Northwest Power and Conservation Council

February 28 2008

MEMORANDUM

TO: Council members

FROM: Tony Grover

SUBJECT: Council decision to request ISRP review of project reporting metrics

Member Karier will discuss a staff compiled list of reporting metrics for fish and wildlife projects culled from ISRP reports and reviews under the following categories: artificial production and supplementation projects, wildlife monitoring, and habitat projects.

He suggests the Council request the ISRP answer the following questions:

1. Does the list of metrics for various categories represent the current thinking of the ISRP, and if not, which should be added, deleted or modified?

2. Based on the results of question 1, what is the priority for acquiring and reporting these metrics for the various categories?

3. Can the ISRP distinguish between implementation metrics to be required of all projects (depending on project type), and effectiveness metrics, which would apply to a narrower set of more intensively monitored projects?

These metrics should allow the ISRP to more effectively evaluate all project results, as specified in the amendment to the Power Act. In addition, the prioritization will ensure that the most important metrics have the highest probability of being funded.

The list and a draft letter to ISRP is attached.

w:\tg\ww\mar2008pktmemo-reporting mertrics.doc

851 S.W. Sixth Avenue, Suite 1100
Portland, Oregon 97204-1348
www.nwcouncil.org

Steve Crow
Executive Director

503-222-5161
800-452-5161
Fax: 503-820-2370

APPENDIX A - REPORTING METRICS FOR HABITAT PROJECTS
(See ISRP 2007-1 Retrospective Report)

The ISRP notes,

> "Implementation monitoring should be a part of every project, and plans for some level of effectiveness monitoring should be included in most project proposals. Alternatively, there should be an explicit description in the proposal of the way in which effects of the restoration project could be monitored as part of an ongoing effectiveness monitoring program at the subbasin scale."

The following was extracted from the 2006 ISRP Retrospective Report (ISRP 2007-1).

Implementation Monitoring (adapted from Bonneville's Pisces project tracking database):

Type of Habitat Improvement	**Implementation Metric**
Develop Terrestrial Habitat Features	# of features
Install Fence	# of miles of fence
Plant Vegetation	# of acres of planted; # of riparian miles treated
Weed Control	# of acres treated
Practice No-till and Conservation Tillage Systems	# of acres treated
Upland Erosion and Sedimentation Control	# of acres treated
Increase Instream Habitat Complexity	# of stream miles treated; # of structures installed
Realign, Connect, and/or Create Channel	# of stream miles before treatment; # of stream miles treated, including off-channels, after realignment
Decommission Road	# of road miles decommissioned
Improve/Relocate Road	# of road miles improved, upgraded, or restored
Remove vegetation	# of acres treated
Create, Restore, and/or Enhance Wetland	# of acres treated
Install Fish Passage Structure	# of miles of habitat accessed
Install Well	Amount of unprotected water flow returned to the stream by conservation in cubic feet per second; estimated # of miles of primary stream reach improvement
Remove/Install Diversion	# of miles of habitat accessed
Lease Land	# of acres of new lease; # of riparian miles protected
Trap and Haul	# of fish
Install Fish Screen	Flow rate at the screen diversion allowed by the water right; quantity of water protected by screening, as determined by what is stated in the water right or calculated based on flow rate
Remove/Modify Dam	# of miles of habitat accessed

Install Pipeline	Amount of unprotected water flow returned to the stream by conservation in cubic feet per second; estimated # of miles of primary stream reach improvement
Upland Erosion and Sedimentation Control	# of acres treated
Install Sprinkler	Amount of unprotected water flow returned to the stream by conservation in cubic feet per second
Enhance Floodplain	# of acres treated
Acquire Water Instream	# of miles of primary stream reach improvement; # of miles of total stream reach improvement, including primary and secondary reaches; amount of water secured; flow of water returned to the stream as prescribed in the water acquisition
Remove Mine Tailings	# of acres treated; tons of tailings removed

"The ISRP therefore supports the need for accurate implementation metrics as a necessary first step in any M&E effort. We suggest the following guidelines for improving implementation monitoring within several general categories of habitat improvement projects"

Project Type	**Implementation Monitoring Recommendations**
Riparian fencing; riparian vegetation management	• Actual measurements of miles of fence installed or number of trees planted or reduced density of invasive plants. • Photo-documentation at pre-determined photo points to provide a basis for changes in the condition of the fence or riparian zone over time. Digital images are easy to obtain and archive.
Erosion control	• Actual measurements of the number of acres treated and the types of control measures employed. • Photo-documentation at pre-determined photo points of the erosion control treatments applied to a site. The photos should provide a representative sampling of the entire area treated and the range of conditions to which treatments were applied.
Stream habitat improvement; channel realignment; floodplain reconnection	• Actual number of rearing habitat structures installed. • Actual length of stream receiving habitat treatments or channel bioengineering. • Acres of floodplain reconnected with channel. • Square meters of spawning habitat created or rehabilitated. • Photo-documentation of the stream or floodplain before and after treatment.
Water conservation (including water right acquisition); no-till or conservation tillage; improved irrigation systems (wells,	• Actual acres of land affected by the improved irrigation system. • Actual reduction in agricultural water withdrawals from streams or rivers – measured in cfs (cubic feet per second). • Actual amount of water conserved by installing well(s) – requires measurement of water yield from well in cfs.

pipelines, drip irrigation, reduced water consumption sprinklers)	• Amount of water released to instream flow from water rights acquisition (while this is usually a theoretical figure, actual before and after stream discharge measurements are helpful). • Any evidence of reduced surface erosion resulting from no-till or conservation tillage practices.
Road improvement, relocation, or decommissioning	• Actual miles of road decommissioned. • Actual miles of road relocated away from a riparian zone, floodplain, or unstable slope. • Number of road improvements actually implemented, e.g., # of water bars, ditch relief culverts, improved road crowns, and other sediment control measures. • Number of direct entry sediment points (ditches, culverts) eliminated.
Fish passage improvement; road crossing replacement; dam removal; trap and haul	• Photo-documentation of the site before and after treatment. • Thorough description of steps taken to ensure that site is passable (include description of passability at different flows and by different species/life history stages). • In the case of trap and haul projects, the actual number of fish captured and relocated above a barrier.
Terrestrial habitat improvement; land leases	• Actual number of acres treated or leased. • Photo-documentation of the habitat features improved.

Effectiveness Monitoring

"As a rule of thumb, some form of effectiveness monitoring should accompany any habitat project. That is, project sponsors should collect and analyze data that document whether the project is achieving, or is failing to achieve, its stated objectives and is realizing desired habitat and/or target population and/or multi-species benefits. The ISRP recognizes that habitat projects vary widely in scale and in type, and that elaborate effectiveness monitoring should not be required in every instance. However, we also recognize that the overall level of effectiveness monitoring by many projects in the past has not been adequate to address the basic question – are they working?"

"Using the same project types as given in the implementation monitoring table, and assuming that the project sponsor employs appropriate sampling protocols, the ISRP suggests the following metrics for effectiveness monitoring, recognizing that methodologies continue to be improved:"

Project Type	**Effectiveness Monitoring Recommendations**
Riparian fencing; riparian vegetation management	• Measurements of changes in ground cover over time (several years, if possible). This can be carried out by standard vegetation survey methods such as transects or regularly spaced vegetation plots. Sampling locations should include the outer riparian zone as well as the streambank. • Inventory of the developing riparian plant community as it recovers

	from grazing. It is important to track plant associations and monitor unwanted species. • Quantitative measurements of changes in riparian canopy density over time. This can be accomplished with canopy densiometers, fisheye photography coupled with computer analysis, or an array of light sensing devices (e.g., PAR sensors). Whatever the method, measurements should be taken throughout the project area and be replicated over time periods sufficient to capture trends. It is assumed most of the monitoring will occur in summer when shade is most important to aquatic ecosystems. Temperature measurements should accompany shade measurements. • Surveys of plant mortality due to browse pressure. This includes monitoring to determine livestock grazing as well as browsing by wildlife (ungulates, rodents, and beaver).
Erosion control	• Measurements of changes in ground cover over time (several years, if possible). This can be carried out by standard vegetation survey methods such as transects or regularly spaced vegetation plots. • Measurements of surface erosion over time using sediment collection trenches, erosion pins, or some other erosion study method. This is a difficult undertaking because it is often hard to sample enough sites to be fully representative of the project area, so it is unlikely to be carried out in most cases. It is, however, the most direct method of determining surface erosion. • Upstream-downstream and before-after comparisons of stream sedimentation at the project area. Turbidity measurements are much easier to analyze, but sufficient samples must be obtained to capture the range of turbidity variation, so automated samplers are usually needed. Deposited sediment is much harder to sample and analyze (e.g., freeze coring), but surrogate measures (e.g., embeddedness) may reveal trends if large changes occur. • Stream macroinvertebrates have sometimes been used to assess habitat degradation, and there are sediment-specific macroinvertebrate metrics (e.g., extent of gill fouling on mayflies), but great care must be used to partition the effects of a sediment control project from other factors that may influence sediment quantity in the stream channel.
Stream habitat improvement; channel realignment; floodplain reconnection	• Thorough inventory of stream habitat composition, preferably using a BACI design. Above and/or below stream reaches may serve as control sites if they possess similar gradients and other geomorphic features in common with the treated reach. To establish the longevity of instream structures inventories should be repeated over several years or until a major channel-forming flood occurs. • Where the goal is to increase channel sinuosity by realigning the channel, monitoring should track sinuosity over time to verify that desired changes have occurred and the stream will not revert back to its former alignment. This can be done remotely (e.g., air photos). • Where the goal is to reconnect the stream with its floodplain, measure the area of floodplain inundated at different flood stages and the duration flooded. • Periodic surveys of fish use of rehabilitated habitat in the project area, using techniques as quantitative as possible (this will range from electrofishing to snorkel counts, depending on conditions).

	Similar surveys should be carried out at control sites, again using a BACI design where possible. • Depending on the location and extent of the stream habitat improvement project, it might be possible to monitor the number of migrating adults and smolts, which can potentially provide a very powerful way of measuring productivity change. However, great care must be taken to ensure that adult spawning and smolt production occurred within the project reach, not somewhere else. In most cases, this can't be done unless the restoration treatment is applied to the entire available stream network. The alternative is to place permanent fish traps at the upstream and downstream boundary of the treated reach, but this often imposes maintenance problems and traps may occasionally fail.
Water conservation (including water right acquisition); no-till or conservation tillage; improved irrigation systems (wells, pipelines, drip irrigation, reduced water consumption sprinklers)	• Effectiveness monitoring should focus on two aspects of water conservation – the quantity of water added to instream flows as a result of the conservation action, and the quality of water returned to the stream, if this is part of the project. Water quantity should be measured as directly as possible (instream discharge and, where applicable, careful measurements of return water volume) and related to the natural hydrograph of the drainage system, e.g., does the project increase summer low flows? The quality of agricultural return water should be monitored, including sediment, temperature, and agriculturally-related chemical concentrations (particularly nutrients, hormones, herbicides, and pesticides). • Fish condition and abundance within and downstream from the reach receiving the additional water can be monitored and compared to control (usually upstream) sites. Fish abundance should be monitored using techniques as quantitative as possible. Fish condition – a ratio of weight to length – can provide a surrogate measure of trophic conditions in the stream. • Tissue samples of fish downstream from agricultural return water sites should be monitored for chemicals that might interfere with survival, growth, or reproduction.
Road improvement, relocation, or decommissioning	• Upstream-downstream and before-after comparisons of stream sedimentation at the project area. Turbidity measurements are much easier to analyze, but sufficient samples must be obtained to capture the range of turbidity variation, so automated samplers are usually needed. Deposited sediment is much harder to sample and analyze (e.g., freeze coring), but surrogate measures (e.g., embeddedness) may reveal trends if large changes occur. • Because many road relocation projects aim to get roads out of riparian zones, post-treatment effectiveness monitoring should include surveys of riparian vegetation condition, re-establishment of secondary channels that were cut off by the old road, and reconnection of the stream with off-channel wetlands and other floodplain features that were formerly isolated. Such surveys need not be repeated in multiple years as long as the riparian zone remains intact.
Fish passage improvement; road	• Actual surveys of fish use of the newly accessible section of stream. At a minimum, two or more foot surveys, or other appropriate

crossing replacement; dam removal; trap and haul	survey method, of the reach upstream from the former barrier (one early in the spawning season; one late) to determine how far up in the watershed adults migrate. This should be repeated for several years to capture a range of flow conditions and adult abundances. • Where feasible, determine smolt production from the newly available habitat. This will facilitate a much better understanding of the productivity of the upper watershed and the long-term benefits of the barrier removal project (dividing smolts going out by brood-year adults coming in gives a crude but valuable ratio of smolt production per adult). This should only be attempted where accurate estimates of adults and smolts are possible.
Terrestrial habitat improvement; land leases	• Effectiveness monitoring should include measures of the rate at which a site is returning to a desired condition. Quite often the focus will be on restoring a particular type of plant community, so survey techniques appropriate to plant assemblage succession should be used such as permanent vegetation plots. If the goal is to restore habitat for various wildlife species, direct census techniques (e.g., winter bird counts, pitfall traps for rodents, etc.) should be used. • Remote sensing can be used to track changes in canopy cover, forest composition, and other potentially useful measures of landscape change. Although these techniques can be expensive (e.g., LiDAR), the cost can often be spread among several projects if they are in close proximity.

APPENDIX B - REPORTING METRICS FOR WILDLIFE MAINTENANCE PROJECTS

Some habitat metrics also apply to wildlife projects. Habitat metrics identified above are not included in the wildlife metrics which follow.

Implementation Monitoring (Extracted from Bonneville's Pisces project tracking database):

Type of Wildlife Action	**Implementation Metric**
Land Purchase	Type of acquisition [Fee Title, New Easement, Renewed Easement, Exchange, Mix]
	Start date of easement (PISCES reporting is Optional)
	End date of easement (PISCES reporting is Optional)
	Start date of the purchase (PISCES reporting is Optional)
	# of riparian miles protected to 0.01
	# of riparian acres protected to 0.1
	# of minimum estimated HUs protected for wildlife to 1.0 (PISCES reporting is Optional)
	Start latitude of protected stream reach entered in decimal degrees to 0.000001 (PISCES reporting is Optional)
	End latitude of protected stream reach entered in decimal degrees to 0.000001 (PISCES reporting is Optional)
	Start longitude of protected stream reach entered in decimal degrees to 0.000001 (PISCES reporting is Optional)

	End longitude of protected stream reach entered in decimal degrees to 0.000001 (PISCES reporting is Optional)
	# of upland acres protected to 0.1
	# of wetland acres protected to 0.1
	# of stream kilometers credited for resident fish to 0.01 (PISCES reporting is Optional)
Conduct Controlled Burn	# of riparian acres treated to 0.1
Mark/Tag Animals	Describe
Produce Environmental Compliance Documentation	Are herbicides used as part of work performed under this contract?
Maintain Vegetation	According to PISCES, No metrics needed for this work element (PISCES reporting is Optional)
Investigate Trespass	According to PISCES, No metrics needed for this work element (PISCES reporting is Optional)
Remove Debris	According to PISCES, No metrics needed for this work element (PISCES reporting is Optional)
Develop Alternative Water Source	According to PISCES, No metrics needed for this work element (PISCES reporting is Optional)
Develop Pond	According to PISCES, No metrics needed for this work element (PISCES reporting is Optional)
Operate and Maintain Habitat/Passage/Structure	According to PISCES, No metrics needed for this work element (PISCES reporting is Optional)
Provide Access and Public Information	According to PISCES, No metrics needed for this work element (PISCES reporting is Optional)
Remove and/or Exclude Animals	According to PISCES, No metrics needed for this work element (PISCES reporting is Optional)

Additional Metrics for ISRP Consideration (adapted from from *Ecological Services Manual 101, 102, 103 Habitat as a Basis for Environmental Assessment*)

Type of Wildlife Action	**Implementation Metric**
Land Purchases, Leases, or Conservation Easements	Number of evaluation species
	List evaluation species
	List species described by the HSI Habitat Suitability Index (HSI)
	HSI value for each species
	Provide predicted change in HSI value from natural recovery processes in 5-year increments for the life of the project
	Provide predicted change in HSI value from enhancement actions in 5-year increments for the life of the project

	Area of available habitat for species of interest
	Optimum habitat conditions for the species of interest
	Number of samples collected per cover type
	Number of evaluation species per study site
	If relative value indices have been used, provide the weighting values applied
	HU's lost
	Baseline HU's
	HU's gained
	Average annual HU's per evaluation species
All Other Actions	HU's gained
	Cost shares
	The duration of the investment

Effectiveness Metrics are needed for wildlife projects

APPENDIX C - REPORTING METRICS FOR HATCHERY PROJECTS, INCLUDING SUPPLEMENTATION PROJECTS

Implementation Monitoring (adapted from Bonneville's Pisces project tracking database):

Type of Artificial Production Action	Implementation Metric
Trap and Haul	# of fish to 1.0
Acclimate Juvenile Fish	Provide purpose of production program [Supplementation, Harvest Augmentation, Research]
	# smolts released from program to 1.0
Incubate Eggs	Provide purpose of production program [Supplementation, Harvest Augmentation, Research]
	# of eggs into program to 1.0
	# of fry (button-up) produced to 1.0
Rear Fish	Provide purpose of production program [Supplementation, Harvest Augmentation, Research]
	# smolts into program (fish ponded) to 1.0
	# smolts released from program to 1.0
	# juveniles (presmolt) into program to 1.0
	# juveniles (presmolt) released from program to 1.0
	# of adults into program to 1.0
	# adults released from program to 1.0

Spawn Fish	Provide purpose of production program [Supplementation, Harvest Augmentation, Research]
	# of Female ad-clip (hatchery origin) fish to 1.0
	# of Female non-clip (natural origin) fish to 1.0
	# of Male ad-clip (hatchery origin) fish to 1.0
	# of Male non-clip (natural origin) fish to 1.0
	# of Jack ad-clip (hatchery origin) fish to 1.0
	# of Jack non-clip (natural origin) fish to 1.0
Trap/Collect/Hold/Transport Fish - Hatchery	Provide purpose of production program [Supplementation, Harvest Augmentation, Research]
	# of eggs (hatchery origin) to 1.0
	# of eggs (natural origin) to 1.0
	# of ad-clip (hatchery origin) smolts to 1.0
	# of non-clip (natural origin) smolts to 1.0
	# of ad-clip (hatchery origin) juveniles (presmolt) to 1.0
	# of non-clip (natural origin) juveniles (presmolt) to 1.0
	# of ad-clip (hatchery origin) adults to 1.0
	# of non-clip (natural origin) adults to 1.0
Mark/Tag Animals	R, M, and E Focal Area [Tributaries, Hydrosystem, Estuary, Ocean, Harvest, Hatchery, Systemwide, Emerging Issues]
Produce Hatchery Fish	R, M, and E Focal Area [Tributaries, Hydrosystem, Estuary, Ocean, Harvest, Hatchery, Systemwide, Emerging Issues]
	# juveniles (presmolt) released from program to 1.0
	# of Female ad-clip (hatchery origin) fish to 1.0
	# of Female non-clip (natural origin) fish to 1.0
	# of Male ad-clip (hatchery origin) fish to 1.0
	# of Male non-clip (natural origin) fish to 1.0
	# smolts into program (fish ponded) to 1.0

	# smolts released from program to 1.0
	# juveniles (presmolt) into program (fish ponded) to 1.0
	# adults into program (fish ponded) to 1.0
	# adults released from program to 1.0
	# of Jack ad-clip (hatchery origin) fish to 1.0
	# of Jack non-clip (natural origin) fish to 1.0
	# eggs into program (fish ponded) to 1.0
	# fertilized eggs into incubation program to 1.0
	# eggs released from program to 1.0
	# fry (button-up) produced to 1.0
Maintain Fish Health	According to PISCES, No metrics needed for this work element (PISCES reporting is Optional)
Maintain Hatchery	According to PISCES, No metrics needed for this work element (PISCES reporting is Optional)
Install Fish Monitoring Equipment	According to PISCES, No metrics needed for this work element (PISCES reporting is Optional)
Put and Take Fisheries	According to PISCES, No metrics needed for this work element (PISCES reporting is Optional)

Effectiveness Metrics are needed for Artificial Production Projects

Additional implementation or effectiveness metrics the ISRP may want to consider. These were originally developed by the ISAB
(See ISAB 2000-2); (ISAB 2000-3); (ISAB 2000-4)

REPORTING METRICS FOR HATCHERY PROJECTS

Hatchery Scale Questions - Details of Fish Culture Practices Inside the Hatchery
The following types of data/metadata1 should be collected each year for every "batch" of fish:

1. Species
2. Stock name, source and history
3. Parentage of the brood: hatchery origin versus naturally spawned parents; if both are involved, these should be treated as separate batches from those produced entirely from hatchery or naturally produced parents
4. Number of female parents
5. Size of female parents: with some sampling statistics defining how this was estimated, and providing confidence intervals
6. Age of female parents: with some sampling statistics defining how this was estimated, and providing confidence intervals
7. Dates of arrival of brood stock and water temperature at the hatchery or weir
8. Holding periods and temperatures of brood stock
9. Number of male parents
10. Size of male parents: with some sampling statistics defining how this was estimated, and providing confidence intervals

11. Age of male parents: with some sampling statistics defining how this was estimated, and providing confidence intervals
12. Mating design
13. Number of eggs per female: with some sampling statistics defining how this was estimated, and providing confidence intervals
14. Mean egg size: with some sampling statistics defining how this was estimated, and providing confidence intervals
15. Date of sperm collection/history of sperm treatment
16. Date(s) of egg stripping
17. Date(s) of fertilization
18. Fertilization success
19. Incubation conditions (temperature fluctuations - recorded with temperature loggers, not just averages, water source, substrate, jar, heath tray, etc)
20. Number of eggs fertilized: with some sampling statistics defining how this was estimated, and providing confidence intervals
21. Number of eyed eggs: with some sampling statistics defining how this was estimated, and providing confidence intervals
22. Egg to fry survival rate: with some sampling statistics defining how this was estimated, and providing confidence intervals
23. Hatching date(s)
24. Numbers of fry ponded: with some sampling statistics defining how this was estimated, and providing confidence intervals
25. Rearing history
    - translocation among facilities (dates and places)
    - ration
    - temperature
    - density
    - flow regime
    - cover and substrate
    - growth curve (size against time)
    - antibiotic/theraputant treatments
    - noteworthy events (disease outbreaks, pump or temperature control failures)
26. Fry to release survival rate (parr or smolt): with some sampling statistics defining how this was estimated, and providing confidence intervals
27. Release status (for each release batch)
    - Number and stage (fry, parr, smolt): with some sampling statistics defining how this was estimated, and providing confidence intervals
    - acclimation treatment
    - nature of release (volitional or not)
    - date(s) of release
    - length and weight at release: with some sampling statistics defining how this was estimated, and providing confidence intervals
    - location of release
    - ambient conditions at time of release (temperature, flow)
    - total numbers in each release batch
    - number CWT tagged in each release batch (and list tag codes)
    - number PIT tagged in each release batch (and list tag codes)
    - other marks (fin clip, temperature, or chemical signatures) for the release batch

Adults Returning to Hatcheries or Weirs, but not necessarily used for Breeding

By species and stock:

1. Dates and water temperature of arrival of brood stock at the hatchery or weir
2. Numbers of females
3. Size of females: with some sampling statistics defining how this was estimated, and providing confidence intervals
4. Age of females: with some sampling statistics defining how this was estimated, and providing confidence intervals
5. Number of males
6. Size of males: with some sampling statistics defining how this was estimated, and providing confidence intervals
7. Age of males: with some sampling statistics defining how this was estimated, and providing confidence intervals
8. Tags or marks on individual fish associated with the above data
9. Monitor the genetic composition of the returning population by estimating allele frequencies at allozyme (for retrospective analysis with previous baseline data) and microsatellite loci. This genetic monitoring should be conducted at least every three to four years.

REPORTING METRICS FOR SUPPLEMENTATION PROJECTS ARE NEEDED
(See ISAB Report 2003-3)(See ISAB Report 2005-15)
From ISAB 2003-3:

> "To be effective for this purpose, monitoring in each such experiment must measure, over time: 1) the actual rates of drawing naturally spawned and hatchery spawned fish for broodstock,2) the actual proportions of naturally spawned and hatchery spawned fish on the spawning grounds, 3) the natural spawning replacement rates in the supplemented population and in an unsupplemented control, and 4) the number of naturally spawning fish of naturally spawned origin in the supplemented population and an unsupplemented control. Because of natural variation in salmon productivity from one year to the next, and imperfect matching of treatment and control stocks and environments, reliable conclusions will require results from a number of implementations of this design. At present the experimental design(s) of the supplementation projects in the Columbia River Basin, based on the projects reviewed in our report, will not resolve these uncertainties."

Northwest Power and Conservation Council

DRAFT DRAFT DRAFT DRAFT DRAFT

TO: ISRP

FROM: W. Bill Booth, Council Chair

SUBJECT: ISRP Review Request of Project Reporting Metrics

The Council requests that the ISRP conduct a review of reporting metrics for fish and wildlife projects. In past project reviews and reports, the ISRP has identified the need for improved reporting. In fact the ISRP has not been able to report on the results of prior year expenditures because the information was not available. The purpose of this effort is to develop reporting metrics prior to contracting so that there is no uncertainty about the information required.

Council staff has compiled metrics contained in previous reviews, including some by the ISRP, under the following categories: artificial production and supplementation projects, wildlife monitoring, and habitat projects. See the attached appendices.

We request the ISRP answer the following questions:

1. Do the attached list of metrics for various categories represent the current thinking of the ISRP, and if not, which should be added, deleted or modified?

2. Based on the results of question 1, what is the priority for acquiring and reporting these metrics for the various categories?

3. Can the ISRP distinguish between implementation metrics to be required of all projects (depending on project type), and effectiveness metrics, which would apply to a narrower set of more intensively monitored projects?

We would like the ISRP to provide a prioritized list of metrics for each of the different types of projects. These metrics should allow the ISRP to more effectively evaluate all project results, as specified in the amendment to the Power Act. In addition, the prioritization will ensure that the most important metrics have the highest probability of being funded.

Thank you for your time and attention to this request.

---

c:\documents and settings\grover\desktop\reporting metrics6 feb 08.doc (Tony Grover)

851 S.W. Sixth Avenue, Suite 1100
Portland, Oregon 97204-1348
www.nwcouncil.org

Steve Crow
Executive Director

503-222-5161
800-452-5161
Fax: 503-820-2370