

Hamre, John G.

From: Hamre, John G.
Sent: Monday, August 19, 2013 7:58 AM
To: Hamre, John G.
Subject: FW: Permit Compliance Review, Contract #PU-668-12
Attachments: MPC 345 kV TL Permit Progress Report No 2_FINAL.PDF

From: Bart Schultz [<mailto:bschultz@houstoneng.com>]
Sent: Friday, August 16, 2013 3:26 PM
To: Lein, Jerry R.
Cc: Emmy Baskerville; Brian Fischer
Subject: Permit Compliance Review, Contract #PU-668-12

Jerry,

Attached are the field notes and discussion for the permit compliance review field work that was completed during the week of June 24th, 2013. The attached field notes include representative photos of the as-built conditions of the structures. As indicated in the Status Report #1, a geodatabase was established to collect field data. The link to the field data collected during the June field visit is as follows.

<http://ndpsc.houstoneng.net/>
Username: inspectuser
Password: poles2013

As a follow-up to a previous conversation you had with Brian Fischer; Houston Engineering GIS/WEB Project Manager, with regards to utilization of GIS technology for data collection/analysis and reporting, we would be happy to set up a demo for you and your staff. Please let Brian or me know if you would like to schedule demo.

Also, please call me with any questions.

Thanks,
Bart

Bart Schultz

Civil Engineer / Office Manager

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269 PU-09-670 Filed: 8/16/2013 Pages: 15
E-mail - Permit Compliance Review

Minnkota Power Cooperative, Inc. 250 mile 345 kV line from Center to Grand Forks, North Dakota (PSC Case No. PU-09-670)

Permit Compliance Review

NDPUC Contract No.: PU-668-12

Reporting Period: March 20th, 2013 – August 16th, 2013Prepared By: Houston Engineering, Inc. / Emmy Baskerville, Environmental Scientist and Bart Schultz, Project Manager

General:

Houston Engineering, Inc. (HEI) and MBN Engineering (MBN) were contractually hired by the North Dakota Public Services Commission (NDPSC) to complete the construction inspection activities, as part of the Minnkota Power Cooperative Center to Grand Forks 345 kV transmission line construction project (PU-09-670). The following is a summary of the work completed to date and the anticipated timeframe for the completion of the permit compliance review. One environmental compliance site visit has been completed, and one additional site visit is planned after construction of the Center to Grand Forks 345 kV transmission line is complete. This field inspection report is for the initial site visit, which occurred during June, from the 24th through 28th, 2013.

Summary of Activities / Items Completed to Date:

One site visit has been completed since the previous Status Report. The focus of this initial site visit was environmental compliance inspection on the eastern half of the transmission line. There were 527 poles inspected including poles 1334-822, and 804-791 (**Figure 1**). A total of 790 remain for environmental compliance inspections, and 1334 remain for engineering/construction compliance inspections. It is anticipated that these inspection visits will occur in the Spring of 2014.

The first environmental compliance visit targeted poles that were constructed in or within the vicinity of the exclusion, avoidance and selection criteria, as outlined within the permit. During the compliance site visit, we identified the following resources that were within and around the newly constructed poles: historical resources, homes/family farms and ranches, rivers/streams/drainage ways, wetlands and United States Fish and Wildlife easement wetlands, and plant life (tree clearing areas and agriculture). In addition, Extraordinary Events, as described within the construction weekly reports, were also targeted to identify and observe notable incidents within the construction corridor. The following summarizes the observations:

Historical Resources

GIS data received from the ND State Historical Preservation Office was utilized to identify the poles which may impact areas of known historic or archaeological significance. Poles that were placed in or within 500 feet of the areas identified as potentially significant sites were identified and spatially located with a handheld GPS on site to verify the pole location. These located pole points were then compared to the permitted pole location shapefile to verify they were placed as specified in the

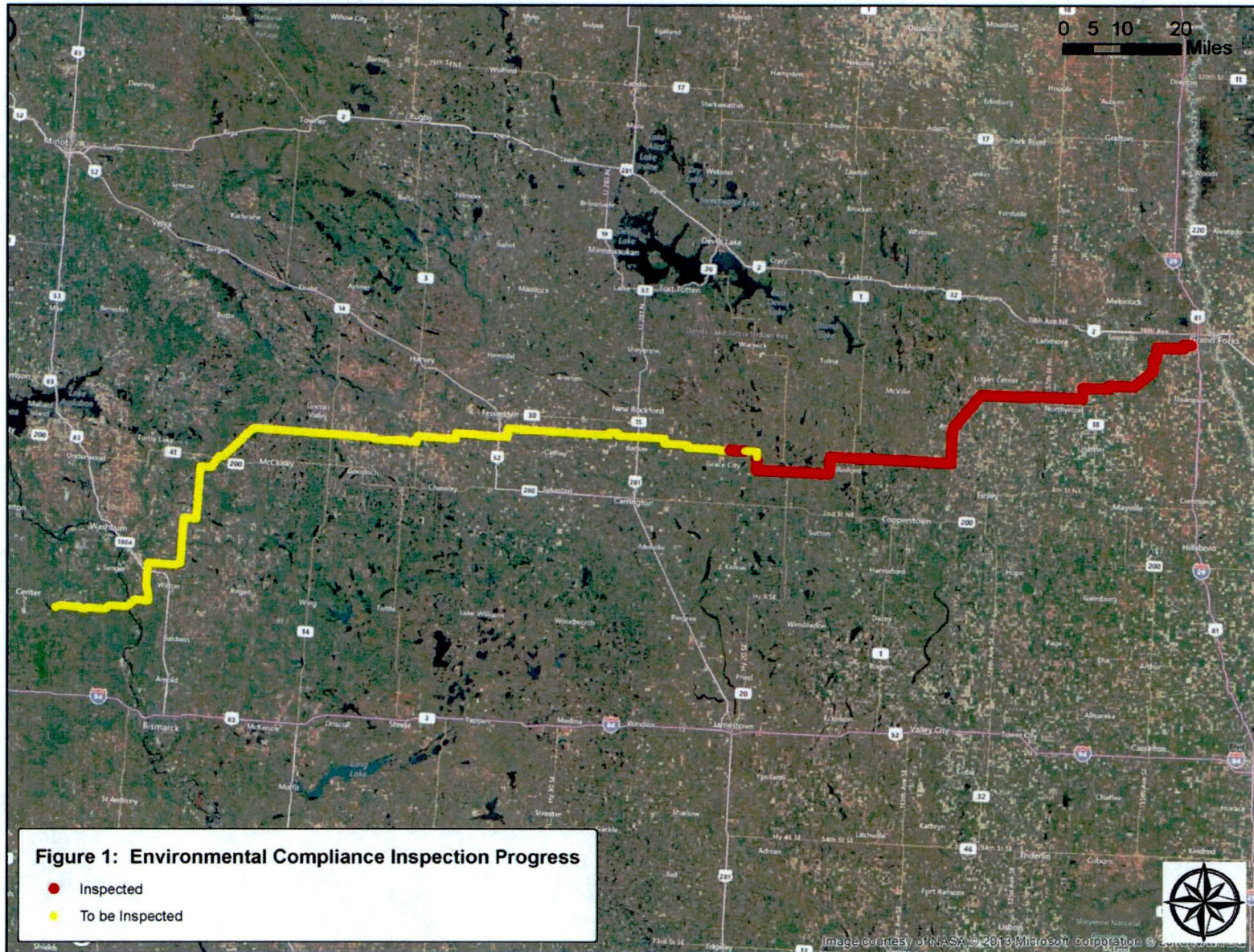


Figure 1: Environmental Inspection Progress (as of August 16th, 2013)

Permit. Seven poles were identified to be located within potentially known historic or archaeological sites, and each of these poles were constructed in the location outlined in the permit.

Houses/Family Farms and Ranches

GIS home location point data received from Minnkota was utilized to identify poles which may be placed within the 500 foot buffer of a residence, school or place of business (identified as an Avoidance Area within the permit). Using GIS, we identified all poles that were placed in or within 550 feet (to allow for a margin of error) of residences, schools or places of business. In the field, these poles were geo-located utilizing a handheld GPS unit to verify the constructed location. These located pole points were then compared to the permitted pole location shapefile to verify they were placed as specified in the permit. Thirteen poles were identified to be located within potentially known historic or archaeological sites, and each of these poles was constructed in the location outlined in the permit.

Rivers/Streams/Drainage ways

GIS location data was received from Minnkota and utilized to identify poles which may be constructed within a river, stream or drainage way, as outlined within the Selection Criteria of the permit. No poles were observed to be constructed directly within rivers/streams or drainage ways. Poles 1317, 1318 and 1244 are within the floodplains of the English Coulee. Poles 1295, 1272, 1174, 1130, 1093, 1092, 1007 and 1001 were constructed within the floodplains of intermittent streams. Pole 1159, 1153 and 1152 were constructed within the floodplains of the Little Goose River. Pole 1091 was constructed within the floodplain of Goose Creek. Pole 1045 was constructed within the floodplain of the Pickerel Lake Creek. Poles 993-991 were constructed within the floodplain of the Sheyenne River. Installations of the Stormwater Pollution Prevention Plan items were observed, including the placement of silt fences around water resources (See **Photo 1**). In-between Pole 996 and 997, erosion was present and siltation was observed in the intermittent stream (See **Photo 2**).

Wetlands and Easement Wetlands

Wetland delineation data was used to identify poles that were constructed within wetlands. US Fish and Wildlife Service easement parcel data was used to identify potential wetland impacts within easement parcels. A total of 160 poles were inspected to determine wetland impact compliance. Twelve poles were placed within wetlands, including 1272, 1264, 1261, 1204, 1087, 1086, 1077, 1058, 966, 965, 920, 880, 866, 863. Temporary impacts from construction rutting or bridge material was observed on poles 920, 1065, 1077, 1079, 1080, 1272 (see **Photo 3 and Photo 4** for example) and will need to be returned to pre-construction condition, as outlined within the Permit SWPPP implementation was observed on all construction close to and within wetland areas, including the installation of silt fencing. (See **Photo 1** for example).

Plant Life

Permanent impacts to plant life, which included tree clearing operations, were observed within several pole areas, including Poles 1313, 1312, 1311, 1310, 1309, 1308, 1214, 1155, 1117, and 968 (See **Photo 5** for example).

Agricultural Production

The majority of the observed poles were located within agricultural areas (See **Photo 6**). Cultivation and planting avoidance was observed in areas where poles were actively under construction. Agricultural areas were tilled and planted where construction of the poles had been completed.

Extraordinary Events

Six extraordinary events have been identified within the weekly construction progress reports. Inspection of these poles did not identify anything that would be out of permit compliance.

Table 1: Summary of resources observed, number of poles identified and pole compliance with the Permit.

Resource	# of Poles Checked	# of Poles Incompliant
Historical Sites	7	0
Vicinity to Residences, Schools, or Places of Business	13	0
Rivers/Streams/Drainage ways	19	1 (erosion / sedimentation)
Wetlands, woodlands, wooded areas	160	6 (temporary impacts from construction materials and rutting)
Plant Life	10	0
Agriculture lands	324	0
Extraordinary Events	11	0

Local Permit Compliance:

- Sovereign Land Permit No. S-1758: Permit to construct transmission line across the Sheyenne River in Griggs County.

Poles were inspected crossing the Sheyenne River. Three poles were observed (991-993, **Photo 7**), and are within compliance of the Sovereign Land Permit No. S-1758 and the PSC Permit.
- Conditional Use Permit Griggs County
Pole construction within Griggs County complies with the PSC Permit, Findings of Fact, and Conclusions of Law and Order, therefore is compliant with the Conditional use Permit.
- Conditional Use Permit Foster County
No conditions were identified within the Conditional use Permit for Foster County. Pole construction is in compliance of the Conditional Use Permit.
- Conditional Use Permit Nelson County
No conditions were identified within the Conditional use Permit for Nelson County. Pole construction is in compliance of the Conditional Use Permit.
- Special Use Permit Grand Forks County

Conditions identified within the Special Use Permit include receiving final approval from the PSC, and the roads and lands damaged during construction of the line shall be repaired. Equipment rutting, grading impacts and bridging material was observed within an intermittent stream by Pole 1273.

- Sharon Township (Steele County) Conditional Use Permit and Variance
Conditions identified within the Conditional Use Permit and Variance include: within Section 18, no pole should be 115 feet from the center of the road, and within Section 6, no pole placed more than 101 feet from the center of the road. Pole construction is compliant with the Conditional Use Permit.
- Loretta Township (Grand Forks County) Conditional Use Permit
Conditions identified within the Special Use Permit indicate to restore the area to pre-construction condition. Pole construction is compliant with this stipulation, no construction impacts were observed.
- Addie Township (Griggs County) Conditional Use Permit and Variance
No conditions were identified within the Zoning Variance or Conditional Use Permit.
- Eddy County Conditional Use Permit
No conditions are identified within the Conditional Use Permit.

Future Activities for the next reporting period:

HEI will perform the second permit compliance trip following completion of construction of the MPC 345 kV transmission line. Based on recent project update information from MPC, the projected in-service date of the line is February 28th, 2014. As such, HEI will likely schedule the compliance trip for Spring of 2014. In addition, the engineering compliance inspections will be completed by MBN following completion of construction. A final Construction Inspection Report will be provided to the Commission once construction is finished and the compliance visits have been completed. The Construction Inspection Report will include the data obtained during the compliance inspections, identification of any issues that were noted and resolution of such, and a conclusion whether the transmission is in compliance with the ND PSC Route Permit Number 144.

Photos



Photo 1: Example observed silt fencing around wetland resources (Pole 953)

Photo 2: Erosion and sedimentation within intermittent stream (Pole 996)





Photo 3: Example construction rutting (Pole 1272)

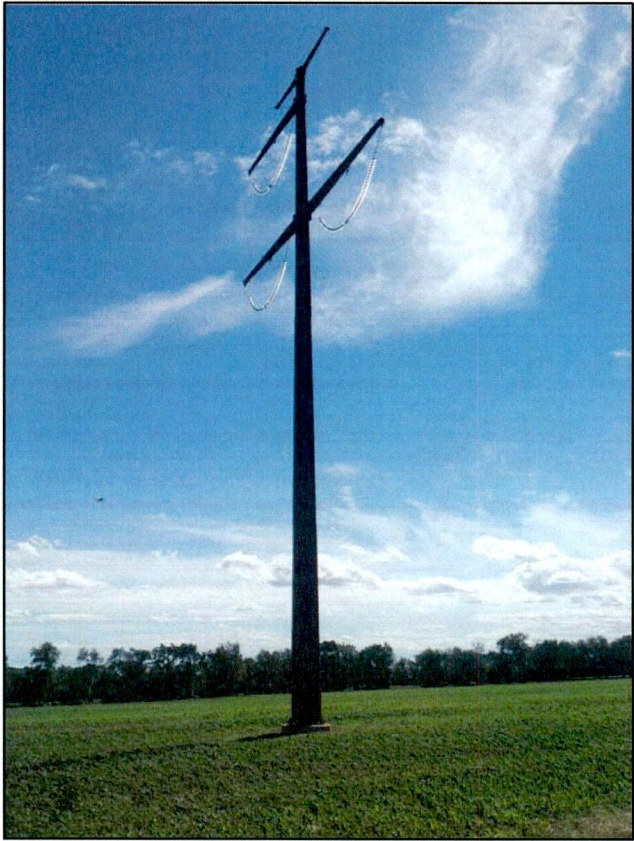


Photo 4: Example construction debris (Pole 1272)



Photo 5: Example tree clearing activities (Pole 1214)

Photo 6: Example agricultural land construction (Pole 955)





*Photo 7: Sheyenne River Pole Span.
(Poles 991-993)*

Field Data

A	B	F	G	M	O	Q	R	S	T	U
1	2	3	4	5	6	7	8	9	10	11
NOI#	NOI Name	Historical / Archeological Resources	Residence, school, business	Rivers, streams, drainage areas	Wetlands, woodlands, wooded areas	Plant Life	Extrordinary Event	Photo Only	NOTES	Checked
1002	1001								Pole likely not within floodplain	Checked
1003	1002									Checked
1004	1003									Checked
1005	1004									Checked
1006	1005									Checked
1007	1006									Checked
1008	1007								No wetland impacts, likely within floodplain, photo of stream	Checked
1009	1008									Checked
1010	1009									Checked
1011	1010									Checked
1012	1011									Checked
1013	1012									Checked
1014	1013									Checked
1015	1014									Checked
1016	1015								First pole in photo	Checked
1017	1016								Second pole in photo	Checked
1018	1017								Third pole in photo	Checked
1019	1018								Fourth pole in photo	Checked
1020	1019								Fifth pole in photo	Checked
1021	1020									Checked
1022	1021									Checked
1023	1022	Compliant							Spd to verify vicinity to home	Checked
1024	1023									Checked
1025	1024								Left pole in photo	Checked
1026	1025								Middle pole in photo	Checked
1027	1026								Right pole in photo	Checked
1028	1027	Compliant							No wetland impacts	Checked
1029	1028									Checked
1030	1029									Checked
1031	1030									Checked
1032	1031	Compliant							No wetland impacts	Checked
1033	1032	Compliant							No wetland impacts, pole constructed on cultivated lands	Checked
1034	1033	Compliant							No wetland impacts, pole constructed on cultivated lands	Checked
1035	1034								Photo on 1036	Checked
1036	1035									Checked
1037	1036									Checked
1038	1037	Compliant							No assessment wetland impacts	Checked
1039	1038	Compliant							No wetland impacts	Checked
1040	1039									Checked
1041	1040								Add photo on pole 1039	Checked
1042	1041								Add photo on pole 1039	Checked
1043	1042									Checked
1044	1043									Checked
1045	1044	Compliant							No wetland impacts	Checked
1046	1045								Adjacent to stream, possibly within floodplain	Checked
1047	1046								Extraordinary event noted, unable to determine what that is. Everything appears to be compliant. No wetland impacts	Checked
1048	1047									Checked
1049	1048									Checked
1050	1049	Compliant							No wetland impacts	Checked
1051	1050	Compliant							No wetland impacts, pole constructed close to but not within wetland.	Checked
1052	1051	Compliant							No wetland impacts	Checked
1053	1052	Compliant							No wetland impacts, pole constructed on high spot	Checked
1054	1053	Compliant							No wetland impacts	Checked
1055	1054	Compliant							No wetland impacts	Checked
1056	1055	Compliant							No wetland impacts	Checked
1057	1056	Compliant							No wetland impacts	Checked
1058	1057	Compliant							No wetland impacts	Checked
1059	1058	Compliant							Wetland impacts, pole likely within floodplain	Checked
1060	1059	Compliant							No wetland impacts	Checked
1061	1060	Compliant							No wetland impacts	Checked
1062	1061	Compliant							Spd to verify vicinity to home. No wetland impacts	Checked
1063	1062									Checked
1064	1063	Compliant							No wetland impacts	Checked
1065	1064	Compliant							No wetland impacts	Checked
1066	1065	Noncompliant							No wetland impacts from pole, rutting in easement wetlands	Checked
1067	1066	Compliant							No wetland impacts	Checked
1068	1067	Compliant							No wetland impacts	Checked
1069	1068									Checked
1070	1069								Extraordinary event noted, unable to determine what that is. Rock pile/wetland? Everything appears compliant.	Checked
1071	1070	Compliant							No wetland impacts	Checked
1072	1071	Compliant							No wetland impacts	Checked
1073	1072	Compliant							No wetland impacts	Checked
1074	1073	Compliant							No wetland impacts	Checked
1075	1074	Compliant							No wetland impacts, pole placed between potholes in upland	Checked
1076	1075									Checked
1077	1076									Checked
1078	1077	Compliant							Temp wetland impacts from construction bridges, no permanent impacts	Checked
1079	1078	Compliant								Checked
1080	1079	Compliant							No wetland impacts from pole, rutting from construction equipment observed	Checked
1081	1080	Compliant							No wetland impacts from pole, rutting from construction equipment observed	Checked
1082	1081	Compliant							No wetland impacts from pole, rutting from construction equipment observed (picture)	Checked
1083	1082	Compliant							No wetland impact	Checked
1084	1083									Checked
1085	1084									Checked
1086	1085									Checked
1087	1086	Compliant							Wetland impacts	Checked
1088	1087	Compliant							Wetland impacts	Checked
1089	1088									Checked
1090	1089									Checked
1091	1090									Checked
1092	1091	Compliant							No wetland impacts	Checked
1093	1092	Compliant							No wetland impacts, pole placed on hill. Photo on pole 1093	Checked
1094	1093	Compliant							No wetland impacts, pole potentially in floodplain of intermittent stream	Checked
1095	1094									Checked
1096	1095									Checked
1097	1096	Compliant							No wetland impacts	Checked
1098	1097	Compliant							No wetland impacts	Checked
1099	1098	Compliant							No wetland impacts	Checked
1100	1099									Checked
1101	1100	Compliant							Spd to verify vicinity to home	Checked
1102	1101									Checked
1103	1102	Compliant							No wetland impacts	Checked
1104	1103									Checked
1105	1104									Checked
1106	1105	Compliant							No wetland impacts	Checked
1107	1106									Checked
1108	1107									Checked
1109	1108									Checked
1110	1109									Checked
1111	1110									Checked
1112	1111									Checked
1113	1112									Checked
1114	1113									Checked
1115	1114									Checked
1116	1115									Checked
1117	1116	Compliant							No wetland impacts	Checked
1118	1117	Compliant							Tree clearing ops observed	Checked
1119	1118									Checked
1120	1119	Compliant							No wetland impacts	Checked
1121	1120									Checked
1122	1121									Checked
1123	1122	Compliant							No wetland impacts	Checked
1124	1123									Checked
1125	1124									Checked
1126	1125	Compliant							No wetland impacts	Checked
1127	1126	Compliant							No wetland impacts	Checked
1128	1127	Compliant							No wetland impacts	Checked
1129	1128									Checked
1130	1129									Checked
1131	1130	Compliant							Pole placed high on hill, likely out within floodplain of stream	Checked
1132	1131	Compliant							Intersected stream in foreground of photo. Pole possibly in floodplain	Checked
1133	1132									Checked
1134	1133	Compliant							No wetland impacts	Checked
1135	1134									Checked
1136	1135									Checked
1137	1136									Checked
1138	1137									Checked
1139	1138									Checked
1140	1139									Checked
1141	1140									Checked
1142	1141	Compliant							No wetland impacts	Checked
1143	1142	Compliant							No wetland impacts, extraordinary event noted, unknown	Checked
1144	1143	Compliant							No wetland impacts	Checked
1145	1144									Checked
1146	1145									Checked
1147	1146									Checked
1148	1147								Extraordinary event noted, unknown...rock pile?	Checked
1149	1148									Checked
1150	1149	Compliant							No wetland impact	Checked
1151	1150									Checked
1152	1151									Checked
1153	1152	Compliant							Stream observed, pole potentially within floodplain	Checked
1154	1153	Compliant							Stream observed, pole potentially within floodplain	Checked
1155	1154									Checked
1156	1155	Compliant							Tree clearing ops observed	Checked
1157	1156									Checked
1158	1157									Checked
1159	1158									Checked
1160	1159	Compliant							No wetland impacts, stream observed, pole potentially within floodplain	Checked
1161	1160									Checked
1162	1161									Checked
1163	1162									Checked
1164	1163									Checked
1165	1164									Checked
1166	1165									Checked
1167	1166									Checked
1168	1167									Checked
1169	1168									Checked
1170	1169									Checked
1171	1170									Checked
1172	1171	Compliant							Spd for home vicinity compliance	Checked
1173	1172									Checked
1174	1173									Checked
1175	1174	Compliant							Within floodplain	Checked
1176	1175									Checked
1177	1176									Checked
1178	1177									Checked
1179	1178									Checked
1180	1179									Checked
1181	1180									Checked
1182	1181									Checked
1183	1182									Checked
1184	1183									Checked
1185	1184									Checked
1186	1185									

