

Pilot point Template Files

This memo discusses the format of the pilot point template files. PEST requires one pilot point template file for each layer in the model and for all properties (hydraulic conductivity, transmissivity, specific yield, etc) estimated using pilot points. A pilot point template file tells PEST the X and Y location of the pilot point, the zone the pilot point is part of, and where PEST should insert the parameter value it wants used during the next model run. MODFLOW uses the 2D to obtain the hydraulic conductivity, transmissivity, or specific yield distribution for each model layer.

Definitions

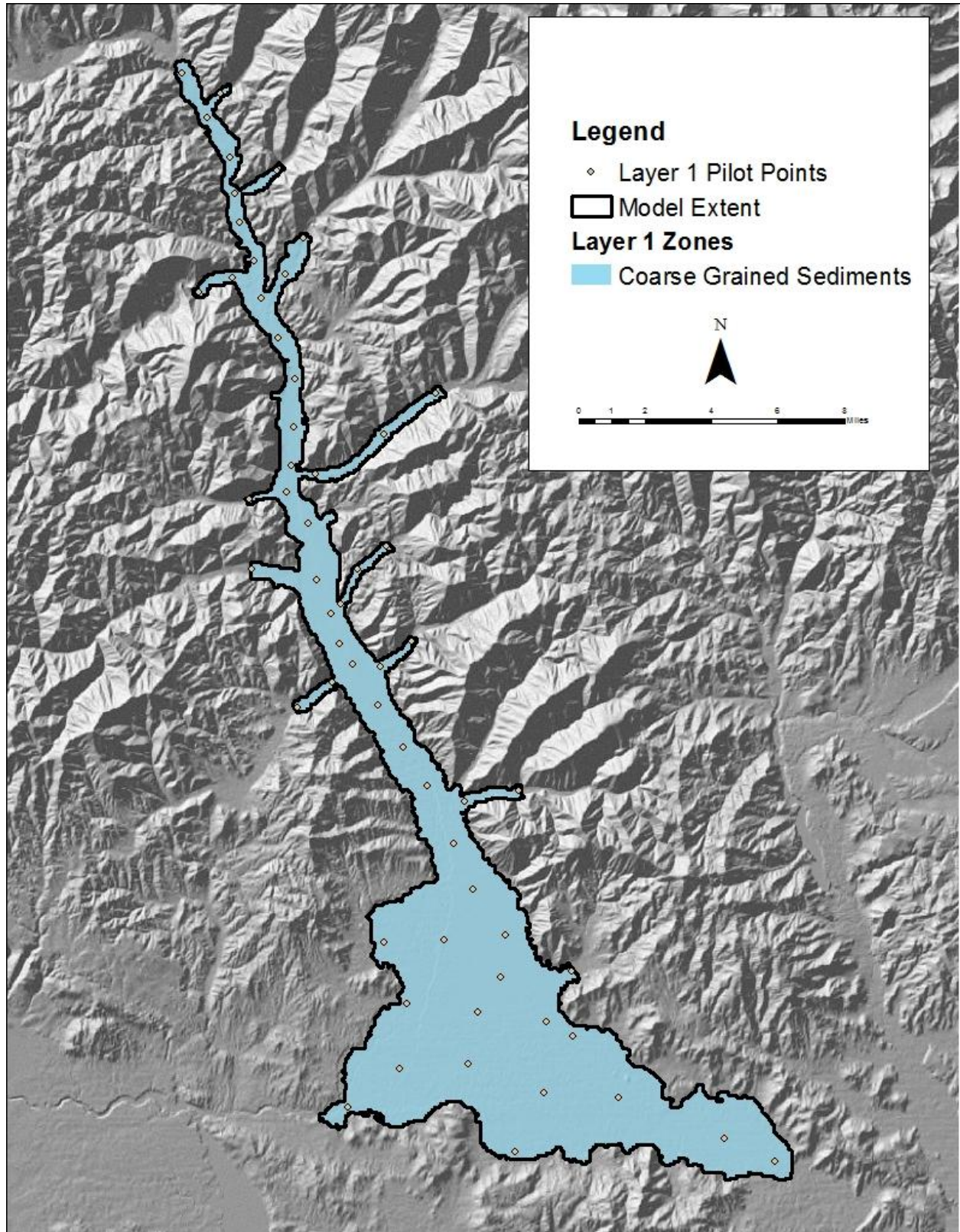
Template files tell PEST how to supply the model with the parameter values PEST wants the model to use for the current model run.

Pilot points are a 2D scatter point set where hydraulic properties are estimated and an interpolation scheme is used to calculate values to populate a model grid.

Discussion

The first line of a pilot point template file consists of the letters “ptf” followed by a parameter delimiter. The parameter delimiter is chosen by the user but it cannot be an alpha (a-z) or numeric (0-9), and it must not be used in any other capacity within the file. The next line contains the pilot point name, its easting and northing, the zone to which it belongs, and the parameter space. The parameter space consists of the space between and including a pair of parameter delimiters. The parameter name lies between the pair of parameter delimiters. PEST will replace the parameter delimiters and the parameter name with a new parameter value every time it runs the model. Attachment A contains a map showing the pilot point locations for layer 1 and a copy of the pilot point template file. Attachment B contains a map showing the pilot point locations and pilot point zones for layer 2 and a copy of the layer 2 pilot point template file. Attachment C contains a map showing the pilot point locations and pilot point zones for layer 3 and a copy of the layer 3 pilot point template file.

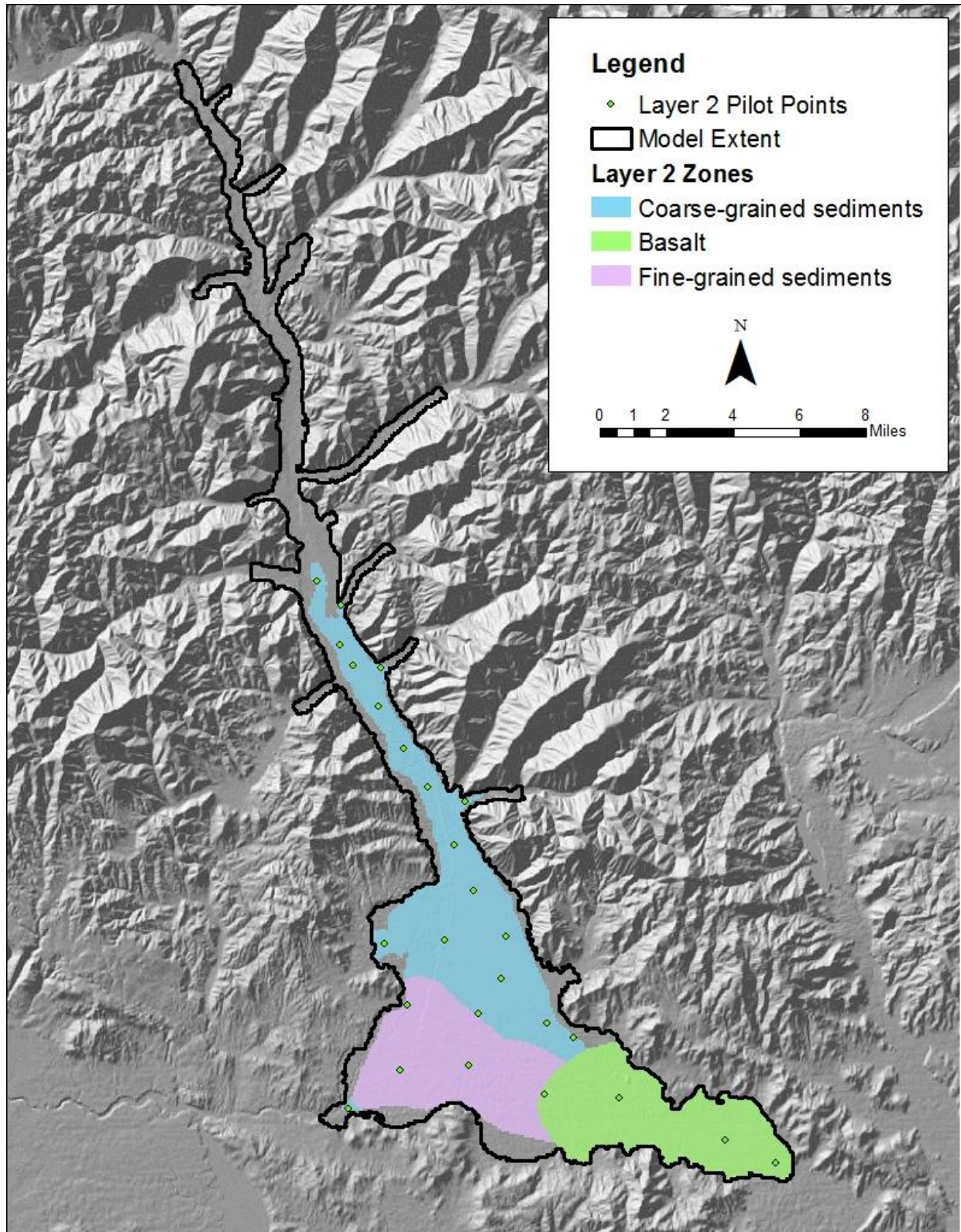
Attachment A



ptf \$

Llhppt1	2466563.834630	1397664.951620	1	\$	Llhppt1	\$
Llhppt2	2468450.465740	1396684.763660	1	\$	Llhppt2	\$
Llhppt3	2467791.245870	1395536.579300	1	\$	Llhppt3	\$
Llhppt4	2468870.748030	1393568.075360	1	\$	Llhppt4	\$
Llhppt5	2471155.482600	1392982.604190	1	\$	Llhppt5	\$
Llhppt6	2469129.828550	1391868.176960	1	\$	Llhppt6	\$
Llhppt7	2469352.078990	1390480.699190	1	\$	Llhppt7	\$
Llhppt8	2470050.580390	1388593.475410	1	\$	Llhppt8	\$
Llhppt9	2467364.525020	1387082.172390	1	\$	Llhppt9	\$
Llhppt10	2469034.578360	1387774.323780	1	\$	Llhppt10	\$
Llhppt11	2470431.581150	1386783.721790	1	\$	Llhppt11	\$
Llhppt12	2472457.235200	1389672.977570	1	\$	Llhppt12	\$
Llhppt13	2471561.883410	1387977.524180	1	\$	Llhppt13	\$
Llhppt14	2471250.732790	1384876.177980	1	\$	Llhppt14	\$
Llhppt15	2472038.134360	1382907.674040	1	\$	Llhppt15	\$
Llhppt16	2471968.284220	1380581.029390	1	\$	Llhppt16	\$
Llhppt17	2471860.334010	1378688.725600	1	\$	Llhppt17	\$
Llhppt18	2469853.729990	1377075.822380	1	\$	Llhppt18	\$
Llhppt19	2471631.733550	1377393.323010	1	\$	Llhppt19	\$
Llhppt20	2478872.018030	1382178.692580	1	\$	Llhppt20	\$
Llhppt21	2476323.122930	1380203.838630	1	\$	Llhppt21	\$
Llhppt22	2473052.866390	1378279.784790	1	\$	Llhppt22	\$
Llhppt23	2472657.895600	1375876.939980	1	\$	Llhppt23	\$
Llhppt24	2473064.296410	1373178.184580	1	\$	Llhppt24	\$
Llhppt25	2469965.490220	1373673.485570	1	\$	Llhppt25	\$
Llhppt26	2473769.147820	1371546.231320	1	\$	Llhppt26	\$
Llhppt27	2476448.853180	1374791.087810	1	\$	Llhppt27	\$
Llhppt28	2475064.550420	1373679.835590	1	\$	Llhppt28	\$
Llhppt29	2474258.098800	1371978.032180	1	\$	Llhppt29	\$
Llhppt30	2477675.675640	1370175.898580	1	\$	Llhppt30	\$
Llhppt31	2476151.672590	1368982.096190	1	\$	Llhppt31	\$
Llhppt32	2474856.270000	1369077.346380	1	\$	Llhppt32	\$
Llhppt33	2472158.784600	1366994.542220	1	\$	Llhppt33	\$
Llhppt34	2473835.187960	1368194.694620	1	\$	Llhppt34	\$
Llhppt35	2476039.912370	1367089.792410	1	\$	Llhppt35	\$
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Llhppt40	2480247.430780	1362470.793170	1	\$	Llhppt40	\$
Llhppt41	2480647.481580	1358175.644580	1	\$	Llhppt41	\$
Llhppt42	2476364.450930	1355607.117360	1	\$	Llhppt42	\$
Llhppt43	2479274.608840	1355780.419790	1	\$	Llhppt43	\$
Llhppt44	2482255.939800	1355964.570160	1	\$	Llhppt44	\$
Llhppt45	2485407.133600	1354226.254180	1	\$	Llhppt45	\$
Llhppt46	2477443.159340	1352665.209390	1	\$	Llhppt46	\$
Llhppt47	2480882.749550	1352241.875210	1	\$	Llhppt47	\$
Llhppt48	2484216.506220	1351792.082640	1	\$	Llhppt48	\$
Llhppt49	2485508.998390	1351076.383300	1	\$	Llhppt49	\$
Llhppt50	2495288.189400	1345025.991710	1	\$	Llhppt50	\$
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Llhppt52	2487710.846240	1348144.101950	1	\$	Llhppt52	\$
Llhppt53	2484073.050970	1348328.506320	1	\$	Llhppt53	\$
Llhppt54	2480401.727620	1349736.685130	1	\$	Llhppt54	\$
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Llhppt56	2474085.039790	1347305.900270	1	\$	Llhppt56	\$
Llhppt57	2474180.816540	1370099.003240	1	\$	Llhppt57	\$
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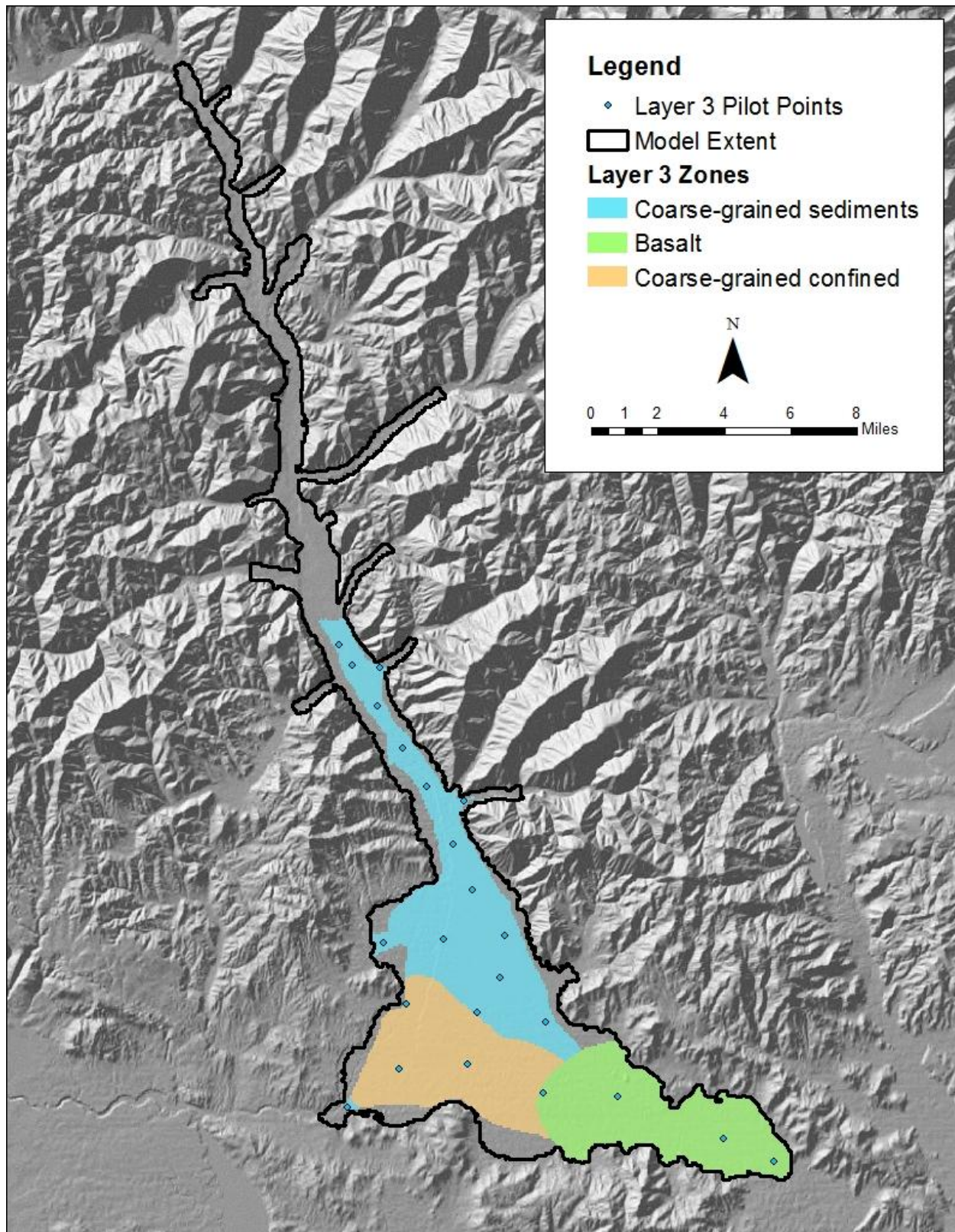
Attachment B



ptf \$

L2hkppt24	2473064.296410	1373178.184580	1	\$	L2hkppt24	\$
L2hkppt29	2474258.098800	1371978.032180	1	\$	L2hkppt29	\$
L2hkppt31	2476151.672590	1368982.096190	1	\$	L2hkppt31	\$
L2hkppt32	2474856.270000	1369077.346380	1	\$	L2hkppt32	\$
L2hkppt35	2476039.912370	1367089.792410	1	\$	L2hkppt35	\$
L2hkppt36	2477252.764790	1365083.188390	1	\$	L2hkppt36	\$
L2hkppt37	2478461.807210	1363181.994590	1	\$	L2hkppt37	\$
L2hkppt38	2479744.509780	1360387.989000	1	\$	L2hkppt38	\$
L2hkppt40	2480247.430780	1362470.793170	1	\$	L2hkppt40	\$
L2hkppt41	2480647.481580	1358175.644580	1	\$	L2hkppt41	\$
L2hkppt42	2476364.450930	1355607.117360	1	\$	L2hkppt42	\$
L2hkppt43	2479274.608840	1355780.419790	1	\$	L2hkppt43	\$
L2hkppt44	2482255.939800	1355964.570160	1	\$	L2hkppt44	\$
L2hkppt46	2477443.159340	1352665.209390	3	\$	L2hkppt46	\$
L2hkppt47	2480882.749550	1352241.875210	1	\$	L2hkppt47	\$
L2hkppt48	2484216.506220	1351792.082640	1	\$	L2hkppt48	\$
L2hkppt49	2485508.998390	1351076.383300	1	\$	L2hkppt49	\$
L2hkppt50	2495288.189400	1345025.991710	2	\$	L2hkppt50	\$
L2hkppt51	2492823.876470	1346149.181960	2	\$	L2hkppt51	\$
L2hkppt52	2487710.846240	1348144.101950	2	\$	L2hkppt52	\$
L2hkppt53	2484073.050970	1348328.506320	2	\$	L2hkppt53	\$
L2hkppt54	2480401.727620	1349736.685130	3	\$	L2hkppt54	\$
L2hkppt55	2477099.213020	1349501.988660	3	\$	L2hkppt55	\$
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L2hkppt57	2474180.816540	1370099.003240	1	\$	L2hkppt57	\$
L2hkppt58	2481986.040480	1353959.387630	1	\$	L2hkppt58	\$

Attachment C



ptf \$

L3hkppt31	2476151.672590	1368982.096190	1	\$	L3hkppt31	\$
L3hkppt32	2474856.270000	1369077.346380	1	\$	L3hkppt32	\$
L3hkppt35	2476039.912370	1367089.792410	1	\$	L3hkppt35	\$
L3hkppt36	2477252.764790	1365083.188390	1	\$	L3hkppt36	\$
L3hkppt37	2478461.807210	1363181.994590	1	\$	L3hkppt37	\$
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L3hkppt40	2480247.430780	1362470.793170	1	\$	L3hkppt40	\$
L3hkppt41	2480647.481580	1358175.644580	1	\$	L3hkppt41	\$
L3hkppt42	2476364.450930	1355607.117360	1	\$	L3hkppt42	\$
L3hkppt43	2479274.608840	1355780.419790	1	\$	L3hkppt43	\$
L3hkppt44	2482255.939800	1355964.570160	1	\$	L3hkppt44	\$
L3hkppt46	2477443.159340	1352665.209390	4	\$	L3hkppt46	\$
L3hkppt47	2480882.749550	1352241.875210	1	\$	L3hkppt47	\$
L3hkppt48	2484216.506220	1351792.082640	1	\$	L3hkppt48	\$
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L3hkppt52	2487710.846240	1348144.101950	2	\$	L3hkppt52	\$
L3hkppt53	2484073.050970	1348328.506320	2	\$	L3hkppt53	\$
L3hkppt54	2480401.727620	1349736.685130	4	\$	L3hkppt54	\$
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L3hkppt56	2474600.000000	1347639.000000	1	\$	L3hkppt56	\$
L3hkppt57	2474180.816540	1370099.003240	1	\$	L3hkppt57	\$
L3hkppt58	2481986.040480	1353959.387630	1	\$	L3hkppt58	\$