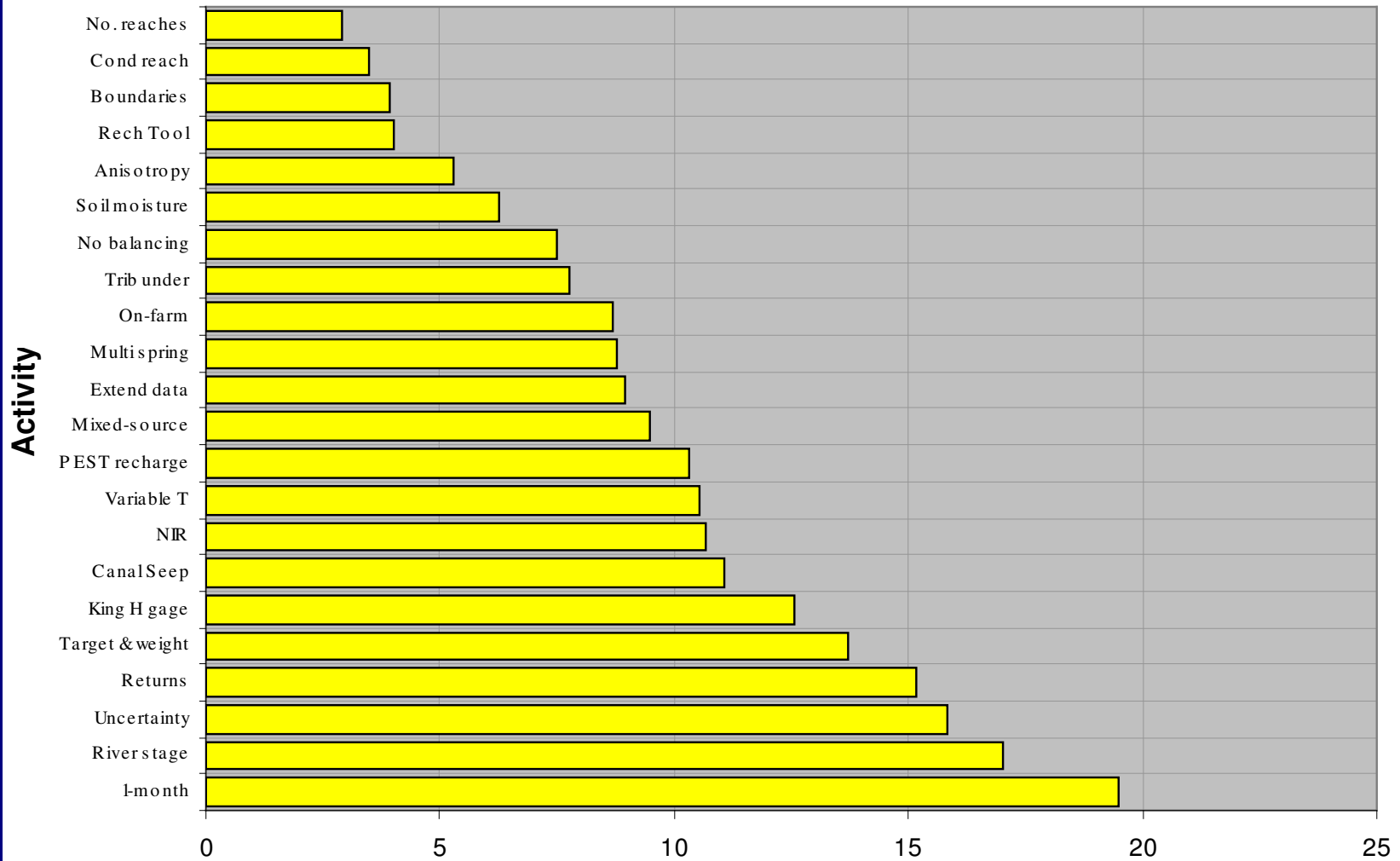
parameters, involves adding new functionality to RAN tool. The FORTRAN part of the recharge program has PEST hooks; therefore, this can probably be

Review

- We all ranked the activities & summarized

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Activites Ranking (excluding IWRRI)



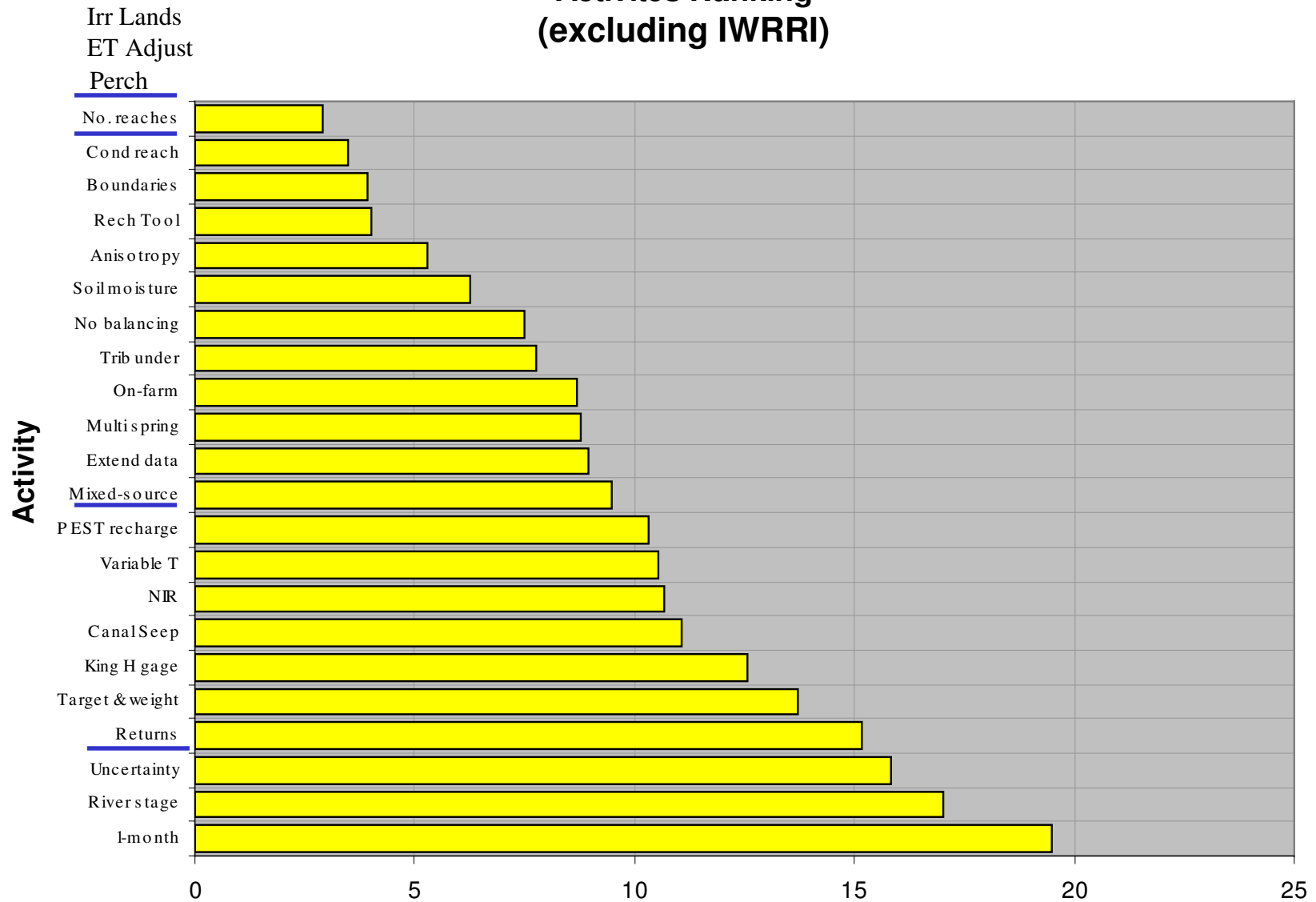
referred activities)

From 11/2007 ESHMC presentation

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

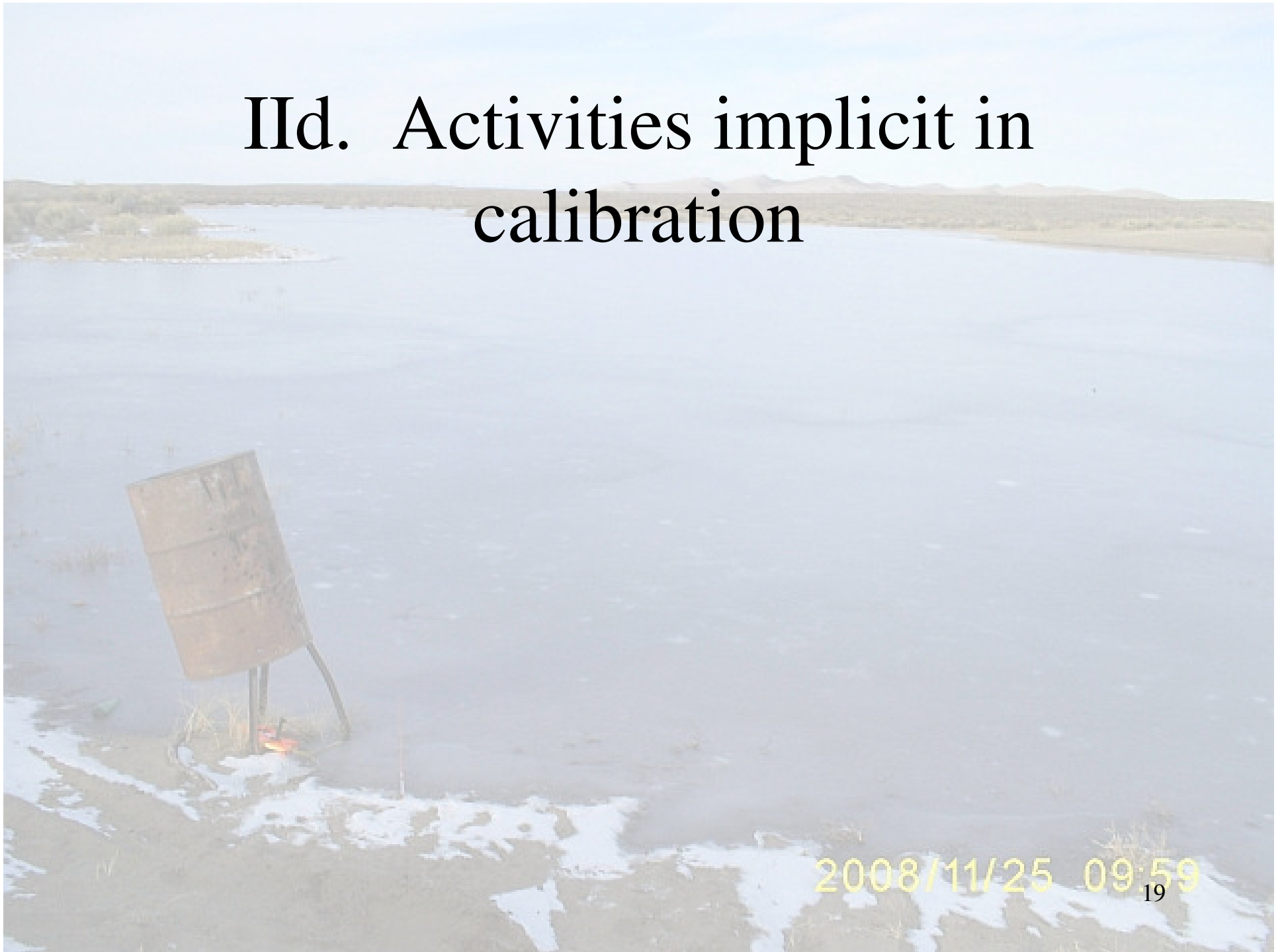
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Activites Ranking (excluding IWRRI)



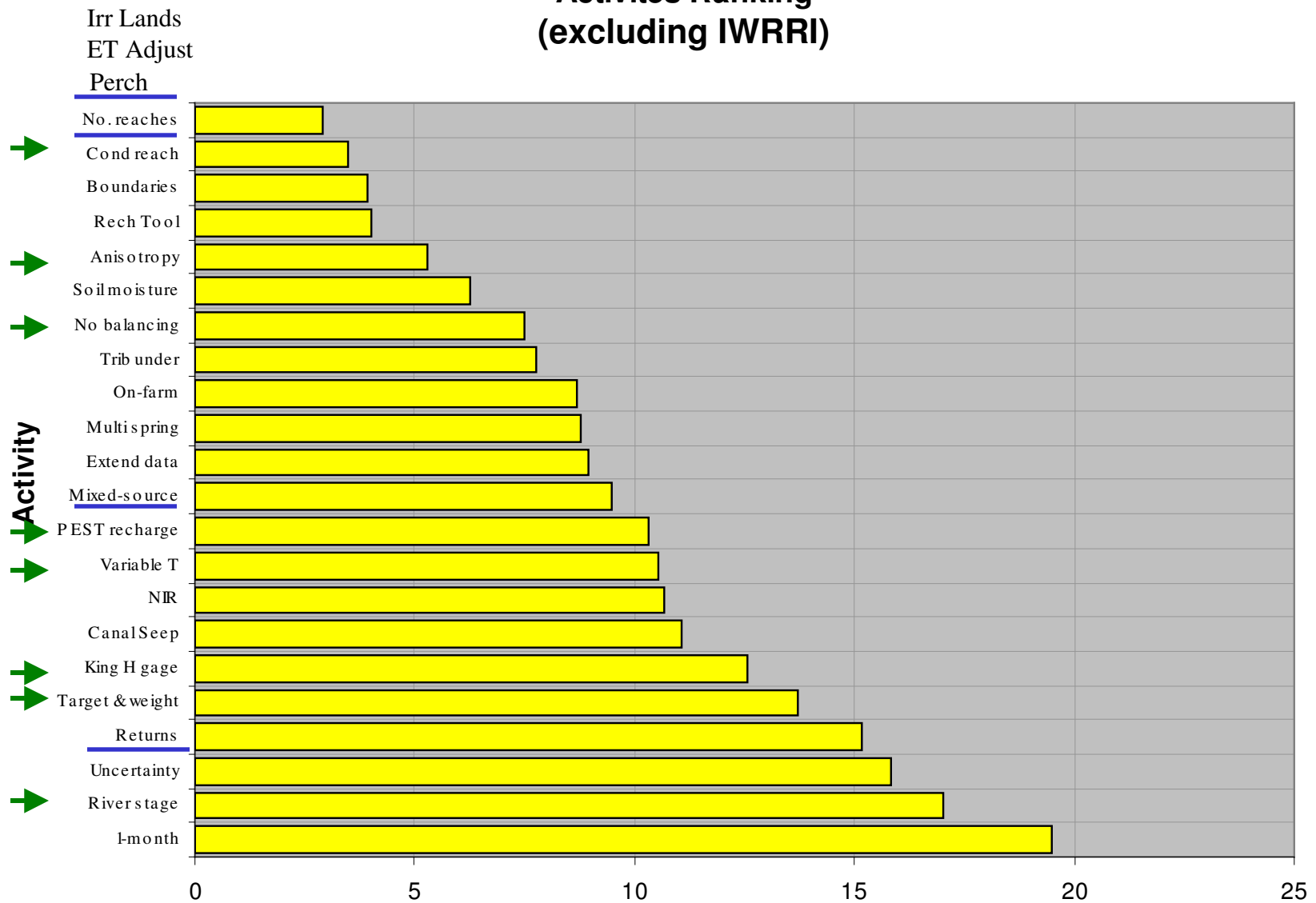
(high numbers mean preferred activities)

IId. Activities implicit in calibration



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Activities Ranking (excluding IWRRI)



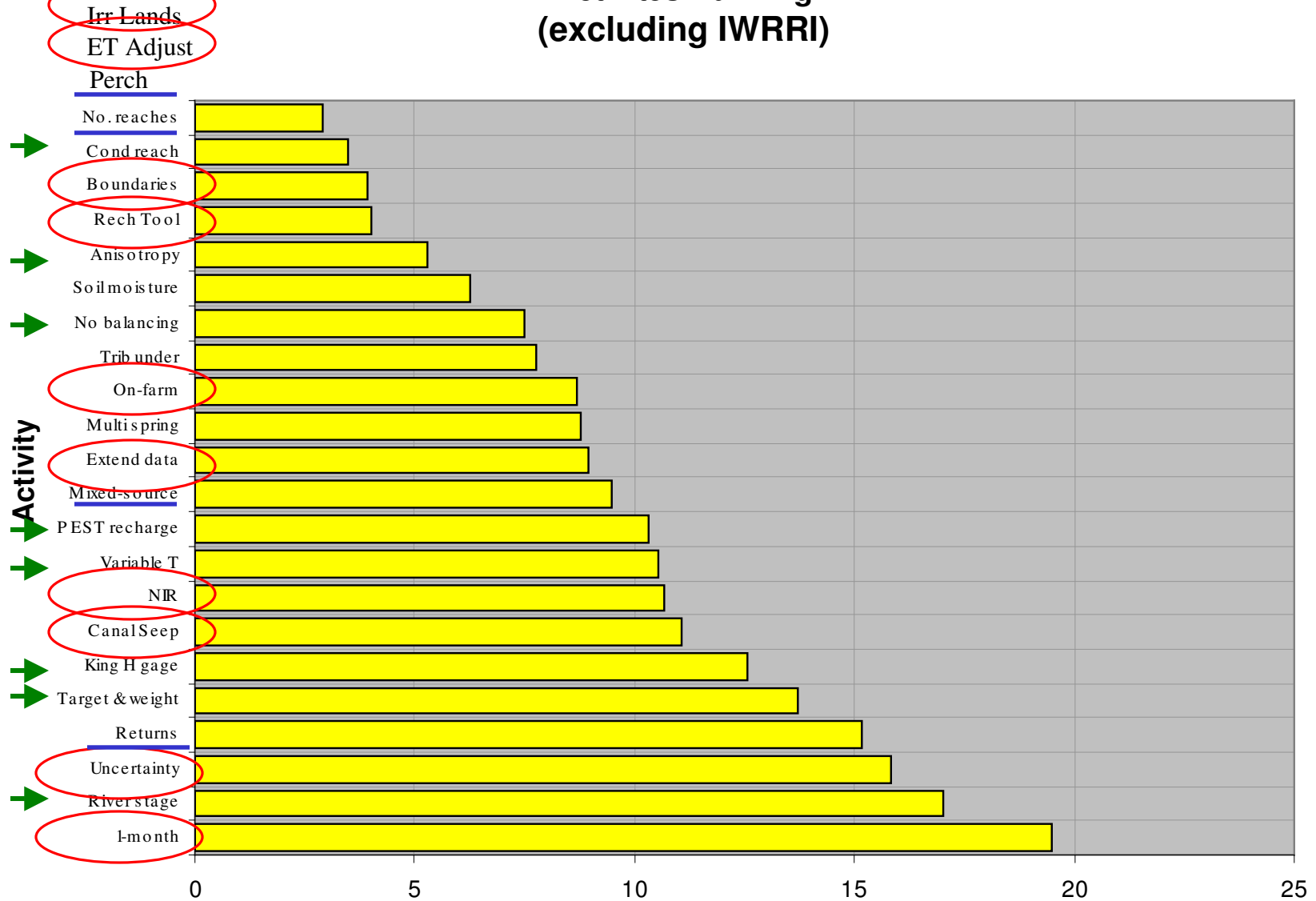
(high numbers mean preferred activities)

Ile. Additional tasks in light of priorities



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Activites Ranking (excluding IWRRI)



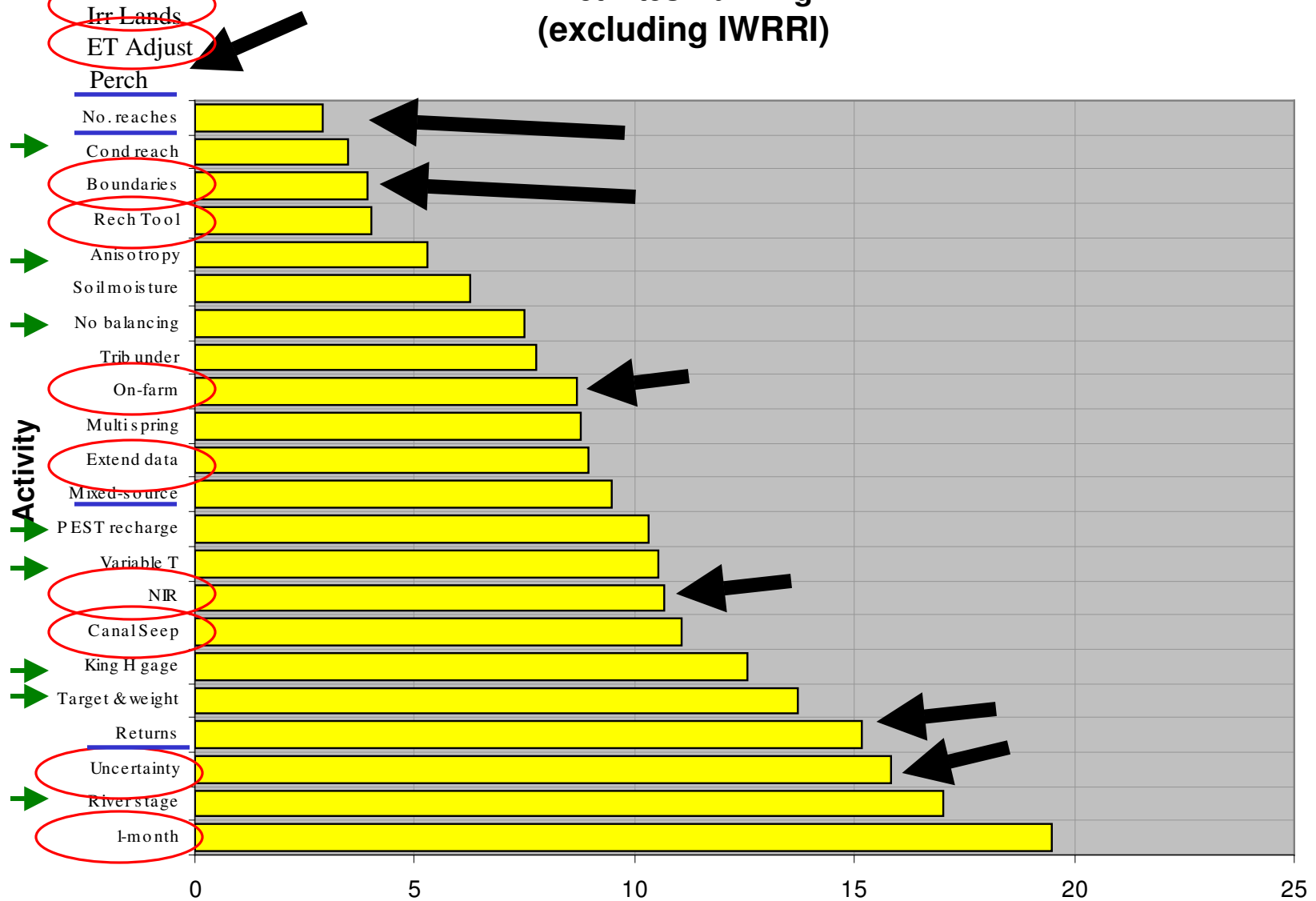
(high numbers mean preferred activities)

IIIf. Today's activities in light of priorities



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Activites Ranking (excluding IWRRI)



From 11/2007 ESHMC presentation

referred activities)

III. Are we on track?



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IIIa. IWRRRI 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. IWRRRI 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%**

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IIIa. IWRRRI Contract Requirements (cont)

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

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IIIa. IWRRRI 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%**

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IIIa. IWRRRI 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%

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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)

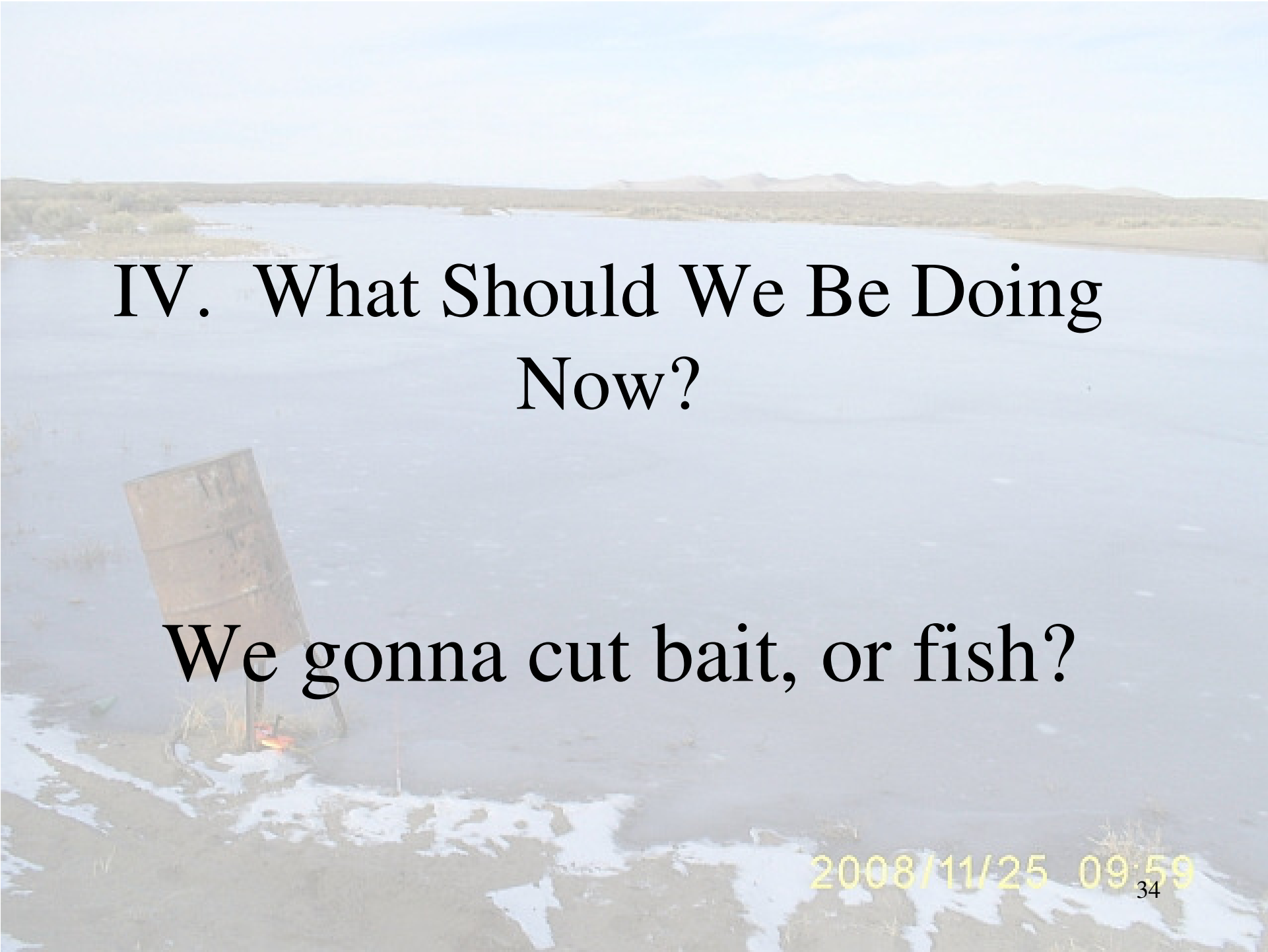
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IIIb. Additional work undertaken in response to ESHMC input (cont)

- Irrigated lands **30%**
- ET Adjustment Factors **5%**

(This slide not in the Web version)

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IV. What Should We Be Doing Now?

We gonna cut bait, or fish?

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CleanFunny (TM)

(courtesy Greg Sullivan)

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