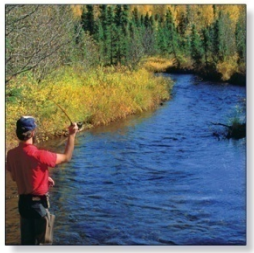


Preliminary Costs & Ranking Summary for Potential Conversion Projects

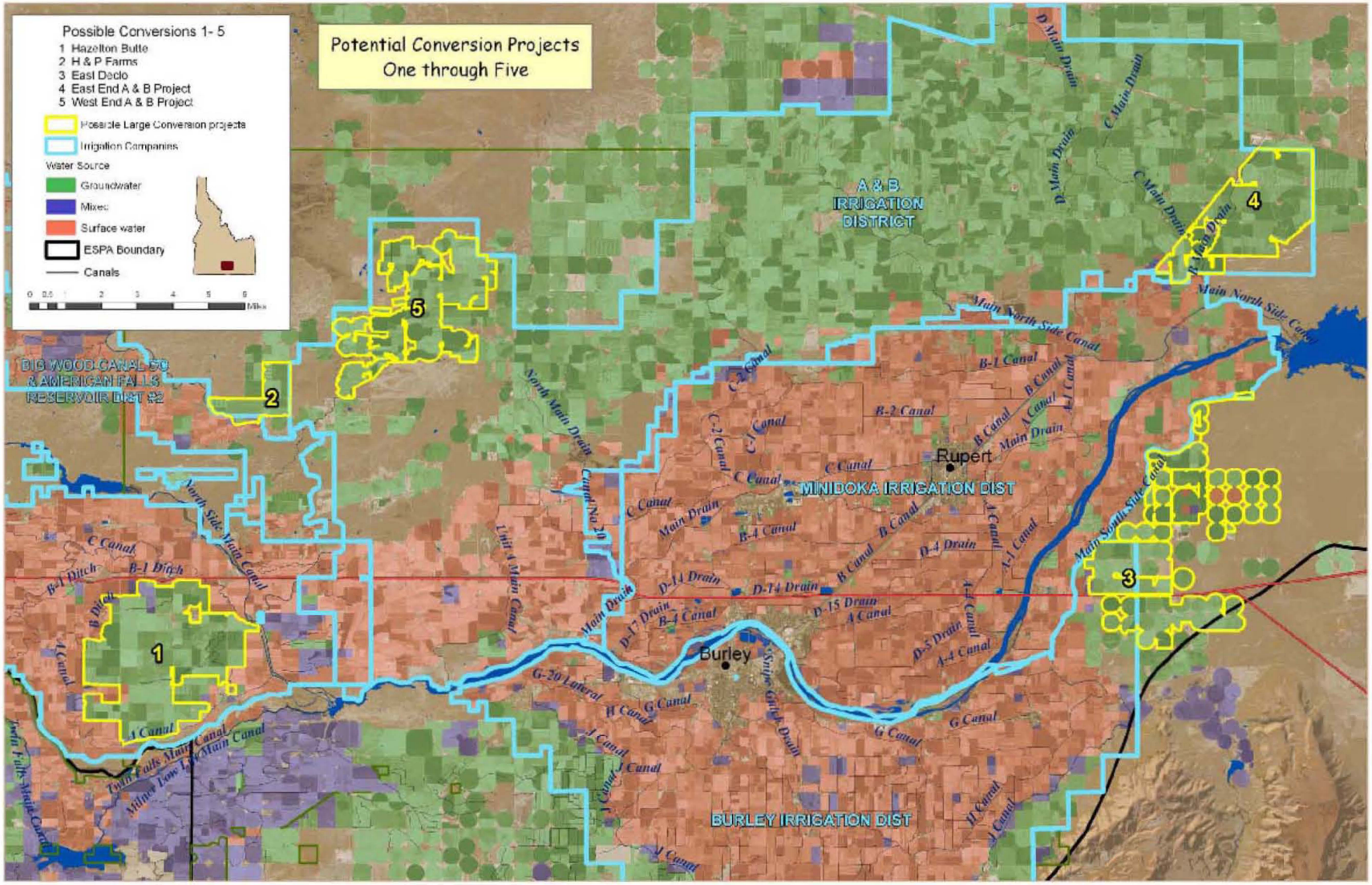
October 7, 2009

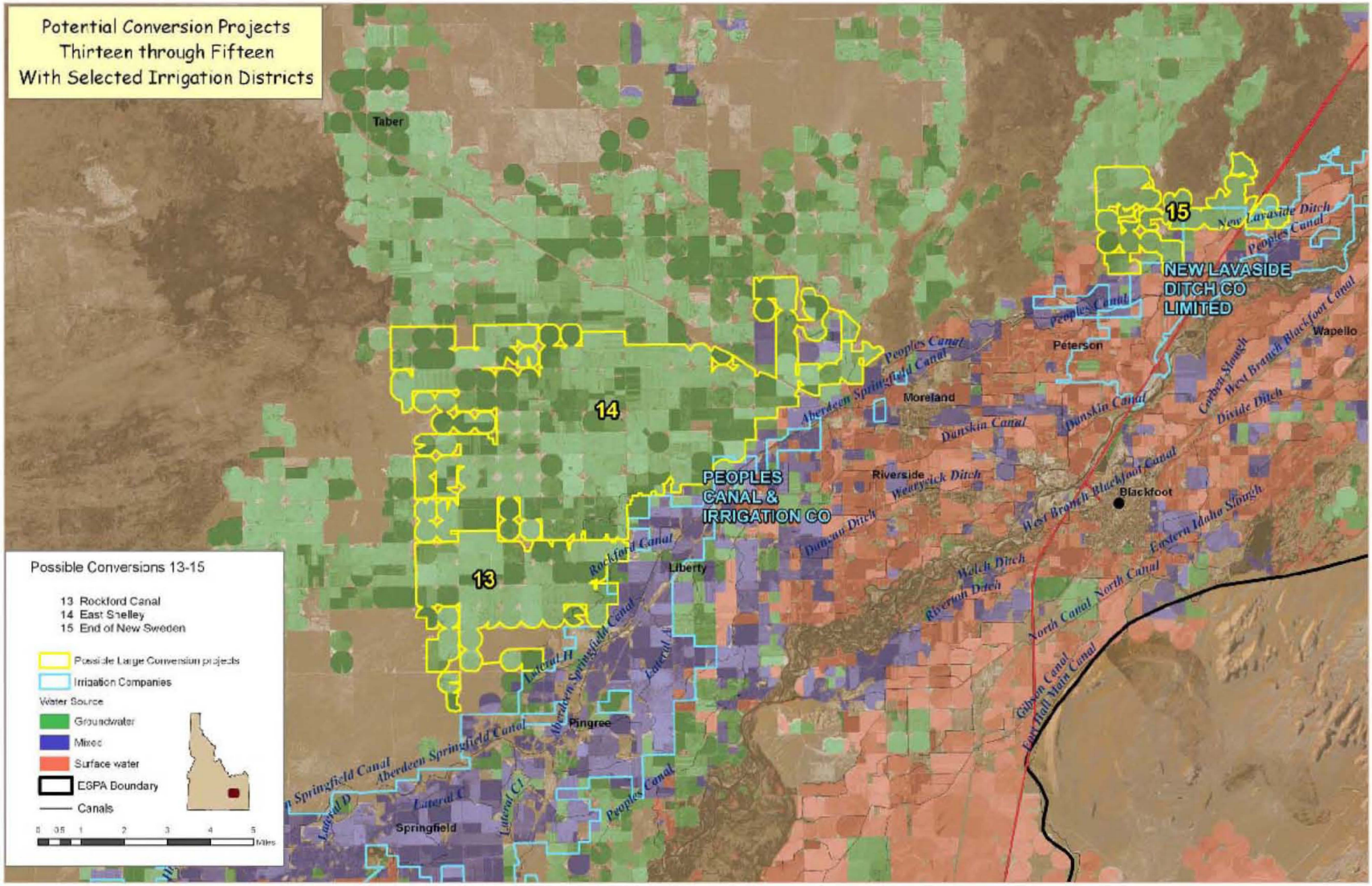
Conversions Working Group Meeting

Meeting Objectives

1. Review preliminary costs for selected project sites.
2. Review process for ranking, selection, and recommendation of conversion projects to the Implementation Committee.

IDAHO
Water Resource Board




Potential Conversion Projects
Thirteen through Fifteen
With Selected Irrigation Districts
Taber
14
13
15
PEOPLES CANAL & IRRIGATION CO
NEW LAVASIDE DITCH CO LIMITED
Peterson
Moreland
Riverside
Blackfoot
Liberty
Pingree
Springfield
Wapello
Peoples Canal
Aberdeen Springfield Canal
Danskin Canal
Weatherick Ditch
Dunson Ditch
Rockford Canal
Lateral H
Lateral A
Lateral D
Lateral C
Lateral C1
Welch Ditch
Riverton Ditch
North Canal
Gibson Canal
Fort Hall Main Canal
West Branch Blackfoot Canal
Eastern Idaho Slough
Corbett Slough
Divide Ditch
New Lavaside Ditch
Possible Conversions 13-15
13 Rockford Canal
14 East Shelley
15 End of New Sweden
Possible Large Conversion projects
Irrigation Companies
Water Source
Groundwater
Mixed
Surface water
ESPA Boundary
Canals
0 .35 1 2 3 4 5
Miles

IDAHO Water Resource Board

Preliminary Project Cost Information

Site No. (Aug 3, 2009 Mtg Maps)	Project Name	Conveyance Company	Total Project Acres (ac)	Acres to Receive Assumed Application Rate (ac) [1]	Preliminary Project Cost Estimate [2]	Design Rate of Flow (cfs) [3]	Potential Volume of Reduced GW Pumping (af/yr) [4]	Volume of Surface Water Required to Deliver to Project (including Canal Losses) (af/yr) [5]	Estimated Annual Cost Savings from Reduced GW Pumping	Estimated Annual SW Pumping Costs [6]	Estimated Annual Conveyance Fees [7]	Total Project Cost/Acre (total project acres)	Total Project Cost/cfs	Total Project Cost/cfs/project acres
1(a)	Hazelton Butte (short design, reduced rate)	Milner-Gooding, North Side Canals	8600	4800	$9,500,000	60	9,600	12,480	*To Be Determined*	$167,720	$37,440	$1,105	$158,333	$18
1(b)	Hazelton Butte (long design, reduced rate)	Milner-Gooding, North Side Canals	8600	4800	$15,000,000	60	9,600	9,600		$220,580	$0	$1,744	$250,000	$29
1(c)	Hazelton Butte (long design, full rate)	Milner-Gooding, North Side Canals	8600	8600	$30,000,000	108	17,200	17,200		Not Avail	$0	$3,488	$277,778	$32
2	H & P Farms	Milner-Gooding Canal	1200	1200	$565,000	15	2,400	3,120		$62,000	$9,360	$471	$37,667	$31
5	West End A&B Project	Milner-Gooding Canal	6400	4800	$6,500,000	60	9,600	12,480		$247,500	$37,440	$1,016	$108,333	$17
13	Rockford	Aberdeen Springfield Canal	6990	6990	$7,500,000	88	13,980	18,174		$194,560	$54,522	$1,073	$85,227	$12
14	Moreland	Peoples or Aberdeen Springfield Canals	2200	2200	$2,000,000	27	4,400	5,720		$76,330	$17,160	$909	$74,074	$34

1. The design rate for each project was based on a assumed application requirement of 1 cfs per 80 acres or 5/8 inches per acres. Designs were developed based on a reduced flow rate for the Hazelton Butte 1(a) and 1(c), and West End A&B Projects to reduce project costs and to distribute excess canal capacity among multiple conversion projects. The reduced design rate of 60 cfs is expected to provide coverage at the assumed application rate to approximately 4800 acres.

2 Preliminary Project Cost Estimates generally include design of a mainline and pump system, but do not include costs associated with laterals to individual farms. The following system elements are included in the costs: Pipe materials, valves and connections, pond and trench excavation, rock saw, pumps, pump station or "vault" construction, road crossings, site survey, 30% contingency and engineering fees. Costs that are not included: Easements, measuring devices and monitoring wells, backflow protection devices (check valves), laterals. Note, costs referenced in this table are based on the high end of an estimated cost range.

3 The design rate for each project was based on an assumed application requirement of 1 cfs per 80 acres or 5/8 inches per acre.

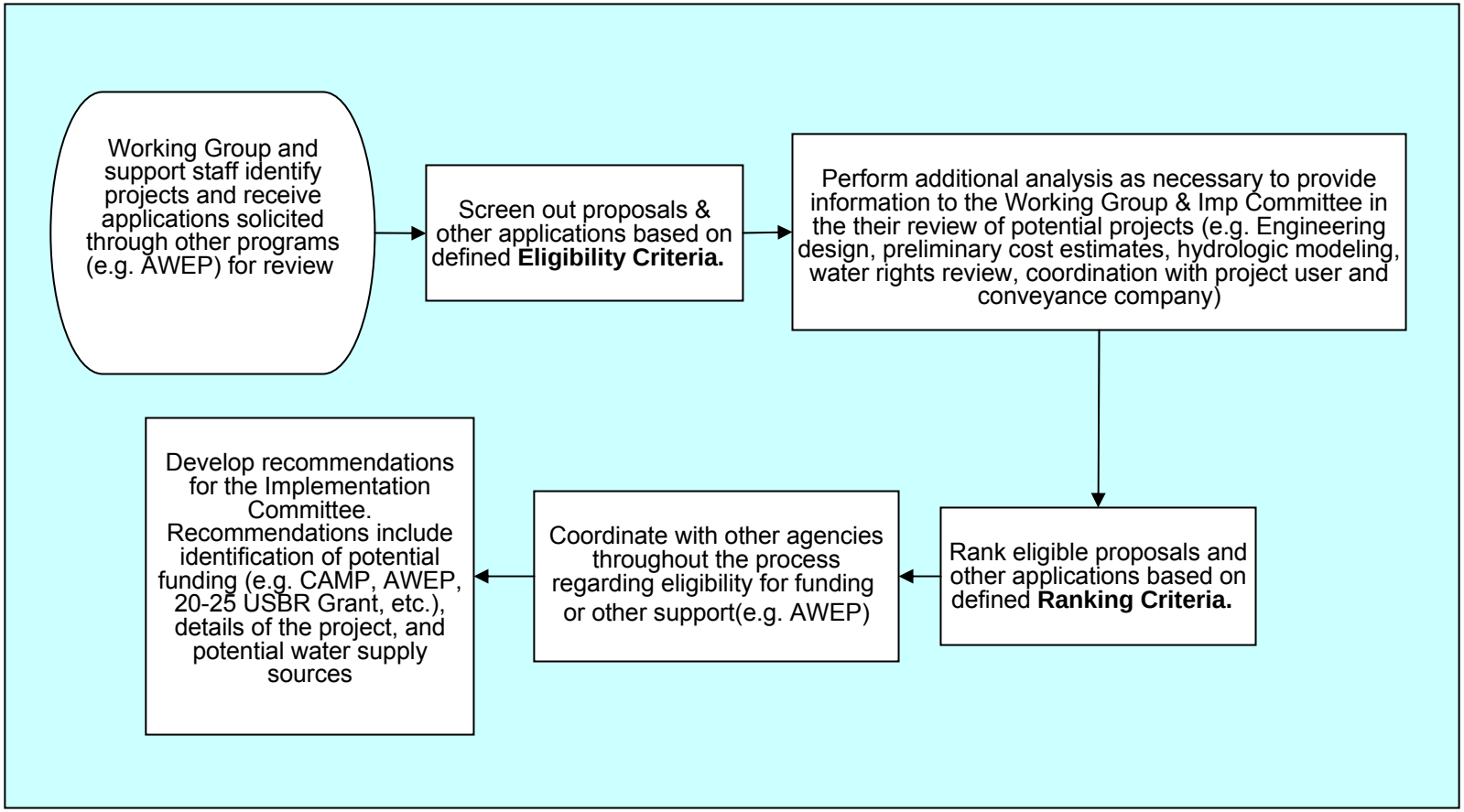
4 The potential annual volume of reduced ground water pumping in acre-feet was calculated based on two (2) acre-feet per acre times the number of project acres expected to receive the full assumed application rate.

5 Volume of surface water required to be delivered to the specified conversion site includes the estimated volume of ground water replaced plus 30% for conveyance losses. Conveyance losses were not applied to designs with diversions directly from Milner Lake.

6 Estimated pumping costs are based on a period of 3600 hours and a cost of six cents per kilowatt-hour.

7 Estimated conveyance fees are based on the current rate of conveyance for recharge at sites within the ESPA: $3.00 per acre-foot per year.

Conversion Project Proposal Review



IDAHO Water Resource Board

Conversion Project Eligibility Criteria

Working Group and support staff screen project proposals based on the following Eligibility Criteria:

	Eligibility Criteria (Yes/No) [1]	Hazelton Butte	H & P Farms	West End of A&B Irrigation District	Rockford	Moreland
1	Wells associated with a conversion project must be located within the ESPA boundary.	Yes	Yes	Yes	Yes	Yes
2	Conversion projects must result in a benefit to the ESPA through the reduction of ground water pumping.	Yes	Yes	Yes	Yes	Yes
3	Lands to receive conversion surface water must have valid ground water rights. [2]	Yes	Yes	Yes	Yes	Yes
4	Lands to receive surface water through a conversion project may not injure other existing water rights or adversely impact existing shareholders on the corresponding canal system.	Yes	Yes	Yes	Yes	Yes
5	Conversion projects proposing a reduction in ground water from supplemental wells are not eligible.	Yes	Yes	Yes	Yes	Yes
6	Conveyance Company has indicated it is willing to cooperate in delivering water to conversion projects (capacity and infrastructure requirements to be determined).	Yes	Yes	Yes	Yes	Yes
	Eligibility Determination	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**

1. Proposed Projects must qualify under all identified Eligibility Criteria (all Yes).

2. A preliminary review shall be performed by support staff to determine eligibility. Action may be required by individual owners within a group system to clarify or resolve potential water right issues.

Conversion Project Ranking Table - Initial Score

				Hazelton Butte (Short Design, Reduced Rate)		Hazelton Butte (Long Design, Reduced Rate)		Hazelton Butte (Long Design, Full Rate)		H & P Farms		West End of A&B Irrigation District		Rockford		Moreland		Example Small Project	
	Ranking Criteria	Scoring	Points	Project Information	Score	Project Information	Score	Project Information	Score	Project Information	Score	Project Information	Score	Project Information	Score	Project Information	Score	Project Information	Score
1	Cost Benefit: **Cost/cfs/Project Acres Prorate projects to the nearest ten.**	Lowest Cost Ratio	600	$18	400	$29	250	$32	230	$31	240	$17	430	$12	600	$34	220	$27	270
2	Potential volume of reduced ground water pumping (af/yr).	≥ 10,000 af/yr	600	9,600	400	9,600	400	17,200	600	2,400	200	9,600	400	13,980	600	4,400	200	1,800	100
		≥ 5,000 af/yr	400																
		≥ 2,000 af/yr	200																
		≥ 1,000 af/yr	100																
		< 1,000 af/yr	50																
3	Projects involving multiple farms or group projects.	Group project	500	Yes	500	Yes	500	Yes	500	No	0	Yes	500	Yes	500	Yes	500	No	0
		Individual project	0																
4	Availability of capacity in canal system.	Full Season	500	Full	500	Full	500	Full	500	Full	500	Full	500	Full	500	Partial	100	Full	500
		Partial Season	100																
5	Identified environmental constraints? Score based on level of concern.	High	-500	None	0	None	0	None	0	None	0	None	0	None	0	None	0	None	0
		Low	-200																
		None	0																
6	Identified environmental benefits? Score based on level of concern.	High	500	None	0	None	0	None	0	None	0	None	0	None	0	None	0	None	0
		Low	200																
		None	0																
7	Is surface water for the project provided by project user?	All	400	None	0	None	0	None	0	None	0	None	0	None	0	None	0	None	0
		Partial	200																
		None	0																
8	Depth to static ground water in the well(s) proposed to be shut down when surface water for conversion projects is available (use greatest depth).	≥ 300 ft	200	≥ 300 ft	200	≥ 300 ft	200	≥ 300 ft	200	≥ 300 ft	200	≥ 200 ft	100	< 100 ft	0	< 100 ft	0	≥ 300 ft	200
		≥ 200 ft	100																
		≥ 100 ft	50																
		< 100 ft	0																
9	Willingness to cost share in project construction or seek funding from other sources?	All	200	Partial	100	Partial	100	Partial	100	Partial	100	Partial	100	Partial	100	Partial	100	All	200
		Partial	100																
		None	0																
10	Willingness to cost share in project O&M or Conveyance Fees?	All	200	Partial	100	Partial	100	Partial	100	Partial	100	Partial	100	Partial	100	Partial	100	All	200
		Partial	100																
		None	0																
11	How long is the Project User willing to participate in the ESPA CAMP process?	≥ 15 years	300	≥ 15 years	300	≥ 15 years	300	≥ 15 years	300	≥ 15 years	300	≥ 15 years	300	≥ 15 years	300	≥ 15 years	300	≥ 5 years	100
		≥ 5 years	100																
		< 5 years	0																
12	Furthest distance of water delivery from source canal.	< 1 mile	200	≥ 5 mile	0	≥ 5 mile	0	≥ 5 mile	0	≥ 1 mile	100	≥ 5 mile	0	≥ 1 mile	100	≥ 1 mile	100	< 1 mile	200
		≥ 1 mile	100																
		≥ 5 mile	0																
13	Level of Project User Interest.	High	200	High	200	High	200	High	200	Medium	100	High	200	Medium	100	Low	0	High	200
		Medium	100																
		Low	0																
14	Level of conveyance company's willingness to participate in delivery to proposed projects.	High	100	Medium	50	Medium	50	Medium	50	Medium	50	High	100	High	100	Low	0	High	100
		Medium	50																
		Low	0																
15	Amount of responsibility required by the State for operation and maintenance on the pumping plant and infrastructure.	High	-50	High	-50	High	-50	High	-50	Low	0	Medium	-25	Medium	-25	High	-50	Low	0
		Medium	-25																
		Low	0																
16	Level of administration required by the State for water delivery.	High	-50	High	-50	High	-50	High	-50	High	-50	Medium	-25	Medium	-25	High	-50	Low (own supply)	0
		Medium	-25																
		Low	0																
			TOTAL SCORE	**2700**		**2550**		**2730**		**1890**		**2705**		**2975**		**1570**		**2070**	

FINAL RANKING

- **Additional considerations by the Working Group that may not be reasonable to score can be included in the final ranking.**
- **Is additional information necessary to generate recommendations for the Implementation Committee?**

	Ranking Criteria	Basis for Selection/Ranking	Hazelton Butte (Short Design, Reduced Rate)		Hazelton Butte (Long Design, Reduced Rate)		Hazelton Butte (Long Design, Full Rate)		H & P Farms		West End of A&B Irrigation District		Rockford		Moreland		Example Small Project	
	PROJECT RANKING BASED ON INITIAL SCORING		--		--		2		5		3		1		6		4	
1	Geographic location (above and below American Falls).	Select equal number above and below based on highest Initial Scores.	Below		Below		Below	X	Below		Below		Above	X	Above		Below	
2	Are there water right issues associated with the land proposed for conversion that will require action by the project user and approval by the IDWR?	No Yes - Not prohibitive Yes - Prohibitive (Deny Proposal)																
3	Working Group Discretionary Criteria or Considerations.																	
		FINAL RANKING																

IDAHO
Water Resource Board

Administration of Selection, Construction and Long-Term Management of Conversion Projects