Memorandum

To: State Reach File Coordinators

From: Duane Anderson, PSMFC

Date : 4/23/97

Re: Visual Pass Data Request and Progress Report

Visual Pass Data Request

I have spoken with you all I believe (or communicated via email) as to the need for us to reconstruct the regional reach file coverages for submission to the national EPA/USGS contractors for pre visual pass processing. The primary reason for this is that the files previously submitted to Bruce Fisher were not consistently formatted. This creates a problem in generating files for the national folks. Furthermore, because PSMFC is the contractor for the visual pass, and because we would like to ensure the absolute best product possible both for submission to the national folks and for our use here until the NHD work is completed, we would rather receive the files directly from the States. Therefore, we are requesting that you re-submit your reach files to us **as soon as possible** using the following procedures and guidelines.

1) We would like 1 file per HUC as ARC/INFO .e00 export coverages. We just want the 100k lines, no bank coverages, or production, hatchery point covs etc. Please make a SINGLE zip or tar with all of your hucs. Also, especially Washington, please name your coverages with the first letter of your state and then the full huc id, like o17070306 or i17060208. When all the coverages are all named 'STR100', things get confusing.
2) projection should be identified in the describe of your coverage. I will project them here, just as long as I know what projection they're in and that it is consistent for all of your huc's. This was the case for the data I got, so I'm hoping this is no problem. . The coverage file directory structure should just have the basic .bnd's, tic's, aat's etc. Please drop all existing routes, sections, .hab's, etc. and just send a basic arc/line coverage.
3) We would like one, and only one format for the AAT table for each HUC. This table should conform **exactly** to the description in table 1. This is basically identical to the original format of the data that you received from Bruce Fisher with the addition of a single field, LLID. We would like each AAT table to be fully populated with these fields (with the exception of LLID's which are not complete), using these field names, lengths, and ArcInfo data Type specified in Table 1. Table 2 contains a listing of all HUC's in the PNW coverage, ordered by HUC, and the responsible agency. Tables 3-6 display what HUC's we would like from each state.

4) We have created an ftp area on our ftp site (ftp.psmfc.org) for each state:

/pub/vispass/id
/pub/vispass/mt
/pub/vispass/or
/pub/vispass/wa

You can either tar your files and place them here or send us a tape and an email letting us know what's there and when.

5) Please let me know by Friday, April 25th, the expected date on which you could deliver these files. If you have ANY QUESTIONS, call Duane or Matt, and we will do whatever it takes to clear things up.

6) An additional note from Matt: We are also in the process of building a regional ARC/INFO library structure for the 100k reaches and need to build a good index coverage. If you have polygon boundaries for your hucs which fully contain all of each hucs arcs, please send them my way.

Table 1. Data dictionary for 100K PNW reach files.

FIELD NAME	DESCRIPTION	Length	Info Type	N.DEC
FNODE#	ARC attribute - downstream node number	5	B	-
TNODE#	ARC attribute - upstream node number	5	B	-
LPOLY#	ARC attribute - identifies polygon number to the left of the arc when polygon topology has been computed.	5	B	-
RPOLY#	ARC attribute - identifies polygon number to the right of the arc when polygon topology has been computed.	5	B	-
LENGTH	Arc length (in meters in Reach File).	12	F	3
STR100-PNW#	ARC attribute - internal record number.	5	B	-
STR100-PNW-ID	ARC attribute - assignable User-ID number	5	B	-
MAJOR1	NMD DLG base category identifier. 50 identifies feature as hydrography.	6	I	-
MINOR1	NMD feature classifier.	6	I	-
MINOR2	NMD feature classifier.	6	I	-

MINOR3	NMD feature classifier.	6	I	-
HUC	8 digit USGS Hydrologic Unit Code number.	8	I	-
SEG	Reach segment number.	4	I	-
RMI	Reach Mile Indicator for RF1 reaches that were split. Distance in miles. Lowest reach with a particular SEG number has an RMI of 0.00.	5	N	2
FEAT_NAME	Hydrographic feature name. Sources were from USEPA 1:250,000- scale Trace Files, 1:100,000-scale manuscripts, and NMD Geographic Names data base. Additional stream names were added from available resources.	60	C	-
FEAT_SRC	Source of hydrographic feature.	2	I	-
STATE	Predominant state that a particular reach falls within.	4	C	-
STATE-2	Second most predominant state a particular reach falls within.	4	C	-
COUNTY	Predominant county a particular reach falls within.	15	C	-
COUNTY-2	Second most predominant county a particular reach falls within.	15	C	-
QUAD100	Predominant 1:100,000-scale quad a particular reach falls within.	26	C	-
QUAD100-2	Second most predominant quad particular reach falls within .	26	C	-
QUAD75	Predominant 1:24,000-scale quad a particular reach falls within.	25	C	-
QUAD75-2	Second most predominant quad a particular reach falls within.	25	C	-
CEN	Node number of allocation center a reach was allocated from. Non -Allocated reaches have a CEN value of 0. Results from ALLOCATE can be displayed in ARCPLOT.	5	B	-
CUMLENGTH	Cumulative length of arcs traversed from any allocation center.	12	F	2
DNARC	Down arc. The internal record number (cover#) of the previously allocated arc.	5	B	-
PNTR#	A record of the order of the Arc Attribute Table at the time	5	B	-

SAVENEG	Flag item that preserves a record of the features that were blocked prior to ALLOCATION. Value of 1 means a feature has been blocked.	1	I	-
SINUOUS	Ratio of the true distance of a reach over its straight line	5	N	2
UHUC1	Hydrologic Unit Code number of the first upstream reach for a particular reach.	8	I	-
UPNTR1	Pointer number (PNTR#) of first upstream reach.	5	I	-
UHUC2	Hydrologic Unit Code number of the second upstream reach for a particular reach.	8	I	-
UPNTR2	PNTR# of second upstream reach.	5	I	-
UHUC3	Hydrologic Unit Code number of the third upstream reach for a particular reach.	8	I	-
UPNTR3	PNTR# of third upstream reach	5	I	-
UFLAG	Flag item to indicate the presence of a fourth upstream reach for a particular reach. If true, UFLAG is set to 1.	1	I	-
DHUC	Hydrologic Unit Code number of downstream reach.	8	I	-
DPNTR	PNTR# of downstream reach.	5	I	-
CSEG	Northwest Power Planning Council (NPPC) added reach code.	3	I	-
CRMI	River mile designation assigned to NPPC reaches.	5	N	2
CNAME	Stream name of NPPC reaches.	30	C	-
LLID	The longitude/latitude stream identifier XXXXXXXYYYYYY where X denotes the longitude decimal degrees and Y denotes latitude decimal degrees	13	C	

Table 1. Complete list of HUCs and responsible State for PNW coverage.

State	HUC	
ID	16010102	
ID	16010201	
ID	16010202	
ID	16010203	
ID	16010204	
ID	16020309	
OR	16040201	
OR	16040205	
ID	17010101	Shared with MT, MT will provide
MT	17010101	
MT	17010102	
MT	17010103	
ID	17010104	
MT	17010104	Shared with ID, ID will provide
ID	17010105	
MT	17010105	Shared with ID, ID will provide
MT	17010201	
MT	17010202	
MT	17010203	
MT	17010204	
MT	17010205	
MT	17010206	
MT	17010207	
MT	17010208	
MT	17010209	
MT	17010210	
MT	17010211	
MT	17010212	
ID	17010213	Shared with MT, MT will provide
MT	17010213	
ID	17010214	
WA	17010214	Shared with ID, ID will provide
ID	17010215	Shared with WA, WA will provide
WA	17010215	
ID	17010216	Shared with WA, WA will provide
WA	17010216	
ID	17010301	
ID	17010302	
ID	17010303	
ID	17010304	
ID	17010305	Shared with WA, WA will provide
WA	17010305	
ID	17010306	Shared with WA, WA will provide
WA	17010306	
WA	17010307	
WA	17010308	
WA	17020001	
WA	17020002	
WA	17020003	
WA	17020004	
WA	17020005	
WA	17020006	
WA	17020007	
WA	17020008	
WA	17020009	
WA	17020010	
WA	17020011	
WA	17020012	
WA	17020013	
WA	17020014	
WA	17020015	
WA	17020016	
WA	17030001	
WA	17030002	
WA	17030003	

ID	17040104	
ID	17040105	
ID	17040201	
ID	17040202	
ID	17040203	
ID	17040204	
ID	17040205	
ID	17040206	
ID	17040207	
ID	17040208	
ID	17040209	
ID	17040210	
ID	17040211	
ID	17040212	
ID	17040213	
ID	17040214	
ID	17040215	
ID	17040216	
ID	17040217	
ID	17040218	
ID	17040219	
ID	17040220	
ID	17040221	
ID	17050101	
ID	17050102	
ID	17050103	Shared with OR, OR will provide
OR	17050103	
ID	17050104	
ID	17050105	Shared with OR, OR will provide
OR	17050105	
ID	17050106	Shared with OR, OR will provide
OR	17050106	
ID	17050107	Shared with OR, OR will provide
OR	17050107	
ID	17050108	Shared with OR, OR will

		provide
OR	17050108	
OR	17050109	
OR	17050110	
ID	17050111	
ID	17050112	
ID	17050113	
ID	17050114	
ID	17050115	Shared with OR, OR will provide
OR	17050115	
OR	17050116	
OR	17050117	
OR	17050118	
OR	17050119	
ID	17050120	
ID	17050121	
ID	17050122	
ID	17050123	
ID	17050124	
ID	17050201	Shared with OR, OR will provide
OR	17050201	
OR	17050202	
OR	17050203	
ID	17060101	Shared with OR, OR will provide
OR	17060101	
OR	17060102	
ID	17060103	Shared with WA, WA will provide
OR	17060103	
WA	17060103	
OR	17060104	
OR	17060105	
OR	17060106	Shared with WA, Both will provide
WA	17060106	Shared with OR, Both will

		provide
WA	17060107	
ID	17060108	Shared with WA, WA will provide
WA	17060108	
ID	17060109	Shared with WA, WA will provide
WA	17060109	
WA	17060110	
ID	17060201	
ID	17060202	
ID	17060203	
ID	17060204	
ID	17060205	
ID	17060206	
ID	17060207	
ID	17060208	
ID	17060209	
ID	17060210	
ID	17060301	
ID	17060302	
ID	17060303	
ID	17060304	
ID	17060305	
ID	17060306	
ID	17060307	
ID	17060308	
OR	17070101	Shared with WA, Both will provide
WA	17070101	Shared with OR, Both will provide
OR	17070102	Shared with WA, Both will provide
WA	17070102	Shared with OR, Both will provide
OR	17070103	
OR	17070104	
OR	17070105	Shared

		with WA, Both will provide
WA	17070105	Shared with OR, Both will provide
WA	17070106	
OR	17070201	
OR	17070202	
OR	17070203	
OR	17070204	
OR	17070301	
OR	17070302	
OR	17070303	
OR	17070304	
OR	17070305	
OR	17070306	
OR	17070307	
OR	17080001	Shared with WA, Both will provide
WA	17080001	Shared with OR, Both will provide
WA	17080002	
OR	17080003	Shared with WA, Both will provide
WA	17080003	Shared with OR, Both will provide
WA	17080004	
WA	17080005	
OR	17080006	Shared with WA, Both will provide
WA	17080006	Shared with OR, Both will provide
OR	17090001	
OR	17090002	
OR	17090003	
OR	17090004	
OR	17090005	

	17090006	
OR		
OR	17090008	
OR	17090009	
OR	17090010	
OR	17090011	
OR	17090012	
WA	17100101	
WA	17100102	
WA	17100103	
WA	17100104	
WA	17100105	
WA	17100106	
OR	17100201	
OR	17100202	
OR	17100203	
OR	17100204	
OR	17100205	
OR	17100206	
OR	17100207	
OR	17100301	
OR	17100302	
OR	17100303	
OR	17100304	
OR	17100305	
OR	17100306	
OR	17100307	
OR	17100308	
OR	17100309	
OR	17100310	
OR	17100311	
OR	17100312	
WA	17110001	
WA	17110002	
WA	17110003	
WA	17110004	
WA	17110005	
WA	17110006	
WA	17110007	
WA	17110008	
WA	17110009	
WA	17110010	
WA	17110011	
WA	17110012	
WA	17110013	
WA	17110014	

WA	17110015	
WA	17110016	
WA	17110017	
WA	17110018	
WA	17110019	
WA	17110020	
WA	17110021	
OR	17120001	
OR	17120002	
OR	17120003	
OR	17120004	
OR	17120005	
OR	17120006	
OR	17120007	
OR	17120008	
OR	17120009	
OR	18010101	
OR	18010201	
OR	18010202	
OR	18010203	
OR	18010204	
OR	18010205	
OR	18010206	
OR	18020001	

Table 2. Complete list of HUCs that Idaho will submit.

State	HUC
ID	16010102
ID	16010201
ID	16010202
ID	16010203
ID	16010204
ID	16020309
ID	17010104
ID	17010105
ID	17010214
ID	17010301
ID	17010302
ID	17010303
ID	17010304
ID	17040104
ID	17040105
ID	17040201
ID	17040202
ID	17040203
ID	17040204
ID	17040205
ID	17040206
ID	17040207
ID	17040208
ID	17040209
ID	17040210
ID	17040211
ID	17040212
ID	17040213
ID	17040214
ID	17040215
ID	17040216
ID	17040217
ID	17040218
ID	17040219
ID	17040220
ID	17040221
ID	17050101
ID	17050102
ID	17050104
ID	17050111
ID	17050112
ID	17050113
ID	17050114
ID	17050120
ID	17050121
ID	17050122
ID	17050123
ID	17050124
ID	17060201
ID	17060202
ID	17060203
ID	17060204
ID	17060205
ID	17060206
ID	17060207
ID	17060208
ID	17060209
ID	17060210
ID	17060301
ID	17060302
ID	17060303
ID	17060304
ID	17060305
ID	17060306
ID	17060307
ID	17060308

Table 3. Complete list of HUCs that Montana will submit.

MT	17010101
MT	17010102
MT	17010103
MT	17010201
MT	17010202
MT	17010203
MT	17010204
MT	17010205
MT	17010206
MT	17010207
MT	17010208
MT	17010209
MT	17010210
MT	17010211
MT	17010212
MT	17010213

Table 4. Complete list of HUCs that Oregon will submit.

	16040201
OR	
OR	17050103
	17050105
OR	
OR	17050107
	17050108
OR	
OR	17050110
	17050115
OR	
OR	17050117
	17050118
OR	
OR	17050201
	17050202
OR	
OR	17060101
	17060102
OR	
OR	17060104
	17060105
OR	
OR	17070101
	17070102
OR	
OR	17070104
	17070105
OR	
OR	17070202
	17070203
OR	
OR	17070301

	17070302
OR	
OR	17070304
	17070305
OR	
OR	17070307
	17080001
OR	
OR	17080006
	17090001
OR	
OR	17090003
	17090004
OR	
OR	17090006
	17090007
OR	
OR	17090009
	17090010
OR	
OR	17090012
	17100201
OR	
OR	17100203
	17100204
OR	
OR	17100206
	17100207
OR	
OR	17100302
	17100303
OR	
OR	17100305

	17100306
OR	
OR	17100308
	17100309
OR	
OR	17100311
	17100312
OR	
OR	17120002
	17120003
OR	
OR	17120005
	17120006
OR	
OR	17120008
	17120009
OR	
OR	18010201
	18010202
OR	
OR	18010204
	18010205
OR	
OR	18020001

Table 5. Complete list of HUCs that Washington will submit.

WA	17010215
WA	17010216
WA	17010305
WA	17010306
WA	17010307
WA	17010308
WA	17020001
WA	17020002
WA	17020003
WA	17020004
WA	17020005
WA	17020006
WA	17020007
WA	17020008
WA	17020009
WA	17020010
WA	17020011
WA	17020012
WA	17020013
WA	17020014
WA	17020015
WA	17020016
WA	17030001
WA	17030002

WA	17030003
WA	17060103
WA	17060106
WA	17060107
WA	17060108
WA	17060109
WA	17060110
WA	17070101
WA	17070102
WA	17070105
WA	17070106
WA	17080001
WA	17080002
WA	17080003
WA	17080004
WA	17080005
WA	17080006
WA	17100101
WA	17100102
WA	17100103
WA	17100104
WA	17100105
WA	17100106
WA	17110001

WA	17110002
WA	17110003
WA	17110004
WA	17110005
WA	17110006
WA	17110007
WA	17110008
WA	17110009
WA	17110010
WA	17110011
WA	17110012
WA	17110013
WA	17110014
WA	17110015
WA	17110016
WA	17110017
WA	17110018
WA	17110019
WA	17110020
WA	17110021

Visual Pass Update

I had a long conversation with Cindy McKay on Monday the 21st. Here is a quick highlight of the visual pass effort status:

- Shorelines will be kept in the PNW coverages as reaches. They will have reach codes and networking. VP could be complicated.

- The contractors started grinding the whole country through batch processing last week - regions 5,6, and 7 are about done. Regions 3 and 10 we will started this week. New feature data sent by Jeff Hutton will be incorporated into eastern MT. There are over 20 procedures in the blind pass and the process is complicated and slow.

- After blind pass processing, files are being passed to Keith McFadden (USGS Atlanta) for the construction of centerlines (this takes several days per region)

- Finally, files are passed back to RTI contractors for other GIS blind building - conflation, insert centerlines, etc. Procedures much slower than first pass of blind processing.

- When complete, RTI will provide tarred compressed coverages by QUADS to PSMFC. The first phase of the visual pass will be done at the Quad level and include:
  fixing conflation
  fixing centerline integration
  qa/qc on flow
  temporal differences

- When enough quads are done to complete an entire CU then CU Visual Pass steps will be done-
  qa/qc flow, reaches, networking, etc.

- When visual pass is complete, data must be loaded to FOD by Quads - Date will ultimately be available by by CU's from FOD.

- National mapping division will attempt to coordinate areas where CU's cross boundaries between major contractors (such as the Oregon - California border and the Montana - Wyoming Border)

- State of CA is doing CA VP
- WRD in NV is doing NV
- EPA Region 8 doing WY

- Next on list is PNW data. Building special procedures now - not all done. Need to resolve 51 border CU's - other than 9 on OR/CA border they will probably just use PNW numbers and hope there aren't many problems.

- We could get started with VISPASS on eastern MT - 80 CU's and 70 quads **BY THE TIME WE ARE DONE WITH THE TRAINING SESSION** (that will be a first - Montana before any other states!!)

- Can't really tell us schedule for PNW data - **This depends largely on how quickly we can get a clean data set to them for processing!!!**