Shaw Alaska, Inc.

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Shaw® Shaw Alaska, Inc.

DATE: August 28, 2006

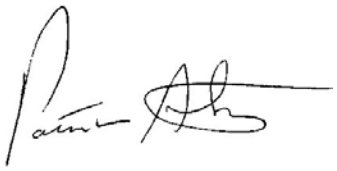
TO: Forest Heights, LLC

FROM: Shaw Alaska, Inc.
Pat Athey, Senior Scientist

PROJECT: Wetland Delineation, Legacy Pointe, Anchorage, Alaska

RE: Wetland Delineation Report

Shaw Alaska, Inc.



Pat Athey, Senior Scientist
patrick.athey@shawgrp.com

Introduction

This report summarizes a wetland investigation delineation performed for Forest Heights, LLC at the Legacy Pointe Tracts A & B parcel located in Anchorage, Alaska during June and July 2006.

Methods

Wetland determination and mapping was performed at the site during June and July of 2006. Determination of wetlands and the boundaries of wetlands with non-wetlands were made according to the *Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Alaska Region* (February 2006) and the *1987 Corps of Engineers Wetland Delineation Manual*.

The primary tasks for the work included: 1) a review of existing maps and ecological data, 2) collection of field data at observation points to determine the presence or absence of wetlands, and 3) field delineation of the boundaries separating wetlands and uplands. Boundary points were staked and flagged in the field, and coordinates recorded with a hand-held GPS unit; a Professional Land Surveyor would map the locations at a later date.

Parcel information was obtained from the Municipality of Anchorage's parcel information web site (http://munimaps.muni.org/website/anchorage/application/map.htm) and is provided below:

Parcel ID: 02018119-000
Legal Description: T11N R3W SEC 10, NW¼ NE¼ S½ NE ¼
Area: 5,227,200 ft^2 (120 acres)

A location map for the parcel was extracted from the MOA site and is provided in Figure 1. Existing data that were reviewed as part of this work included:

1. Preliminary Wetland Delineation Report (CH2MHill, 2005)
2. Soil Survey of Anchorage, Alaska published by the Natural Resources Conservation Service (2001).
3. Anchorage Wetland Atlas Online
4. National Wetlands Inventory (NWI) Maps Online

The preliminary wetland delineation report of 2005 did not identify all potential jurisdictional wetlands on the parcel. An inspection of the parcel in May 2006 was performed to review the preliminary delineation results. Unmapped wetlands were observed in areas adjacent to the two creeks that extend across the parcel, indicating the need to perform additional wetland delineation at the parcel to identify that all potential jurisdictional wetlands.

The Soil Survey mapping was obtained online from NRCS Web Soil Survey site (http://websoilsurvey.nrcs.usda.gov/app/). An extracted image for the parcel area is provided in Figure 2.

The NWI mapping was reviewed and not indicate the presence of wetlands in the inspection area. The NWI maps are made from satellite photography and are useful for identifying relatively large and obvious wetland areas for planning purposes; the wetland boundaries depicted on these maps are not considered accurate and must be delineated on the ground.

The methodology used for delineating wetlands is known as the triple parameter approach. The premise of this approach is that the three essential characteristics of wetlands (hydrophytic

vegetation, hydric soils, and wetland hydrology) must all be present to have a positive wetland determination.

These methods were used to achieve accurate characterization of the wetland community at specific observation points and to correlate the findings with existing data (aerial photography, soils mapping, and other maps where these were available). The determination points were numbered sequentially (e.g., DP-1) for tracking on wetland determination data forms published in the Alaska Regional Supplement. A map of the approximate location of determination points is provided in Figure 4. Completed data forms are provided in Attachment 2.

Hydric soils were identified by digging test pits and comparing the soil to the listed indicators of hydric soils. Correlations of observations with the soil type descriptions in the Anchorage Soil Survey were used to identify mapped soil types. Water must be present in order for wetlands to exist; however, it does not need to be present throughout the entire year. Wetland hydrology is considered to be present when there is permanent or periodic inundation or soil saturation for a significant period of time (usually more than a week) during the growing season. Indicators of wetland hydrology include areas of ponding or soil saturation, evidence of previous water inundation such as dry algae on bare soil, watermarks on soils or leaves, and drainage patterns. Where positive indicators are observed, it is assumed that wetland hydrology occurs for a significant period of the growing season. Where indicators of wetland hydrology were not visible above ground surface (*e.g.* drainage patterns, watermarks, etc.) test pits were dug to confirm the presence of indicators below ground surface (*i.e.* saturation in the top twelve inches).

Findings

Potential jurisdictional wetlands were found within the subject parcel as determined by a detailed evaluation of vegetation, soils, and hydrology at established determination points and supported with observations and soil probing throughout the area. The boundaries of the identified wetlands with adjacent uplands were flagged in the field and were subsequently surveyed by a Professional Land Surveyor. The resulting wetland polygons are presented in the survey plat provided in Attachment 1.

The preliminary wetlands mapping performed in 2005 by CH2MHill identified twelve (12) separate wetland polygons (areas) on the parcel, indicated as "A", "B", "C", "D", "E", "F1", "F2", "G1", "G2", "H", "I", and "J".

The results of the mapping conducted by Shaw Alaska in 2006 identified six (6) additional wetland areas designated as "N", "O", "P", "Q", "R", and "S". Three (3) of these areas encompassed smaller wetland areas mapped in 2006, including Wetland "B" contained within Wetland "R", Wetland "H" contained within Wetland "Q", and Wetland "I" contained within Wetland "O". This resulted in a total of 15 wetland areas identified on the parcel.

Wetlands "O", "P", and "Q" are contiguous wetland boundaries but were mapped as separate areas due to minor topographic and drainage characteristics.

The characteristics of Wetlands "A" through "J" are described in the 2005 report by CH2MHill. The characteristics of Wetlands "N" through "S" are described in the following discussion.

Wetland "N" is located in the central part of the parcel. It is positioned in a depressional area at the base of a slope that extends north to south through the central portion of the parcel. The characteristics of this wetland area are documented data recorded for determination points DP-36 and DP-37. A small seep with surface water and associated wet meadow are located at the north side of this wetland (DP-36). The area of surface water observed during late June was limited to less than 100 square feet and about 4-inches in depth. The soils in this wetland consist of Histic Epipedon type hydric soils with a histic layer 10 inches in depth overlying dark colored silt-loams. The vegetation in this wetland is a mixture of emergent persistent grasses and sedges surrounding the seep area and shrub-scrub wetland dominated by alders. This wetland area may be characterized as a mixed Palustrine Shrub-Scrub and Persistent Emergent type according to U.S. Fish and Wildlife Service classification system. Wetland "N" is bounded on the west side by a slight rise that appears to prevent storm runoff and snowmelt from draining down slope, resulting in water accumulation. The north and south boundary of this wetland are indistinct on the surface, as the topography is contiguous with adjacent uplands; soil and hydrology features that lose wetland characteristics establish the boundary.

Groundwater is expected to flow subsurface (i.e., *interflow*) from this Wetland "N" to the north into Wetland "O". This interflow toward the north establishes a connection with Wetland "O", which is an *adjacent wetland* to a small creek that flows west into Potter Marsh, which discharges into Navigable Waters in Cook Inlet.

Wetland "O" is part of a wetland complex located adjacent to a small creek that extends from the east to the west across the north-central portion of the property. The characteristics of this wetland area are documented by several determination points, including DP-30, -35, -38, -39, -40, -41, -42, -43, -45, -46, -48, and –49. The eastern portion of Wetland "O" is located at the base of a slope and is relatively flat terrain. This area is a slope discharge area where interflow water emerges from

several seeps and the topographic rise to the west side prevents surface runoff and snowmelt from flowing downhill, except where the small creek extends to the west. Soils in this eastern portion of Wetland "O" are mostly hydric lack muck extending to depths of 20 inches or more below surface. Surface water was absent except in the creek channel during late June, but soils were saturated to the surface and a shallow water table was observed within 12 inches of surface in test pits. Vegetation consists of a mosaic of alder-devils club thickets, and open areas of herb-grass meadows that include bluejoint reed grass, horsetail, and other FAC and FACW herbs. Stands of paper birch and white spruce occur in this area also. The occurrence of *Angelica genuflexa* (FACW; kneeling angelica) was found to be a good indicator of saturation and black muck soils in this wetland area, as well throughout the parcel. This wetland area may be characterized as a mixed Palustrine Shrub-Scrub and Persistent Emergent type according to U.S. Fish and Wildlife Service classification system. The north side of this wetland area may be associated with the second creek, located to the north. Due to the relatively flat topography across this eastern portion of Wetland "O" it is not obvious if surface water or interflow moves into the north creek. Because of this, a somewhat artificial boundary was established between Wetland "O" and Wetland "Q" that is associated with the north creek. Wetland "O" and "Q" are contiguous.

The western portion of Wetland "O" is adjacent to the small creek that flows east to west across the parcel. The characteristics of this part of the wetland are similar to eastern portion, with the exception that an obvious surface water feature is located within it and the wetland boundary is associated with a topographic rise that becomes better defined downhill toward the west side of the parcel. A branch of this wetland extends to the south just down slope (west) of the eastern portion; this is associated with a small seep that does not flow into the creek but disappears into the ground a short distance from its source. The thickness of the histic soil layer is variable in the eastern portion, in some areas becoming a hydric histic epipedon soil. The wetland is bounded on the west side by the gas line ROW where vehicle travel and other disturbances have altered the soils and hydrology, resulting in non-wetland conditions. Immediately above this gas line ROW, the creeks and the adjacent wetlands split to the north and south, resulting in a triangular area of upland.

Wetland "P" is a small finger of Wetland "O" that extends to the west near its north end and is contiguous with Wetland "O". The characteristics of Wetland "P" are similar to Wetland "O" and consist of an area of alder thickets and a bluejoint reed grass meadow and saturated histic epipedon and histosol soils. This wetland area may be characterized as a mixed Palustrine Shrub-Scrub and Persistent Emergent type according to U.S. Fish and Wildlife Service classification system. This wetland area is contiguous with Wetland "O" and Wetland "Q", which is an adjacent wetland to the north creek, a tributary of Little Rabbit Creek that discharges to Navigable Waters in Cook Inlet.

Wetland "Q" is an adjacent wetland to the creek on the north side of the parcel and extends from the eastern parcel boundary along Bettijean Street west to the small road that extends from the north along the parcel boundary at 172nd St. to the south. A culvert conveys the creek flow under the road. The characteristics of Wetland "Q" are identical to the western portion of Wetland "O" and consist of a mosaic of alder thickets and herb-grass meadows dominated by FAC and FACW species. Soils are histic epipedons and histosols that are saturated near the surface, with a high water table present in areas near the creek flow. The wetland boundary is indicated by a well-defined topographic break in most areas. The adjacent uplands are similar to the upland areas throughout the parcel, generally dominated by paper birch and white spruce forest with bluejoint

reed grass dominating the groundcover. This wetland is adjacent to the north creek, a tributary of Little Rabbit Creek that discharges to Navigable Waters in Cook Inlet.

Wetland "R" is an adjacent wetland to the north creek that extends to the west and north past the culvert crossing under the road through the north side of the parcel. The characteristics of this wetland are similar to Wetland "Q", dominated by alder and devil's club thickets with saturated histic soils. The creek transforms into a small pond at the north side of the parcel at 172nd St. The pond was estimated to be more than 24 inches in depth during late June and is surrounded by a band of persistent emergent species including sedges. A perched culvert that appears to allow flow through only during high water events forms the pond. A small arm of wetland "R" extends to the south immediately down slope of the road crossing and consists of a bluejoint reed grass meadow and alder thicket. The boundary of Wetland "R" is formed by very steep topographic rise on either side of the creek and wetland. This wetland area may be characterized as a mixed Palustrine Shrub-Scrub and Persistent Emergent type according to U.S. Fish and Wildlife Service classification system. This wetland is adjacent to the north creek, a tributary of Little Rabbit Creek that discharges to Navigable Waters in Cook Inlet.

Wetland "S" is located in the west-central portion of the parcel and consists of a mosaic of alder thickets and bluejoint reed grass – herb meadows. Several small seeps are located along the east boundary of this wetland at the base of a steep slope within dense stands of alder. Soils are saturated to the surface in most areas with a high water table present near the seeps. Soils consist of histic epipedons and histosols. This wetland area may be characterized as a mixed Palustrine Shrub-Scrub and Persistent Emergent type according to U.S. Fish and Wildlife Service classification system. This wetland area is directly upslope from the headwaters of a small stream and Wetland "A" mapped in 2005 by CH2MHill. Groundwater flow (interflow) from this wetland is expected to flow down slope into this stream/wetland complex, which flows into Potter Marsh and Cook Inlet, forming the connection with Navigable Waters.

Data sheets for representative wetland determination points are provided in Attachment 2. Photographs of the wetland areas and determination points are provided in Attachment 3 (on CD only). Selected pictures of wetlands and other relevant features are provided below (a full set of pictures from the investigation are provided as Attached 3 on CD).

Typical non-hydric Deception-Estelle-Kichatna complex type soils encountered.

Typical upland terrain and vegetation encountered.

Seep at DP-33 (Wetland “A”)

Seep at DP-36 (Wetland “N”)

Seep at DP-35 (Wetland “O”)

Creek and adjacent Wetland “O”

Seep at DP-34 in Wetland “O”

Seep at DP-41 in Wetland “O”

Histic soil at DP-42 in Wetland “O”

Typical shrub-scrub vegetation found in Wetland “O”

Vegetation at DP-51 in Wetland “P”

Typical vegetation along creek in Wetland “Q”

Creek channel in Wetland “R”

Seep at DP-53 in Wetland “S”

Typical vegetation found in Wetland “S”

Angelica genuflexa (FACW) – a common indicator of saturated histic soils

Wildlife use in Wetland “N”

Bear sign in Wetland “N”

Figure 1. Location of Investigation

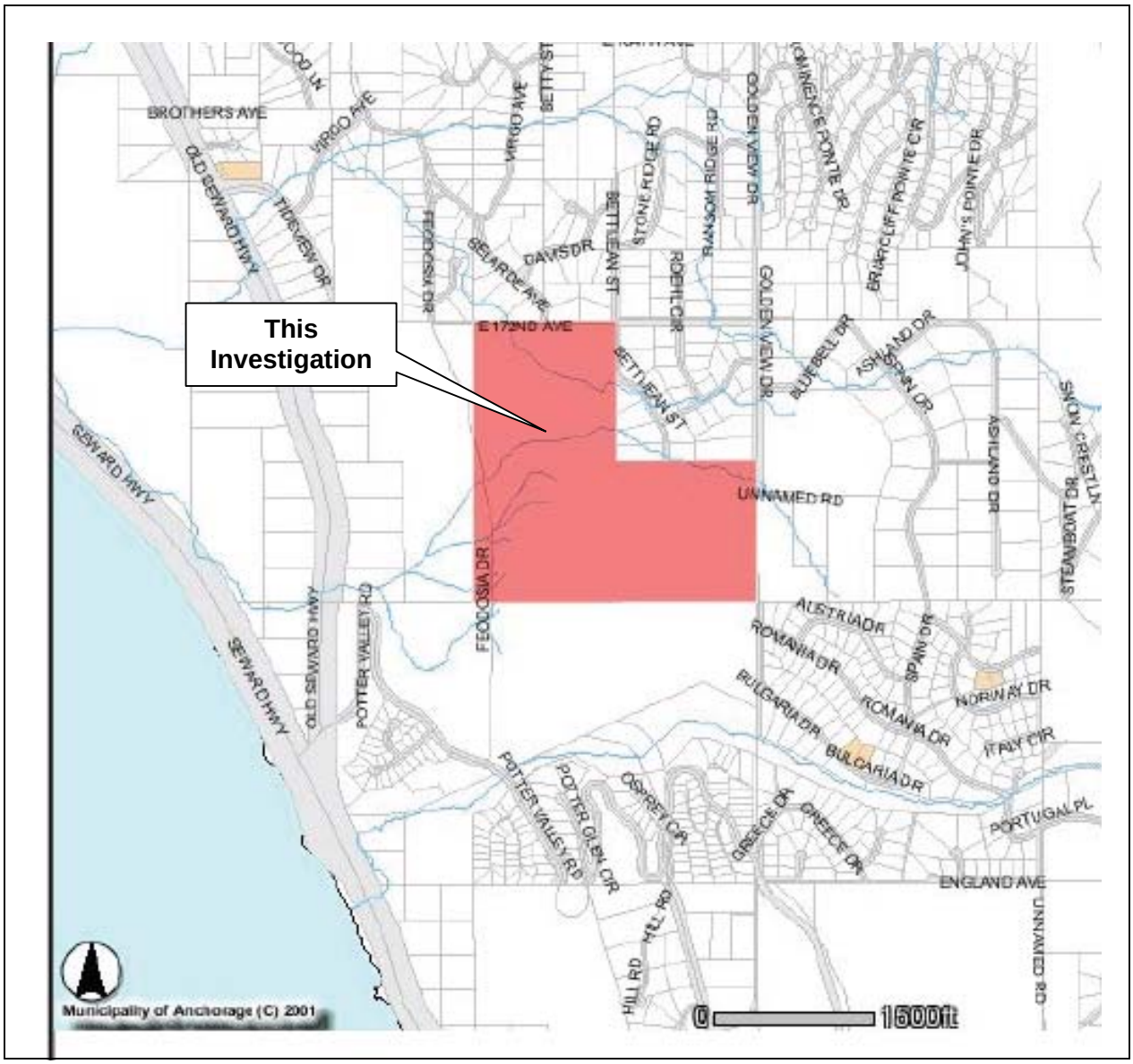


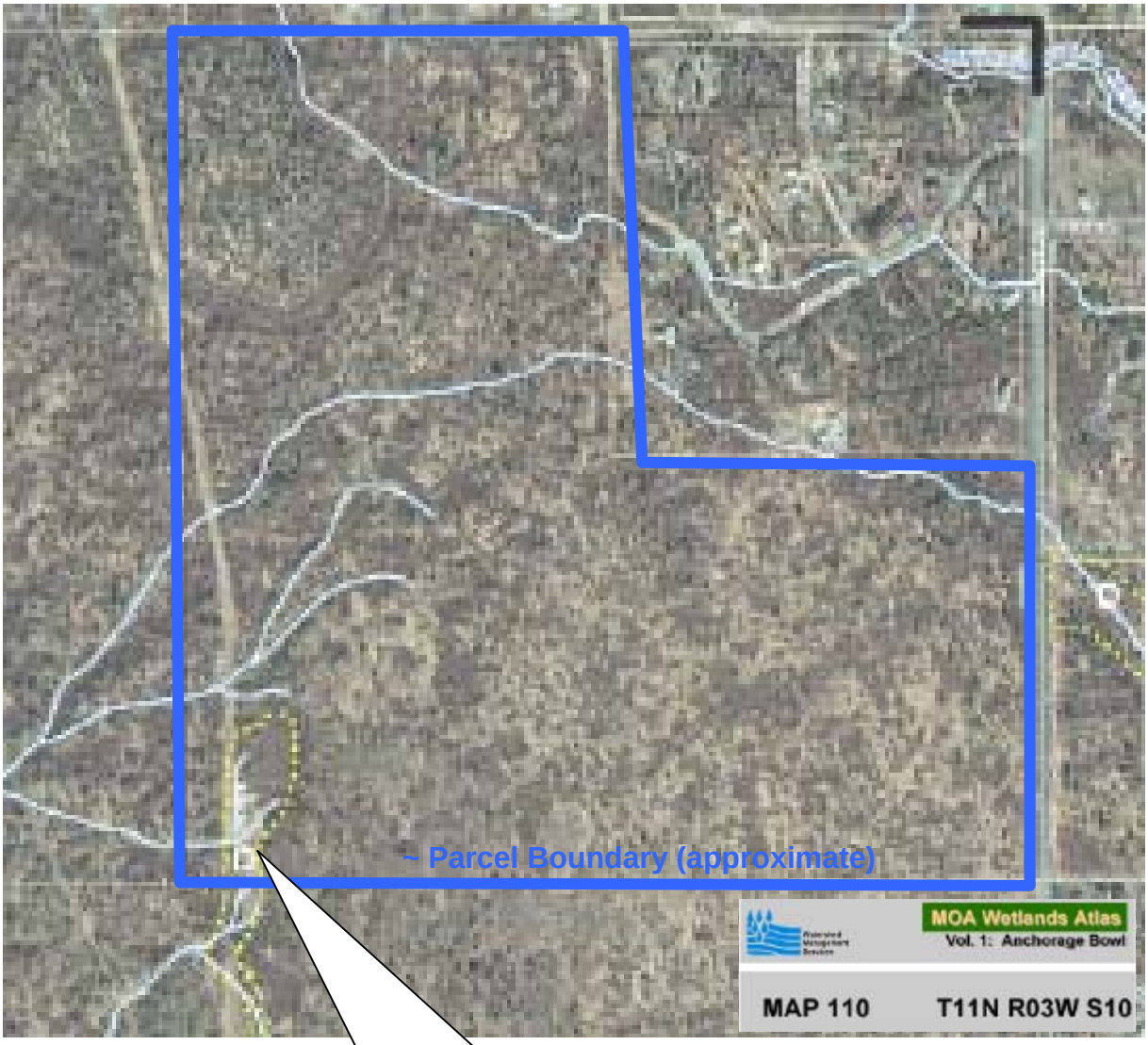
Figure 2. NRCS Soils Mapping

Map Key:

Map Unit	Name
411	Deception-Estelle-Kichatna complex, 12 to 20 percent slopes
412	Deception-Estelle-Kichatna complex, 20 to 45 percent slopes
414	Deception-Estelle-Kichatna complex, undulating and hilly
415	Deception-Estelle-Kichatna complex, undulating and steep
455	Talkeetna-Chugach-Deneka complex, 12 to 20 percent slopes
456	Talkeetna-Chugach-Deneka complex, 20 to 45 percent slopes

* None of these soils types are designated as hydric, but may include Histic Cryaquept inclusions that are hydric.

Figure 3. Anchorage Wetland Atlas Mapping



"D" – Undesignated Wetland Area by MOA Wetlands Atlas

Attachment 1

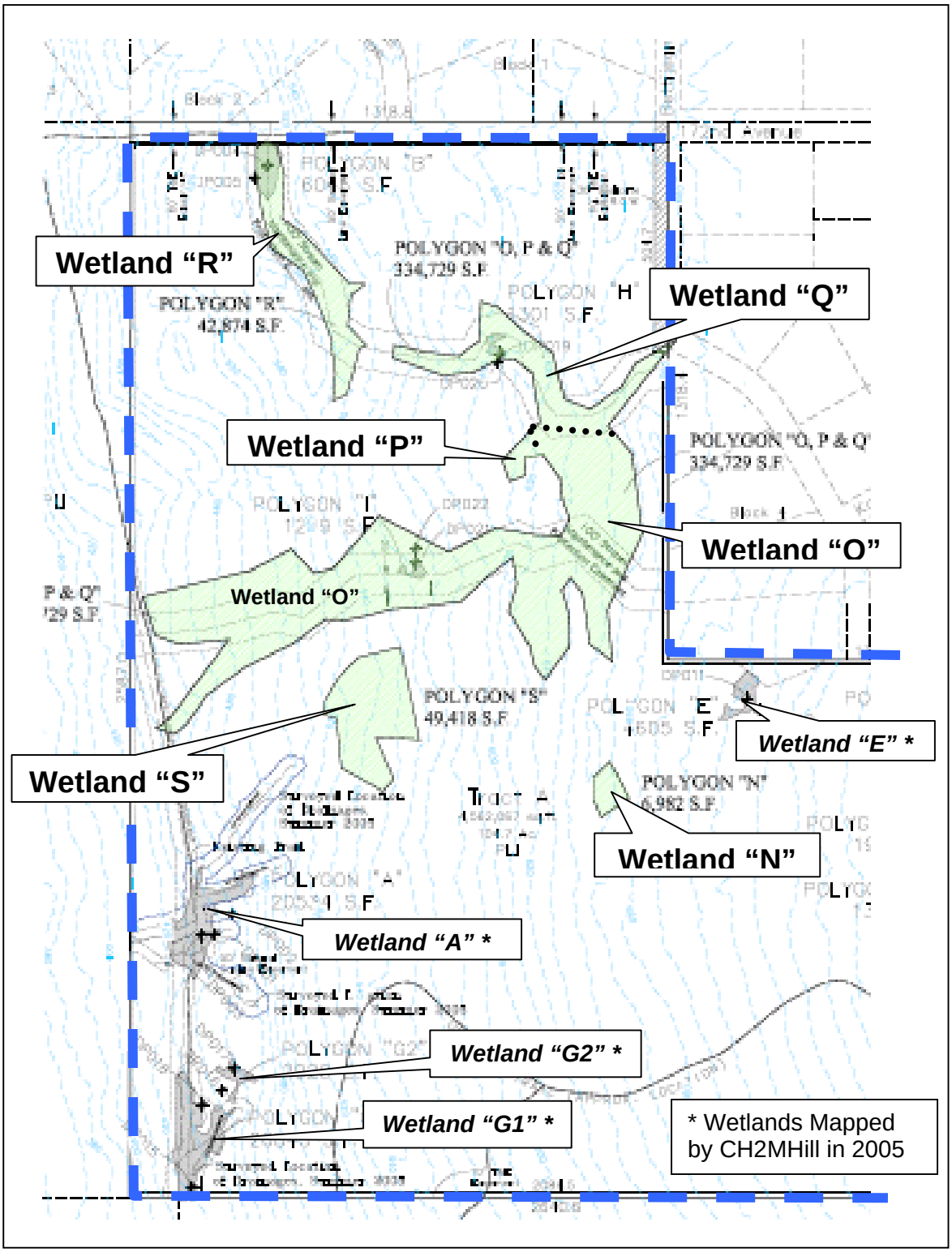
Wetland Delineation

Legacy Pointe Tracts A & B
Anchorage, Alaska

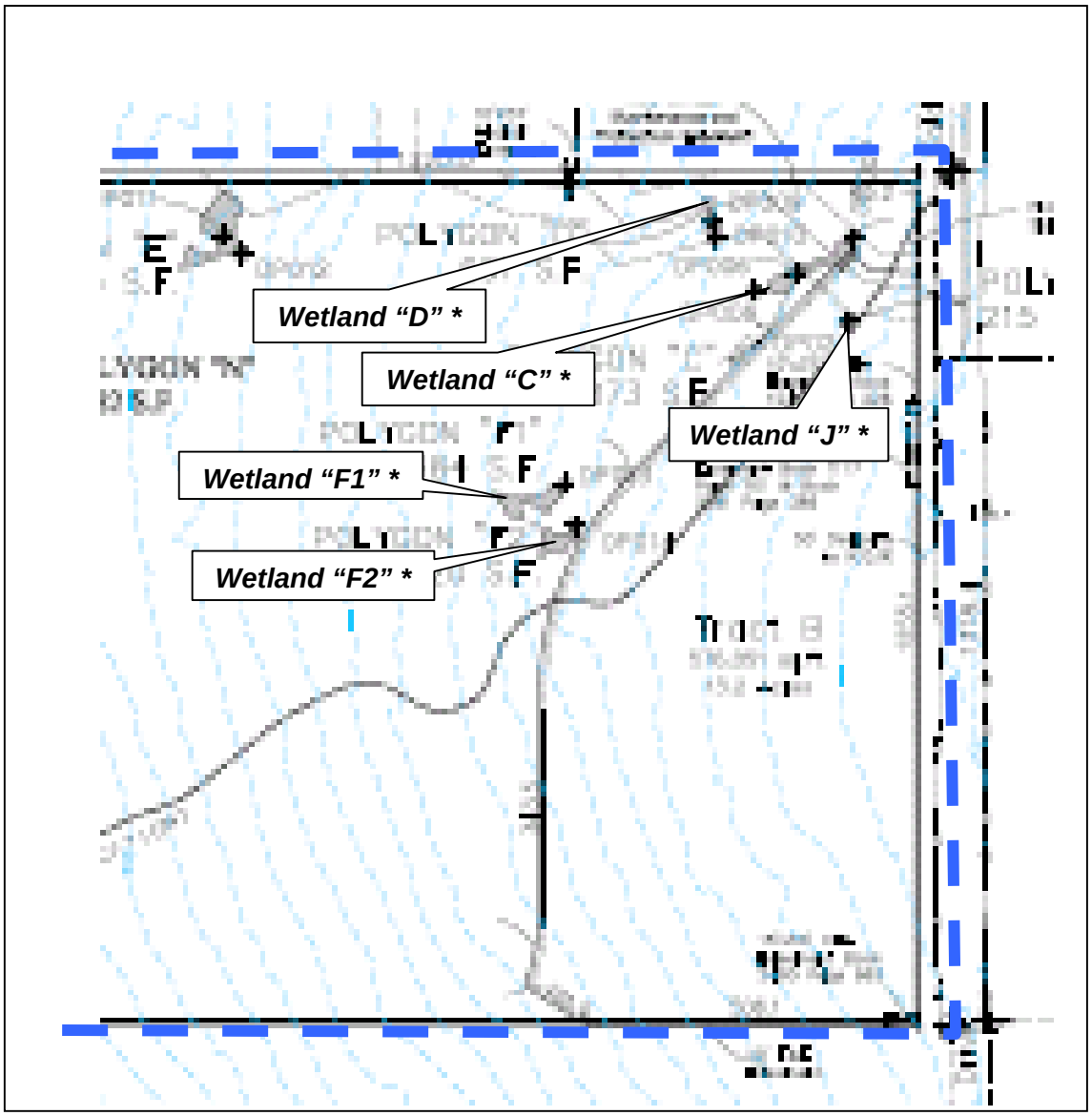
Forest Heights, LLC

August 2006

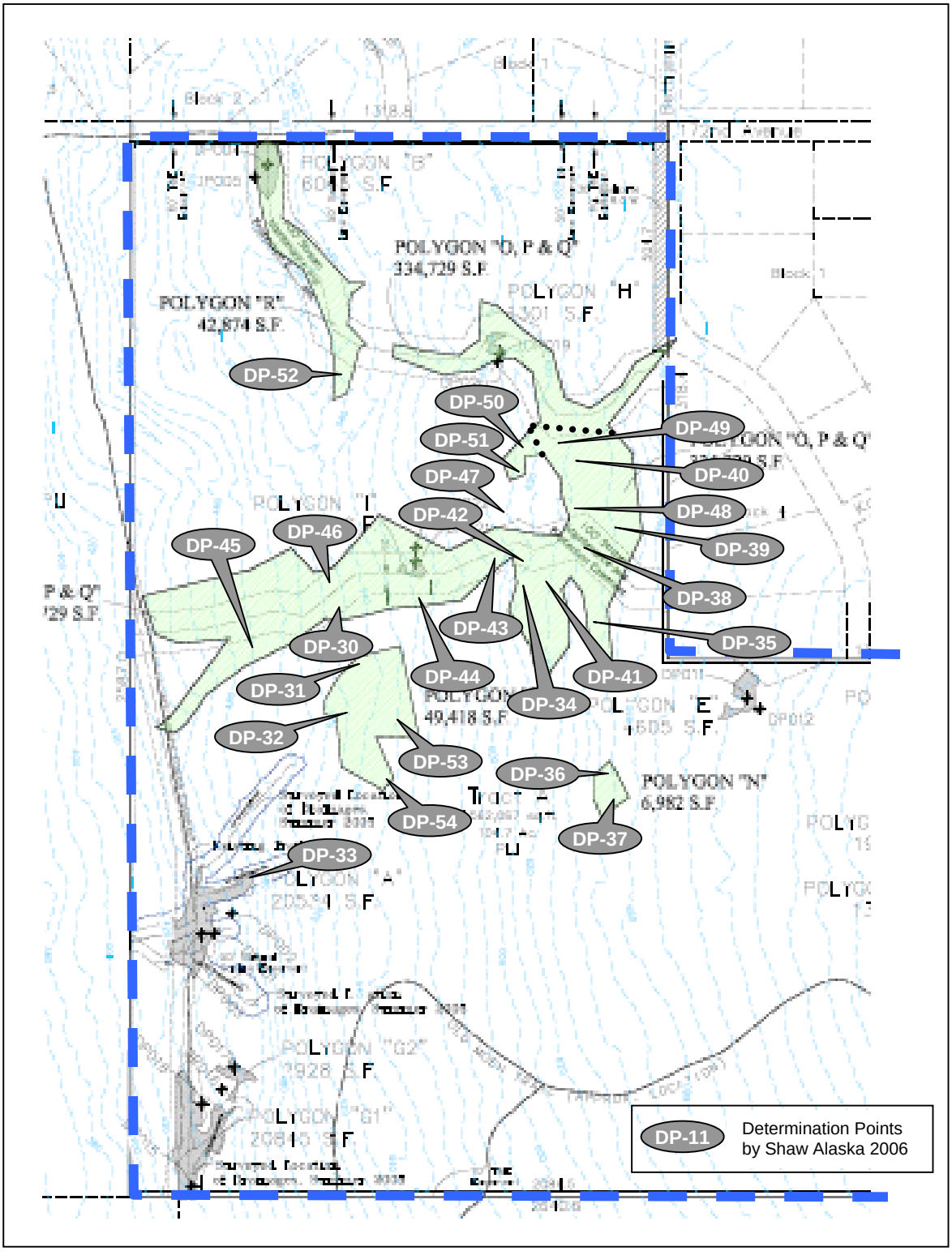
West Part


Wetland "R"
Wetland "Q"
Wetland "P"
Wetland "O"
Wetland "S"
Wetland "E" *
Wetland "N"
Wetland "A" *
Wetland "G2" *
Wetland "G1" *
POLYGON "R"
42,874 S.F.
POLYGON "O, P & Q"
334,729 S.F.
POLYGON "S"
49,418 S.F.
POLYGON "N"
6,982 S.F.
* Wetlands Mapped by CH2MHill in 2005

East Part



Determination Points – West Part



Attachment 2

Data Sheets for Wetland Determinations

Legacy Pointe Tracts A & B
Anchorage, Alaska

Forest Heights, LLC

August 2006

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Legacy Pointe Tracts A & B Borough/City: Anchorage, Alaska Sampling Date: 24-Jun-06

Applicant/Owner: Forest Heights, LLC Sampling Point: DP-30 (#527)

Investigator(s): Pat Athey Landform (hillside, terrace, hummocks, etc.): Hillside Slope

Local relief (concave, convex, none): Gentle slope to west Slope (%): 1%

Subregion: Southcentral Lat: N61.06264 Long: W149.78405 Datum: NAD 27 Alaska

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:
Wetland associated with a small creek.

VEGETATION

Species (Use scientific names. List all species in plot.)	Absolute % Cover	Indicator Status
1. Alnus sinuata - FAC	40	FAC
2. Oplopanax horridus - FACU	20	FACU
3. Angelica genuflexa - FACW	20	FACW
4. Calamagrostis canadensis - FAC	90	FAC
5. Athyrium filix-femina - FAC	20	FAC
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19.		
20.		

Total Cover: 190

Plot size 30 ft radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____

Prevalence Index:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	150	x 3 =	450
FACU species	20	x 4 =	80
UPL species	0	x 5 =	0
Column Totals:	190 (A)		570 (B)

Prevalence Index = B/A = 3.0

Other Indicators of Hydrophytic Vegetation:
(Record supporting data in Remarks or on a separate sheet.)

___ Wetland Cryptogams (record species and cover at left)

___ Morphological Adaptations

___ Problematic Hydrophytic Vegetation (Explain)

Hydrophytic Vegetation Present? Yes X No _____

Remarks:
Herb-grass meadow

SOIL

Sampling Point: DP-30 (#527)

Profile Description: (Describe to the depth needed to document the indicator.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	black						muck/peat	
10-20	black						silt loam & muck	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol or Histel (A1)
- X Histic Epipedon (A2)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- ___ Alaska Color Change (TA4)[4]
- ___ Alaska Alpine Swales (TA5)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present.

[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ____

Remarks:

Histic cryaquept inclusion within Deception-Estelle-Kichatna complex mapped by NRCS (2001).

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Mat or Crust of Algae or Marl (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes X No ____ Depth (inches): 2

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Site located in measow area adjacent to small creek.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Legacy Pointe Tracts A & B Borough/City: Anchorage, Alaska Sampling Date: 24-Jun-06

Applicant/Owner: Forest Heights, LLC Sampling Point: DP-31 (#528)

Investigator(s): Pat Athey Landform (hillside, terrace, hummocks, etc.): Hillside Slope

Local relief (concave, convex, none): Gentle slope to west Slope (%): 1%

Subregion: Southcentral Lat: N61.06231 Long: W149.78351 Datum: NAD 27 Alaska

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:
Wetland associated wth small seeps in area.

VEGETATION

Species (Use scientific names. List all species in plot.)	Absolute % Cover	Indicator Status
1. Alnus sinuata - FAC	20	FAC
2. Alnus tenuifolia - FAC	80	FAC
3. Oplopanax horridus - FACU	50	FACU
4. Calamagrostis canadensis - FAC	50	FAC
5. Athyrium filix-femina - FAC	20	FAC
6. Angelica genuflexa - FACW	20	FACW
7.		
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14.		
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16.		
17.		
18.		
19.		
20.		
Total Cover:	240	

Plot size 30 ft radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____

Prevalence Index:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	170	x 3 =	510
FACU species	50	x 4 =	200
UPL species		x 5 =	0
Column Totals:	240 (A)		750 (B)

Prevalence Index = B/A = 3.1

Other Indicators of Hydrophytic Vegetation:
(Record supporting data in Remarks or on a separate sheet.)

___ Wetland Cryptogams (record species and cover at left)

___ Morphological Adaptations

X Problematic Hydrophytic Vegetation (Explain)

Hydrophytic Vegetation Present? Yes X No _____

Remarks:
Alder thicket with herb-grass meadows.

SOIL

Sampling Point: DP-31 (#528)

Profile Description: (Describe to the depth needed to document the indicator.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	black						muck	
10-20	black		dark gray				silt loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol or Histel (A1)
- X Histic Epipedon (A2)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- ___ Alaska Color Change (TA4)[4]
- ___ Alaska Alpine Swales (TA5)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present.

[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ____

Remarks:

Histic cryaquept inclusion within Deception-Estelle-Kichatna complex mapped by NRCS (2001).

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Mat or Crust of Algae or Marl (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes X No ____ Depth (inches): 2

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Seeps located in area.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Legacy Pointe Tracts A & B Borough/City: Anchorage, Alaska Sampling Date: 24-Jun-06

Applicant/Owner: Forest Heights, LLC Sampling Point: DP-32 (#531)

Investigator(s): Pat Athey Landform (hillside, terrace, hummocks, etc.): Hillside Slope

Local relief (concave, convex, none): Sloping to west Slope (%): 5%

Subregion: Southcentral Lat: N61.06198 Long: W149.78371 Datum: NAD 27 Alaska

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:
Wetland associated with nearby seep.

VEGETATION

Species (Use scientific names. List all species in plot.)	Absolute % Cover	Indicator Status
1. Alnus sinuata - FAC	50	FAC
2. Angelica genuflexa - FACW	20	FACW
3. Oplopanax horridus - FACU	20	FACU
4. Equisetum palustre - FACW	40	FACW
5. Carex laeviculmis - FACW	20	FACW
6.		
7.		
8.		
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14.		
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16.		
17.		
18.		
19.		
20.		

Total Cover: 150

Plot size 30 ft radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____

Prevalence Index:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	80	x 2 =	160
FAC species	50	x 3 =	150
FACU species	20	x 4 =	80
UPL species		x 5 =	0
Column Totals:	150 (A)		390 (B)

Prevalence Index = B/A = 2.6

Other Indicators of Hydrophytic Vegetation:
(Record supporting data in Remarks or on a separate sheet.)

___ Wetland Cryptogams (record species and cover at left)

___ Morphological Adaptations

___ Problematic Hydrophytic Vegetation (Explain)

Hydrophytic Vegetation Present? Yes X No _____

Remarks:
Small marsh associated with seep.

SOIL

Sampling Point: DP-32 (#531)

Profile Description: (Describe to the depth needed to document the indicator.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-24	black						muck	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators:

- [X] Histosol or Histel (A1)
- [ ] Histic Epipedon (A2)
- [ ] Hydrogen Sulfide (A4)
- [ ] Thick Dark Surface (A12)
- [ ] Alaska Gleyed (A13)
- [ ] Alaska Redox (A14)
- [ ] Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- [ ] Alaska Color Change (TA4)[4]
- [ ] Alaska Alpine Swales (TA5)
- [ ] Alaska Redox With 2.5Y Hue
- [ ] Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- [ ] Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present.

[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes [X] No [ ]

Remarks:
Histic cryaquept inclusion within Deception-Estelle-Kichatna complex mapped by NRCS (2001).

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- [X] Surface Water (A1)
- [X] High Water Table (A2)
- [X] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Mat or Crust of Algae or Marl (B4)
- [ ] Iron Deposits (B5)
- [ ] Surface Soil Cracks (B6)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Dry-Season Water Table (C2)
- [ ] Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- [ ] Water-stained Leaves (B9)
- [ ] Drainage Patterns (B10)
- [ ] Oxidized Rhizospheres on Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Salt Deposits (C5)
- [ ] Stunted or Stressed Plants (D1)
- [ ] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4)
- [ ] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes [X] No [ ] Depth (inches): 2

Water Table Present? Yes [X] No [ ] Depth (inches): 4

Saturation Present? (includes capillary fringe) Yes [X] No [ ] Depth (inches): 0

Wetland Hydrology Present? Yes [X] No [ ]

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Adjacent to small seep.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Legacy Pointe Tracts A & B Borough/City: Anchorage, Alaska Sampling Date: 24-Jun-06

Applicant/Owner: Forest Heights, LLC Sampling Point: DP-33 (#532)

Investigator(s): Pat Athey Landform (hillside, terrace, hummocks, etc.): Hillside Slope

Local relief (concave, convex, none): Sloping to west Slope (%): 5%

Subregion: Southcentral Lat: N61.06114 Long: W149.78392 Datum: NAD 27 Alaska

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:
Wetland associated with nearby seep.

VEGETATION

Species (Use scientific names. List all species in plot.)	Absolute % Cover	Indicator Status
1. Alnus sinuata - FAC	50	FAC
2. Heracleum lanatum - FACU	30	FACU
3. Carex laeviculmis - FACW	20	FACW
4. Calamagrostis canadensis - FAC	30	FAC
5. Angelica genuflexa - FACW	20	FACW
6.		
7.		
8.		
9.		
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12.		
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14.		
15.		
16.		
17.		
18.		
19.		
20.		

Total Cover: 150

Plot size 30 ft radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____

Prevalence Index:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	40	x 2 =	80
FAC species	80	x 3 =	240
FACU species	30	x 4 =	120
UPL species		x 5 =	0
Column Totals:	150 (A)		440 (B)

Prevalence Index = B/A = 2.9

Other Indicators of Hydrophytic Vegetation:
(Record supporting data in Remarks or on a separate sheet.)

___ Wetland Cryptogams (record species and cover at left)

___ Morphological Adaptations

___ Problematic Hydrophytic Vegetation (Explain)

Hydrophytic Vegetation Present? Yes X No _____

Remarks:
Small marsh associated with seep.

SOIL

Sampling Point: DP-33 (#532)

Profile Description: (Describe to the depth needed to document the indicator.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-24	black						muck	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators:

- [X] Histosol or Histel (A1)
- [ ] Histic Epipedon (A2)
- [ ] Hydrogen Sulfide (A4)
- [ ] Thick Dark Surface (A12)
- [ ] Alaska Gleyed (A13)
- [ ] Alaska Redox (A14)
- [ ] Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- [ ] Alaska Color Change (TA4)[4]
- [ ] Alaska Alpine Swales (TA5)
- [ ] Alaska Redox With 2.5Y Hue
- [ ] Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- [ ] Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present.

[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes [X] No [ ]

Remarks:
Histic cryaquept inclusion within Deception-Estelle-Kichatna complex mapped by NRCS (2001).

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- [X] Surface Water (A1)
- [X] High Water Table (A2)
- [X] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Mat or Crust of Algae or Marl (B4)
- [ ] Iron Deposits (B5)
- [ ] Surface Soil Cracks (B6)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Dry-Season Water Table (C2)
- [ ] Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- [ ] Water-stained Leaves (B9)
- [ ] Drainage Patterns (B10)
- [ ] Oxidized Rhizospheres on Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Salt Deposits (C5)
- [ ] Stunted or Stressed Plants (D1)
- [ ] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4)
- [ ] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes [X] No [ ] Depth (inches): 2

Water Table Present? Yes [X] No [ ] Depth (inches): 6

Saturation Present? (includes capillary fringe) Yes [X] No [ ] Depth (inches): 0

Wetland Hydrology Present? Yes [X] No [ ]

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Adjacent to small seep.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Legacy Pointe Tracts A & B Borough/City: Anchorage, Alaska Sampling Date: 24-Jun-06

Applicant/Owner: Forest Heights, LLC Sampling Point: DP-34 (#535)

Investigator(s): Pat Athey Landform (hillside, terrace, hummocks, etc.): Hillside Slope

Local relief (concave, convex, none): Gentle slope to west Slope (%): 1%

Subregion: Southcentral Lat: N61.06247 Long: W149.78131 Datum: NAD 27 Alaska

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:
Wetland associated with nearby seep.

VEGETATION

Species (Use scientific names. List all species in plot.)	Absolute % Cover	Indicator Status
1. Alnus sinuata - FAC	50	FAC
2. Oplopanax horridus - FACU	30	FACU
3. Calamagrostis canadensis - FAC	30	FAC
4. Equisetum palustre - FACW	30	FACW
5. Angelica genuflexa - FACW	20	FACW
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		
17.		
18.		
19.		
20.		

Total Cover: 160

Plot size 30 ft radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____

Prevalence Index:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	0
FACW species	50	x 2 =	100
FAC species	80	x 3 =	240
FACU species	30	x 4 =	120
UPL species		x 5 =	0
Column Totals:	160 (A)		460 (B)

Prevalence Index = B/A = 2.9

Other Indicators of Hydrophytic Vegetation:
(Record supporting data in Remarks or on a separate sheet.)

___ Wetland Cryptogams (record species and cover at left)

___ Morphological Adaptations

___ Problematic Hydrophytic Vegetation (Explain)

Hydrophytic Vegetation Present? Yes X No _____

Remarks:
Small marsh associated with seep.

SOIL

Sampling Point: DP-34 (#535)

Profile Description: (Describe to the depth needed to document the indicator.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-24	black						muck	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators:

- [X] Histosol or Histel (A1)
- [ ] Histic Epipedon (A2)
- [ ] Hydrogen Sulfide (A4)
- [ ] Thick Dark Surface (A12)
- [ ] Alaska Gleyed (A13)
- [ ] Alaska Redox (A14)
- [ ] Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- [ ] Alaska Color Change (TA4)[4]
- [ ] Alaska Alpine Swales (TA5)
- [ ] Alaska Redox With 2.5Y Hue
- [ ] Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- [ ] Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present.

[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes [X] No [ ]

Remarks:
Histic cryaquept inclusion within Deception-Estelle-Kichatna complex mapped by NRCS (2001).

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- [X] Surface Water (A1)
- [X] High Water Table (A2)
- [X] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Mat or Crust of Algae or Marl (B4)
- [ ] Iron Deposits (B5)
- [ ] Surface Soil Cracks (B6)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Dry-Season Water Table (C2)
- [ ] Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- [ ] Water-stained Leaves (B9)
- [ ] Drainage Patterns (B10)
- [ ] Oxidized Rhizospheres on Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Salt Deposits (C5)
- [ ] Stunted or Stressed Plants (D1)
- [ ] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4)
- [ ] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes [X] No [ ] Depth (inches): 1

Water Table Present? Yes [X] No [ ] Depth (inches): 4

Saturation Present? (includes capillary fringe) Yes [X] No [ ] Depth (inches): 0

Wetland Hydrology Present? Yes [X] No [ ]

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Adjacent to small seep.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Legacy Pointe Tracts A & B Borough/City: Anchorage, Alaska Sampling Date: 24-Jun-06

Applicant/Owner: Forest Heights, LLC Sampling Point: DP-35 (#536)

Investigator(s): Pat Athey Landform (hillside, terrace, hummocks, etc.): Hillside Slope

Local relief (concave, convex, none): Flat Slope (%): _____

Subregion: Southcentral Lat: N61.06244 Long: W149.78061 Datum: NAD 27 Alaska

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:
Wetland associated with seeps and creek.

VEGETATION

Species (Use scientific names. List all species in plot.)	Absolute % Cover	Indicator Status
1. Alnus sinuata - FAC	50	FAC
2. Oplopanax horridus - FACU	50	FACU
3. Calamagrostis canadensis - FAC	80	FAC
4. Equisetum palustre - FACW	50	FACW
5.		
6.		
7.		
8.		
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11.		
12.		
13.		
14.		
15.		
16.		
17.		
18.		
19.		
20.		

Total Cover: 230

Plot size 30 ft radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____

Prevalence Index:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = 0
FACW species 50	x 2 = 100
FAC species 180	x 3 = 540
FACU species _____	x 4 = 0
UPL species _____	x 5 = 0
Column Totals: 230 (A)	640 (B)

Prevalence Index = B/A = 2.8

Other Indicators of Hydrophytic Vegetation:
(Record supporting data in Remarks or on a separate sheet.)

___ Wetland Cryptogams (record species and cover at left)

___ Morphological Adaptations

___ Problematic Hydrophytic Vegetation (Explain)

Hydrophytic Vegetation Present? Yes X No _____

Remarks:
Small marsh associated with seep.

SOIL

Sampling Point: DP-35 (#536)

Profile Description: (Describe to the depth needed to document the indicator.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-20	black						muck	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators:

- [X] Histosol or Histel (A1)
- [ ] Histic Epipedon (A2)
- [ ] Hydrogen Sulfide (A4)
- [ ] Thick Dark Surface (A12)
- [ ] Alaska Gleyed (A13)
- [ ] Alaska Redox (A14)
- [ ] Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- [ ] Alaska Color Change (TA4)[4]
- [ ] Alaska Alpine Swales (TA5)
- [ ] Alaska Redox With 2.5Y Hue
- [ ] Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- [ ] Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present.

[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes [X] No [ ]

Remarks:
Histic cryaquept inclusion within Deception-Estelle-Kichatna complex mapped by NRCS (2001).

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- [ ] Surface Water (A1)
- [X] High Water Table (A2)
- [X] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Mat or Crust of Algae or Marl (B4)
- [ ] Iron Deposits (B5)
- [ ] Surface Soil Cracks (B6)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Dry-Season Water Table (C2)
- [ ] Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- [ ] Water-stained Leaves (B9)
- [ ] Drainage Patterns (B10)
- [ ] Oxidized Rhizospheres on Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Salt Deposits (C5)
- [ ] Stunted or Stressed Plants (D1)
- [ ] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4)
- [ ] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes [ ] No [X] Depth (inches): _____

Water Table Present? Yes [X] No [ ] Depth (inches): 10

Saturation Present? (includes capillary fringe) Yes [X] No [ ] Depth (inches): 5

Wetland Hydrology Present? Yes [X] No [ ]

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Seeps and small creek in area.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Legacy Pointe Tracts A & B Borough/City: Anchorage, Alaska Sampling Date: 24-Jun-06

Applicant/Owner: Forest Heights, LLC Sampling Point: DP-36 (#537)

Investigator(s): Pat Athey Landform (hillside, terrace, hummocks, etc.): Hillside Slope

Local relief (concave, convex, none): Flat Slope (%): _____

Subregion: Southcentral Lat: N61.06139 Long: W149.78044 Datum: NAD 27 Alaska

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:
Wetland associated with nearby seep.

VEGETATION

Species (Use scientific names. List all species in plot.)	Absolute % Cover	Indicator Status
1. Calamagrostis canadensis - FAC	75	FAC
2. Angelica genuflexa - FACW	20	FACW
3. Equisetum palustre - FACW	30	FACW
4. Carex laeviculmis - FACW	20	FACW
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		
17.		
18.		
19.		
20.		

Total Cover: 145

Plot size 30 ft radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____

Prevalence Index:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = 0
FACW species 70	x 2 = 140
FAC species 75	x 3 = 225
FACU species _____	x 4 = 0
UPL species _____	x 5 = 0
Column Totals: 145 (A)	365 (B)

Prevalence Index = B/A = 2.5

Other Indicators of Hydrophytic Vegetation:
(Record supporting data in Remarks or on a separate sheet.)

___ Wetland Cryptogams (record species and cover at left)

___ Morphological Adaptations

___ Problematic Hydrophytic Vegetation (Explain)

Hydrophytic Vegetation Present? Yes X No _____

Remarks:
Small marsh associated with seep.

SOIL

Sampling Point: DP-36 (#537)

Profile Description: (Describe to the depth needed to document the indicator.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-20	black						muck	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators:

- [X] Histosol or Histel (A1)
- [ ] Histic Epipedon (A2)
- [ ] Hydrogen Sulfide (A4)
- [ ] Thick Dark Surface (A12)
- [ ] Alaska Gleyed (A13)
- [ ] Alaska Redox (A14)
- [ ] Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- [ ] Alaska Color Change (TA4)[4]
- [ ] Alaska Alpine Swales (TA5)
- [ ] Alaska Redox With 2.5Y Hue
- [ ] Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- [ ] Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present.

[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes [X] No [ ]

Remarks:
Histic cryaquept inclusion within Deception-Estelle-Kichatna complex mapped by NRCS (2001).

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- [X] Surface Water (A1)
- [X] High Water Table (A2)
- [X] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Mat or Crust of Algae or Marl (B4)
- [ ] Iron Deposits (B5)
- [ ] Surface Soil Cracks (B6)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Dry-Season Water Table (C2)
- [ ] Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- [ ] Water-stained Leaves (B9)
- [ ] Drainage Patterns (B10)
- [ ] Oxidized Rhizospheres on Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Salt Deposits (C5)
- [ ] Stunted or Stressed Plants (D1)
- [ ] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4)
- [ ] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes [X] No [ ] Depth (inches): 6

Water Table Present? Yes [X] No [ ] Depth (inches): 2

Saturation Present? (includes capillary fringe) Yes [X] No [ ] Depth (inches): 0

Wetland Hydrology Present? Yes [X] No [ ]

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Adjacent to small seep.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Legacy Pointe Tracts A & B Borough/City: Anchorage, Alaska Sampling Date: 24-Jun-06

Applicant/Owner: Forest Heights, LLC Sampling Point: DP-37 (#538)

Investigator(s): Pat Athey Landform (hillside, terrace, hummocks, etc.): Hillside Slope

Local relief (concave, convex, none): Flat Slope (%): _____

Subregion: Southcentral Lat: N61.06115 Long: W149.78040 Datum: NAD 27 Alaska

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:
Wetland associated wth small seeps in area.

VEGETATION

Species (Use scientific names. List all species in plot.)	Absolute % Cover	Indicator Status
1. Alnus sinuata - FAC	100	FAC
2. Angelica genuflexa - FACW	50	FACW
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		
17.		
18.		
19.		
20.		

Total Cover: 150

Plot size 30 ft radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____

Prevalence Index:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	0
FACW species	50	x 2 =	100
FAC species	100	x 3 =	300
FACU species	_____	x 4 =	0
UPL species	_____	x 5 =	0
Column Totals:	150 (A)		400 (B)

Prevalence Index = B/A = 2.7

Other Indicators of Hydrophytic Vegetation:
(Record supporting data in Remarks or on a separate sheet.)

___ Wetland Cryptogams (record species and cover at left)

___ Morphological Adaptations

___ Problematic Hydrophytic Vegetation (Explain)

Hydrophytic Vegetation Present? Yes X No _____

Remarks:
Alder thicket with herb-grass meadows.

SOIL

Sampling Point: DP-37 (#538)

Profile Description: (Describe to the depth needed to document the indicator.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	black						muck	
10-20	black						silt	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
X Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present.

[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ____

Remarks:
Histic cryaquept inclusion within Deception-Estelle-Kichatna complex mapped by NRCS (2001).

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ Surface Water (A1)
___ High Water Table (A2)
X Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Mat or Crust of Algae or Marl (B4)
___ Iron Deposits (B5)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres on Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Salt Deposits (C5)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes X No ____ Depth (inches): 2

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Seeps located in area.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Legacy Pointe Tracts A & B Borough/City: Anchorage, Alaska Sampling Date: 24-Jun-06

Applicant/Owner: Forest Heights, LLC Sampling Point: DP-38 (#540)

Investigator(s): Pat Athey Landform (hillside, terrace, hummocks, etc.): Hillside Slope

Local relief (concave, convex, none): Sloping to west Slope (%): 5%

Subregion: Southcentral Lat: N61.06281 Long: W149.78088 Datum: NAD 27 Alaska

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:
Wetland associated with a small creek.

VEGETATION

Species (Use scientific names. List all species in plot.)	Absolute % Cover	Indicator Status
1. Calamagrostis canadensis - FAC	75	FAC
2. Angelica genuflexa - FACW	20	FACW
3. Equisetum palustre - FACW	30	FACW
4. Carex laeviculmis - FACW	20	FACW
5.		
6.		
7.		
8.		
9.		
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13.		
14.		
15.		
16.		
17.		
18.		
19.		
20.		

Total Cover: 145

Plot size 30 ft radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____

Prevalence Index:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = 0
FACW species 70	x 2 = 140
FAC species 75	x 3 = 225
FACU species _____	x 4 = 0
UPL species _____	x 5 = 0
Column Totals: 145 (A)	365 (B)

Prevalence Index = B/A = 2.5

Other Indicators of Hydrophytic Vegetation:
(Record supporting data in Remarks or on a separate sheet.)

___ Wetland Cryptogams (record species and cover at left)

___ Morphological Adaptations

___ Problematic Hydrophytic Vegetation (Explain)

Hydrophytic Vegetation Present? Yes X No _____

Remarks:
Herb-grass meadow adjacent to small creek.

SOIL

Sampling Point: DP-38 (#540)

Profile Description: (Describe to the depth needed to document the indicator.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-24	black						muck	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators:

- [X] Histosol or Histel (A1)
- [ ] Histic Epipedon (A2)
- [ ] Hydrogen Sulfide (A4)
- [ ] Thick Dark Surface (A12)
- [ ] Alaska Gleyed (A13)
- [ ] Alaska Redox (A14)
- [ ] Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- [ ] Alaska Color Change (TA4)[4]
- [ ] Alaska Alpine Swales (TA5)
- [ ] Alaska Redox With 2.5Y Hue
- [ ] Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- [ ] Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present.

[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes [X] No [ ]

Remarks:
Histic cryaquept inclusion within Deception-Estelle-Kichatna complex mapped by NRCS (2001).

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- [X] Surface Water (A1)
- [X] High Water Table (A2)
- [X] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Mat or Crust of Algae or Marl (B4)
- [ ] Iron Deposits (B5)
- [ ] Surface Soil Cracks (B6)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Dry-Season Water Table (C2)
- [ ] Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- [ ] Water-stained Leaves (B9)
- [ ] Drainage Patterns (B10)
- [ ] Oxidized Rhizospheres on Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Salt Deposits (C5)
- [ ] Stunted or Stressed Plants (D1)
- [ ] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4)
- [ ] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes [X] No [ ] Depth (inches): 2

Water Table Present? Yes [X] No [ ] Depth (inches): 3

Saturation Present? (includes capillary fringe) Yes [X] No [ ] Depth (inches): 0

Wetland Hydrology Present? Yes [X] No [ ]

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Herb-grass meadow adjacent to small creek.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Legacy Pointe Tracts A & B Borough/City: Anchorage, Alaska Sampling Date: 24-Jun-06

Applicant/Owner: Forest Heights, LLC Sampling Point: DP-39 (#541)

Investigator(s): Pat Athey Landform (hillside, terrace, hummocks, etc.): Hillside Slope

Local relief (concave, convex, none): Flat Slope (%): _____

Subregion: Southcentral Lat: N61.06306 Long: W149.78029 Datum: NAD 27 Alaska

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:
Wetland associated wth small seeps in area.

VEGETATION

Species (Use scientific names. List all species in plot.)	Absolute % Cover	Indicator Status
1. Alnus sinuata - FAC	50	FAC
2. Oplopanax horridus - FACU	30	FACU
3. Equisetum palustre - FACW	50	FACW
4. Calamagrostis canadensis - FAC	50	FAC
5. Angelica genuflexa - FACW	30	FACW
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		
17.		
18.		
19.		
20.		

Total Cover: 210

Plot size 30 ft radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____

Prevalence Index:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	0
FACW species	80	x 2 =	160
FAC species	100	x 3 =	300
FACU species	30	x 4 =	120
UPL species		x 5 =	0
Column Totals:	210 (A)		580 (B)

Prevalence Index = B/A = 2.8

Other Indicators of Hydrophytic Vegetation:
(Record supporting data in Remarks or on a separate sheet.)

___ Wetland Cryptogams (record species and cover at left)

___ Morphological Adaptations

___ Problematic Hydrophytic Vegetation (Explain)

Hydrophytic Vegetation Present? Yes X No _____

Remarks:
Small marsh associated with seep.

SOIL

Sampling Point: DP-39 (#541)

Profile Description: (Describe to the depth needed to document the indicator.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-20	black						muck	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators:

- [X] Histosol or Histel (A1)
- [ ] Histic Epipedon (A2)
- [ ] Hydrogen Sulfide (A4)
- [ ] Thick Dark Surface (A12)
- [ ] Alaska Gleyed (A13)
- [ ] Alaska Redox (A14)
- [ ] Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- [ ] Alaska Color Change (TA4)[4]
- [ ] Alaska Alpine Swales (TA5)
- [ ] Alaska Redox With 2.5Y Hue
- [ ] Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- [ ] Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present.

[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes [X] No [ ]

Remarks:
Histic cryaquept inclusion within Deception-Estelle-Kichatna complex mapped by NRCS (2001).

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [X] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Mat or Crust of Algae or Marl (B4)
- [ ] Iron Deposits (B5)
- [ ] Surface Soil Cracks (B6)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Dry-Season Water Table (C2)
- [ ] Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- [ ] Water-stained Leaves (B9)
- [ ] Drainage Patterns (B10)
- [ ] Oxidized Rhizospheres on Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Salt Deposits (C5)
- [ ] Stunted or Stressed Plants (D1)
- [ ] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4)
- [ ] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes [ ] No [X] Depth (inches): _____

Water Table Present? Yes [ ] No [X] Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes [X] No [ ] Depth (inches): 0

Wetland Hydrology Present? Yes [X] No [ ]

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Seeps and small creek in area.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Legacy Pointe Tracts A & B Borough/City: Anchorage, Alaska Sampling Date: 24-Jun-06

Applicant/Owner: Forest Heights, LLC Sampling Point: DP-40 (#542)

Investigator(s): Pat Athey Landform (hillside, terrace, hummocks, etc.): Hillside Slope

Local relief (concave, convex, none): Flat Slope (%): _____

Subregion: Southcentral Lat: N61.06346 Long: W149.78058 Datum: NAD 27 Alaska

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:
Wetland associated wth small seeps in area.

VEGETATION

Species (Use scientific names. List all species in plot.)	Absolute % Cover	Indicator Status
1. Betula papyrifera - FACU	30	FACU
2. Alnus tenuifolia - FAC	30	FAC
3. Oplopanax horridus - FACU	30	FACU
4. Equisetum palustre - FACW	50	FACW
5. Calamagrostis canadensis - FAC	40	FAC
6. Angelica genuflexa - FACW	20	FACW
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		
17.		
18.		
19.		
20.		

Total Cover: 200

Plot size 30 ft radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____

Prevalence Index:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	0
FACW species	70	x 2 =	140
FAC species	70	x 3 =	210
FACU species	60	x 4 =	240
UPL species		x 5 =	0
Column Totals:	200 (A)		590 (B)

Prevalence Index = B/A = 3.0

Other Indicators of Hydrophytic Vegetation:
(Record supporting data in Remarks or on a separate sheet.)

___ Wetland Cryptogams (record species and cover at left)

___ Morphological Adaptations

___ Problematic Hydrophytic Vegetation (Explain)

Hydrophytic Vegetation Present? Yes X No _____

Remarks:
Herb-grass meadow adjacent to small seeps.

SOIL

Sampling Point: DP-40 (#542)

Profile Description: (Describe to the depth needed to document the indicator.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-20	black						muck	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators:

- [X] Histosol or Histel (A1)
- [ ] Histic Epipedon (A2)
- [ ] Hydrogen Sulfide (A4)
- [ ] Thick Dark Surface (A12)
- [ ] Alaska Gleyed (A13)
- [ ] Alaska Redox (A14)
- [ ] Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- [ ] Alaska Color Change (TA4)[4]
- [ ] Alaska Alpine Swales (TA5)
- [ ] Alaska Redox With 2.5Y Hue
- [ ] Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- [ ] Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present.

[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes [X] No [ ]

Remarks:
Histic cryaquept inclusion within Deception-Estelle-Kichatna complex mapped by NRCS (2001).

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- [ ] Surface Water (A1)
- [X] High Water Table (A2)
- [X] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Mat or Crust of Algae or Marl (B4)
- [ ] Iron Deposits (B5)
- [ ] Surface Soil Cracks (B6)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Dry-Season Water Table (C2)
- [ ] Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- [ ] Water-stained Leaves (B9)
- [ ] Drainage Patterns (B10)
- [ ] Oxidized Rhizospheres on Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Salt Deposits (C5)
- [ ] Stunted or Stressed Plants (D1)
- [ ] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4)
- [ ] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes [ ] No [X] Depth (inches): _____

Water Table Present? Yes [X] No [ ] Depth (inches): 12

Saturation Present? (includes capillary fringe) Yes [X] No [ ] Depth (inches): 5

Wetland Hydrology Present? Yes [X] No [ ]

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Seeps located in area.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Legacy Pointe Tracts A & B Borough/City: Anchorage, Alaska Sampling Date: 24-Jun-06

Applicant/Owner: Forest Heights, LLC Sampling Point: DP-41 (#544)

Investigator(s): Pat Athey Landform (hillside, terrace, hummocks, etc.): Hillside Slope

Local relief (concave, convex, none): Sloping to west Slope (%): 5%

Subregion: Southcentral Lat: N61.06249 Long: W149.78117 Datum: NAD 27 Alaska

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:
Wetland associated wth small seeps in area.

VEGETATION

Species (Use scientific names. List all species in plot.)	Absolute % Cover	Indicator Status
1. Alnus sinuata - FAC	50	FAC
2. Oplopanax horridus - FACU	30	FACU
3. Calamagrostis canadensis - FAC	50	FAC
4. Equisetum palustre - FACW	40	FACW
5. Angelica genuflexa - FACW	30	FACW
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		
17.		
18.		
19.		
20.		

Total Cover: 200

Plot size 30 ft radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____

Prevalence Index:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	0
FACW species	70	x 2 =	140
FAC species	100	x 3 =	300
FACU species	30	x 4 =	120
UPL species		x 5 =	0
Column Totals:	200 (A)		560 (B)

Prevalence Index = B/A = 2.8

Other Indicators of Hydrophytic Vegetation:
(Record supporting data in Remarks or on a separate sheet.)

___ Wetland Cryptogams (record species and cover at left)

___ Morphological Adaptations

___ Problematic Hydrophytic Vegetation (Explain)

Hydrophytic Vegetation Present? Yes X No _____

Remarks:
Small marsh associated with seep.

SOIL

Sampling Point: DP-41 (#544)

Profile Description: (Describe to the depth needed to document the indicator.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-20	black						muck	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators:

- [X] Histosol or Histel (A1)
- [ ] Histic Epipedon (A2)
- [ ] Hydrogen Sulfide (A4)
- [ ] Thick Dark Surface (A12)
- [ ] Alaska Gleyed (A13)
- [ ] Alaska Redox (A14)
- [ ] Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- [ ] Alaska Color Change (TA4)[4]
- [ ] Alaska Alpine Swales (TA5)
- [ ] Alaska Redox With 2.5Y Hue
- [ ] Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- [ ] Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present.

[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes [X] No [ ]

Remarks:
Histic cryaquept inclusion within Deception-Estelle-Kichatna complex mapped by NRCS (2001).

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- [X] Surface Water (A1)
- [X] High Water Table (A2)
- [X] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Mat or Crust of Algae or Marl (B4)
- [ ] Iron Deposits (B5)
- [ ] Surface Soil Cracks (B6)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Dry-Season Water Table (C2)
- [ ] Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- [ ] Water-stained Leaves (B9)
- [ ] Drainage Patterns (B10)
- [ ] Oxidized Rhizospheres on Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Salt Deposits (C5)
- [ ] Stunted or Stressed Plants (D1)
- [ ] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4)
- [ ] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes [X] No [ ] Depth (inches): 2

Water Table Present? Yes [X] No [ ] Depth (inches): 10

Saturation Present? (includes capillary fringe) Yes [X] No [ ] Depth (inches): 0

Wetland Hydrology Present? Yes [X] No [ ]

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Adjacent to small seep.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Legacy Pointe Tracts A & B Borough/City: Anchorage, Alaska Sampling Date: 25-Jun-06

Applicant/Owner: Forest Heights, LLC Sampling Point: DP-42 (#563)

Investigator(s): Pat Athey Landform (hillside, terrace, hummocks, etc.): Hillside Slope

Local relief (concave, convex, none): Sloping to west Slope (%): 5%

Subregion: Southcentral Lat: N61.06258 Long: W149.78165 Datum: NAD 27 Alaska

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:
Wetland associated with a small creek to north.

VEGETATION

Species (Use scientific names. List all species in plot.)	Absolute % Cover	Indicator Status
1. Alnus sinuata - FAC	10	FAC
2. Equisetum palustre - FACW	90	FACW
3. Calamagrostis canadensis - FAC	50	FAC
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		
17.		
18.		
19.		
20.		

Total Cover: 150

Plot size 30 ft radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____

Prevalence Index:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	0
FACW species	90	x 2 =	180
FAC species	60	x 3 =	180
FACU species	_____	x 4 =	0
UPL species	_____	x 5 =	0
Column Totals:	150 (A)		360 (B)

Prevalence Index = B/A = 2.4

Other Indicators of Hydrophytic Vegetation:
(Record supporting data in Remarks or on a separate sheet.)

___ Wetland Cryptogams (record species and cover at left)

___ Morphological Adaptations

___ Problematic Hydrophytic Vegetation (Explain)

Hydrophytic Vegetation Present? Yes X No _____

Remarks:
Herb-grass meadow adjacent to small creek.

SOIL

Sampling Point: DP-42 (#563)

Profile Description: (Describe to the depth needed to document the indicator.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	black						muck	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators:

- [X] Histosol or Histel (A1)
- [ ] Histic Epipedon (A2)
- [ ] Hydrogen Sulfide (A4)
- [ ] Thick Dark Surface (A12)
- [ ] Alaska Gleyed (A13)
- [ ] Alaska Redox (A14)
- [ ] Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- [ ] Alaska Color Change (TA4)[4]
- [ ] Alaska Alpine Swales (TA5)
- [ ] Alaska Redox With 2.5Y Hue
- [ ] Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- [ ] Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present.

[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes [X] No [ ]

Remarks:
Histic cryaquept inclusion within Deception-Estelle-Kichatna complex mapped by NRCS (2001).

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [X] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Mat or Crust of Algae or Marl (B4)
- [ ] Iron Deposits (B5)
- [ ] Surface Soil Cracks (B6)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Dry-Season Water Table (C2)
- [ ] Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- [ ] Water-stained Leaves (B9)
- [ ] Drainage Patterns (B10)
- [ ] Oxidized Rhizospheres on Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Salt Deposits (C5)
- [ ] Stunted or Stressed Plants (D1)
- [ ] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4)
- [ ] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes [ ] No [X] Depth (inches): _____

Water Table Present? Yes [ ] No [X] Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes [X] No [ ] Depth (inches): 0

Wetland Hydrology Present? Yes [X] No [ ]

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Seeps located up slope.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Legacy Pointe Tracts A & B Borough/City: Anchorage, Alaska Sampling Date: 25-Jun-06

Applicant/Owner: Forest Heights, LLC Sampling Point: DP-43 (#567)

Investigator(s): Pat Athey Landform (hillside, terrace, hummocks, etc.): Hillside Slope

Local relief (concave, convex, none): Gentle slope to west Slope (%): 1%

Subregion: Southcentral Lat: N61.06288 Long: W149.78186 Datum: NAD 27 Alaska

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:
Wetland associated with a small creek to north.

VEGETATION

Species (Use scientific names. List all species in plot.)	Absolute % Cover	Indicator Status
1. Calamagrostis canadensis - FAC	80	FAC
2. Angelica genuflexa - FACW	20	FACW
3. Equisetum palustre - FACW	30	FACW
4. Alnus sinuata - FAC	20	FAC
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		
17.		
18.		
19.		
20.		

Total Cover: 150

Plot size 30 ft radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____

Prevalence Index:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = 0
FACW species 50	x 2 = 100
FAC species 100	x 3 = 300
FACU species _____	x 4 = 0
UPL species _____	x 5 = 0
Column Totals: 150 (A)	400 (B)

Prevalence Index = B/A = 2.7

Other Indicators of Hydrophytic Vegetation:
(Record supporting data in Remarks or on a separate sheet.)

___ Wetland Cryptogams (record species and cover at left)

___ Morphological Adaptations

___ Problematic Hydrophytic Vegetation (Explain)

Hydrophytic Vegetation Present? Yes X No _____

Remarks:
Herb-grass meadow adjacent to small creek.

SOIL

Sampling Point: DP-43 (#567)

Profile Description: (Describe to the depth needed to document the indicator.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-20	black						muck	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators:

- [X] Histosol or Histel (A1)
- [ ] Histic Epipedon (A2)
- [ ] Hydrogen Sulfide (A4)
- [ ] Thick Dark Surface (A12)
- [ ] Alaska Gleyed (A13)
- [ ] Alaska Redox (A14)
- [ ] Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- [ ] Alaska Color Change (TA4)[4]
- [ ] Alaska Alpine Swales (TA5)
- [ ] Alaska Redox With 2.5Y Hue
- [ ] Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- [ ] Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present.

[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes [X] No [ ]

Remarks:
Histic cryaquept inclusion within Deception-Estelle-Kichatna complex mapped by NRCS (2001).

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [X] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Mat or Crust of Algae or Marl (B4)
- [ ] Iron Deposits (B5)
- [ ] Surface Soil Cracks (B6)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Dry-Season Water Table (C2)
- [ ] Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- [ ] Water-stained Leaves (B9)
- [ ] Drainage Patterns (B10)
- [ ] Oxidized Rhizospheres on Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Salt Deposits (C5)
- [ ] Stunted or Stressed Plants (D1)
- [ ] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4)
- [ ] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes [ ] No [X] Depth (inches): _____

Water Table Present? Yes [ ] No [X] Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes [X] No [ ] Depth (inches): 6

Wetland Hydrology Present? Yes [X] No [ ]

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Adjacent to small creek.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Legacy Pointe Tracts A & B Borough/City: Anchorage, Alaska Sampling Date: 25-Jun-06

Applicant/Owner: Forest Heights, LLC Sampling Point: DP-44 (#569)

Investigator(s): Pat Athey Landform (hillside, terrace, hummocks, etc.): Hillside Slope

Local relief (concave, convex, none): Gentle slope to west Slope (%): 1%

Subregion: Southcentral Lat: N61.06260 Long: W149.78267 Datum: NAD 27 Alaska

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:
Wetland associated with a small creek to north.

VEGETATION

Species (Use scientific names. List all species in plot.)	Absolute % Cover	Indicator Status
1. Alnus sinuata - FAC	20	FAC
2. Oplopanax horridus - FACU	20	FACU
3. Equisetum palustre - FACW	30	FACW
4. Calamagrostis canadensis - FAC	80	FAC
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		
17.		
18.		
19.		
20.		

Total Cover: 150

Plot size 30 ft radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____

Prevalence Index:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = 0
FACW species 30	x 2 = 60
FAC species 100	x 3 = 300
FACU species 20	x 4 = 80
UPL species _____	x 5 = 0
Column Totals: 150 (A)	440 (B)

Prevalence Index = B/A = 2.9

Other Indicators of Hydrophytic Vegetation:
(Record supporting data in Remarks or on a separate sheet.)

___ Wetland Cryptogams (record species and cover at left)

___ Morphological Adaptations

___ Problematic Hydrophytic Vegetation (Explain)

Hydrophytic Vegetation Present? Yes X No _____

Remarks:
Herb-grass meadow adjacent to small creek.

SOIL

Sampling Point: DP-44 (#569)

Profile Description: (Describe to the depth needed to document the indicator.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	black						muck	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol or Histel (A1)
- X Histic Epipedon (A2)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- ___ Alaska Color Change (TA4)[4]
- ___ Alaska Alpine Swales (TA5)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present.

[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ____

Remarks:
Histic cryaquept inclusion within Deception-Estelle-Kichatna complex mapped by NRCS (2001).

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Mat or Crust of Algae or Marl (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes X No ____ Depth (inches): 4

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Adjacent to small creek.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Legacy Pointe Tracts A & B Borough/City: Anchorage, Alaska Sampling Date: 25-Jun-06

Applicant/Owner: Forest Heights, LLC Sampling Point: DP-45 (#577)

Investigator(s): Pat Athey Landform (hillside, terrace, hummocks, etc.): Hillside Slope

Local relief (concave, convex, none): Gentle slope to west Slope (%): 1%

Subregion: Southcentral Lat: N61.06232 Long: W149.78494 Datum: NAD 27 Alaska

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:
Wetland associated with a small creek to north.

VEGETATION

Species (Use scientific names. List all species in plot.)	Absolute % Cover	Indicator Status
1. Calamagrostis canadensis - FAC	80	FAC
2. Oplopanax horridus - FACU	40	FACU
3. Equisetum palustre - FACW	20	FACW
4. Alnus sinuata - FAC	20	FAC
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		
17.		
18.		
19.		
20.		

Total Cover: 160

Plot size 30 ft radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____

Prevalence Index:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = 0
FACW species 20	x 2 = 40
FAC species 100	x 3 = 300
FACU species 40	x 4 = 160
UPL species _____	x 5 = 0
Column Totals: 160 (A)	500 (B)

Prevalence Index = B/A = 3.1

Other Indicators of Hydrophytic Vegetation:
(Record supporting data in Remarks or on a separate sheet.)

___ Wetland Cryptogams (record species and cover at left)

___ Morphological Adaptations

___ Problematic Hydrophytic Vegetation (Explain)

Hydrophytic Vegetation Present? Yes X No _____

Remarks:
Herb-grass meadow adjacent to small creek.

SOIL

Sampling Point: DP-45 (#577)

Profile Description: (Describe to the depth needed to document the indicator.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	black						muck	
10-16	dark brown						silt loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol or Histel (A1)
- X Histic Epipedon (A2)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- ___ Alaska Color Change (TA4)[4]
- ___ Alaska Alpine Swales (TA5)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present.

[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ____

Remarks:

Histic cryaquept inclusion within Deception-Estelle-Kichatna complex mapped by NRCS (2001).

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Mat or Crust of Algae or Marl (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes X No ____ Depth (inches): 2

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adjacent to small creek.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Legacy Pointe Tracts A & B Borough/City: Anchorage, Alaska Sampling Date: 25-Jun-06

Applicant/Owner: Forest Heights, LLC Sampling Point: DP-46 (#589)

Investigator(s): Pat Athey Landform (hillside, terrace, hummocks, etc.): Hillside Slope

Local relief (concave, convex, none): Gentle slope to west Slope (%): 1%

Subregion: Southcentral Lat: N61.06290 Long: W149.78413 Datum: NAD 27 Alaska

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:
Outside boundary of wetland to south.

VEGETATION

Species (Use scientific names. List all species in plot.)	Absolute % Cover	Indicator Status
1. Calamagrostis canadensis - FAC	50	FAC
2. Equisetum arvense - FACU	50	FACU
3. Rosa acicularis - FACU	30	FACU
4. Rubus idaeus - FAC	40	FAC
5.		
6.		
7.		
8.		
9.		
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13.		
14.		
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16.		
17.		
18.		
19.		
20.		

Total Cover: 170

Plot size 30 ft radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____

Prevalence Index:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	0
FACW species		x 2 =	0
FAC species	90	x 3 =	270
FACU species	80	x 4 =	320
UPL species		x 5 =	0
Column Totals:	170 (A)		590 (B)

Prevalence Index = B/A = 3.5

Other Indicators of Hydrophytic Vegetation:
(Record supporting data in Remarks or on a separate sheet.)

___ Wetland Cryptogams (record species and cover at left)

___ Morphological Adaptations

___ Problematic Hydrophytic Vegetation (Explain)

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:
Herb-grass meadow.

SOIL

Sampling Point: DP-46 (#589)

Profile Description: (Describe to the depth needed to document the indicator.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2							organics	
2-8	black						muck	
8-12	yellow-red						sandy loam w/ cobbles	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol or Histel (A1)
- ___ Histic Epipedon (A2)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- ___ Alaska Color Change (TA4)[4]
- ___ Alaska Alpine Swales (TA5)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present.

[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
Deception-Estelle-Kichatna complex mapped by NRCS (2001).

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Mat or Crust of Algae or Marl (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No surface water features present.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Legacy Pointe Tracts A & B Borough/City: Anchorage, Alaska Sampling Date: 1-Jul-06

Applicant/Owner: Forest Heights, LLC Sampling Point: DP-47 (#598)

Investigator(s): Pat Athey Landform (hillside, terrace, hummocks, etc.): Hillside Slope

Local relief (concave, convex, none): Sloping to west Slope (%): 5%

Subregion: Southcentral Lat: N61.06318 Long: W149.78199 Datum: NAD 27 Alaska

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:
Outside boundary of wetland to south.

VEGETATION

Species (Use scientific names. List all species in plot.)	Absolute % Cover	Indicator Status
1. Betula papyrifera - FACU	50	FACU
2. Alnus tenuifolia - FAC	25	FAC
3. Rosa acicularis - FACU	25	FACU
4. Menziesia ferruginea - UPL	15	UPL
5. Oplopanax horridus - FACU	15	FACU
6. Equisetum arvense - FACU	50	FACU
7. Calamagrostis canadensis - FAC	50	FAC
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		
17.		
18.		
19.		
20.		

Total Cover: 230

Plot size 30 ft radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____

Prevalence Index:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = 0
FACW species _____	x 2 = 0
FAC species 75	x 3 = 225
FACU species 195	x 4 = 780
UPL species 15	x 5 = 75
Column Totals: 230 (A)	1080 (B)

Prevalence Index = B/A = 4.7

Other Indicators of Hydrophytic Vegetation:
(Record supporting data in Remarks or on a separate sheet.)

___ Wetland Cryptogams (record species and cover at left)

___ Morphological Adaptations

___ Problematic Hydrophytic Vegetation (Explain)

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:
Herb-grass meadow.

SOIL

Sampling Point: DP-47 (#598)

Profile Description: (Describe to the depth needed to document the indicator.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2							organics	
2-20	yellow-red						sandy loam w/ cobbles	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present.

[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:
Deception-Estelle-Kichatna complex mapped by NRCS (2001).

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ Surface Water (A1)
___ High Water Table (A2)
___ Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Mat or Crust of Algae or Marl (B4)
___ Iron Deposits (B5)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres on Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Salt Deposits (C5)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No surface water features present.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Legacy Pointe Tracts A & B Borough/City: Anchorage, Alaska Sampling Date: 1-Jul-06

Applicant/Owner: Forest Heights, LLC Sampling Point: DP-48 (#601)

Investigator(s): Pat Athey Landform (hillside, terrace, hummocks, etc.): Hillside Slope

Local relief (concave, convex, none): Flat Slope (%): _____

Subregion: Southcentral Lat: N61.06310 Long: W149.78091 Datum: NAD 27 Alaska

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:
Wetland associated wth small seeps in area.

VEGETATION

Species (Use scientific names. List all species in plot.)	Absolute % Cover	Indicator Status
1. Betula papyrifera - FACU	50	FACU
2. Alnus tenuifolia - FAC	15	FAC
3. Rosa acicularis - FACU	25	FACU
4. Calamagrostis canadensis - FAC	50	FAC
5. Equisetum palustre - FACW	50	FACW
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		
17.		
18.		
19.		
20.		

Total Cover: 190

Plot size 30 ft radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____

Prevalence Index:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	0
FACW species	50	x 2 =	100
FAC species	65	x 3 =	195
FACU species	75	x 4 =	300
UPL species	_____	x 5 =	0
Column Totals:	190 (A)		595 (B)

Prevalence Index = B/A = 3.1

Other Indicators of Hydrophytic Vegetation:
(Record supporting data in Remarks or on a separate sheet.)

___ Wetland Cryptogams (record species and cover at left)

___ Morphological Adaptations

X Problematic Hydrophytic Vegetation (Explain)

Hydrophytic Vegetation Present? Yes X No _____

Remarks:
Vegetation considered to be hydrophytic due to presence of saturated histic soils. Herb-grass meadow.

SOIL

Sampling Point: DP-48 (#601)

Profile Description: (Describe to the depth needed to document the indicator.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	black						muck	
10-16	dark brown						silt loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
X Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present.

[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ____

Remarks:
Histic cryaquept inclusion within Deception-Estelle-Kichatna complex mapped by NRCS (2001).

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ Surface Water (A1)
___ High Water Table (A2)
X Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Mat or Crust of Algae or Marl (B4)
___ Iron Deposits (B5)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres on Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Salt Deposits (C5)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes X No ____ Depth (inches): 6

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Seeps located up slope.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Legacy Pointe Tracts A & B Borough/City: Anchorage, Alaska Sampling Date: 1-Jul-06

Applicant/Owner: Forest Heights, LLC Sampling Point: DP-49 (#607)

Investigator(s): Pat Athey Landform (hillside, terrace, hummocks, etc.): Hillside Slope

Local relief (concave, convex, none): Flat Slope (%): _____

Subregion: Southcentral Lat: N61.06361 Long: W149.78103 Datum: NAD 27 Alaska

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:
Wetland associated wth small seeps in area.

VEGETATION

Species (Use scientific names. List all species in plot.)	Absolute % Cover	Indicator Status
1. Betula papyrifera - FACU	20	FACU
2. Alnus tenuifolia - FAC	30	FAC
3. Calamagrostis canadensis - FAC	50	FAC
4. Equisetum palustre - FACW	50	FACW
5.		
6.		
7.		
8.		
9.		
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11.		
12.		
13.		
14.		
15.		
16.		
17.		
18.		
19.		
20.		

Total Cover: 150

Plot size 30 ft radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____

Prevalence Index:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	0
FACW species	50	x 2 =	100
FAC species	80	x 3 =	240
FACU species	20	x 4 =	80
UPL species	_____	x 5 =	0
Column Totals:	150 (A)		420 (B)

Prevalence Index = B/A = 2.8

Other Indicators of Hydrophytic Vegetation:
(Record supporting data in Remarks or on a separate sheet.)

___ Wetland Cryptogams (record species and cover at left)

___ Morphological Adaptations

___ Problematic Hydrophytic Vegetation (Explain)

Hydrophytic Vegetation Present? Yes X No _____

Remarks:
Herb-grass meadow.

SOIL

Sampling Point: DP-49 (#607)

Profile Description: (Describe to the depth needed to document the indicator.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	black						muck	
8-14	yellow-red						silt loam w/ cobbles	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol or Histel (A1)
- X Histic Epipedon (A2)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- ___ Alaska Color Change (TA4)[4]
- ___ Alaska Alpine Swales (TA5)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present.

[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ____

Remarks:
Histic cryaquept inclusion within Deception-Estelle-Kichatna complex mapped by NRCS (2001).

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Mat or Crust of Algae or Marl (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes X No ____ Depth (inches): 10

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Seeps located up slope.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Legacy Pointe Tracts A & B Borough/City: Anchorage, Alaska Sampling Date: 1-Jul-06

Applicant/Owner: Forest Heights, LLC Sampling Point: DP-50 (#609)

Investigator(s): Pat Athey Landform (hillside, terrace, hummocks, etc.): Hillside Slope

Local relief (concave, convex, none): Flat Slope (%): _____

Subregion: Southcentral Lat: N61.06360 Long: W149.78124 Datum: NAD 27 Alaska

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:
Wetland associated wth small seeps upslope.

VEGETATION

Species (Use scientific names. List all species in plot.)	Absolute % Cover	Indicator Status
1. Betula papyrifera - FACU	25	FACU
2. Oplopanax horridus - FACU	25	FACU
3. Equisetum palustre - FACW	75	FACW
4. Calamagrostis canadensis - FAC	50	FAC
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		
17.		
18.		
19.		
20.		

Total Cover: 175

Plot size 30 ft radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____

Prevalence Index:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	0
FACW species	75	x 2 =	150
FAC species	50	x 3 =	150
FACU species	50	x 4 =	200
UPL species		x 5 =	0
Column Totals:	175 (A)		500 (B)

Prevalence Index = B/A = 2.9

Other Indicators of Hydrophytic Vegetation:
(Record supporting data in Remarks or on a separate sheet.)

___ Wetland Cryptogams (record species and cover at left)

___ Morphological Adaptations

___ Problematic Hydrophytic Vegetation (Explain)

Hydrophytic Vegetation Present? Yes X No _____

Remarks:
Herb-grass meadow.

SOIL

Sampling Point: DP-50 (#609)

Profile Description: (Describe to the depth needed to document the indicator.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	black						muck	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators:

- [X] Histosol or Histel (A1)
- [ ] Histic Epipedon (A2)
- [ ] Hydrogen Sulfide (A4)
- [ ] Thick Dark Surface (A12)
- [ ] Alaska Gleyed (A13)
- [ ] Alaska Redox (A14)
- [ ] Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- [ ] Alaska Color Change (TA4)[4]
- [ ] Alaska Alpine Swales (TA5)
- [ ] Alaska Redox With 2.5Y Hue
- [ ] Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- [ ] Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present.

[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes [X] No [ ]

Remarks:
Histic cryaquept inclusion within Deception-Estelle-Kichatna complex mapped by NRCS (2001).

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [X] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Mat or Crust of Algae or Marl (B4)
- [ ] Iron Deposits (B5)
- [ ] Surface Soil Cracks (B6)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Dry-Season Water Table (C2)
- [ ] Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- [ ] Water-stained Leaves (B9)
- [ ] Drainage Patterns (B10)
- [ ] Oxidized Rhizospheres on Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Salt Deposits (C5)
- [ ] Stunted or Stressed Plants (D1)
- [ ] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4)
- [ ] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes [ ] No [X] Depth (inches): _____

Water Table Present? Yes [ ] No [X] Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes [X] No [ ] Depth (inches): 2

Wetland Hydrology Present? Yes [X] No [ ]

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Seeps located up slope.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Legacy Pointe Tracts A & B Borough/City: Anchorage, Alaska Sampling Date: 1-Jul-06

Applicant/Owner: Forest Heights, LLC Sampling Point: DP-51 (#610)

Investigator(s): Pat Athey Landform (hillside, terrace, hummocks, etc.): Hillside Slope

Local relief (concave, convex, none): Flat Slope (%): _____

Subregion: Southcentral Lat: N61.06349 Long: W149.78164 Datum: NAD 27 Alaska

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:
Wetland associated wth small seeps upslope.

VEGETATION

Species (Use scientific names. List all species in plot.)	Absolute % Cover	Indicator Status
1. Betula papyrifera - FACU	75	FACU
2. Alnus tenuifolia - FAC	25	FAC
3. Rubus idaeus - FAC	50	FAC
4. Calamagrostis canadensis - FAC	95	FAC
5.		
6.		
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9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		
17.		
18.		
19.		
20.		

Total Cover: 245

Plot size 30 ft radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____

Prevalence Index:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	0
FACW species	_____	x 2 =	0
FAC species	170	x 3 =	510
FACU species	75	x 4 =	300
UPL species	_____	x 5 =	0
Column Totals:	245 (A)		810 (B)

Prevalence Index = B/A = 3.3

Other Indicators of Hydrophytic Vegetation:
(Record supporting data in Remarks or on a separate sheet.)

___ Wetland Cryptogams (record species and cover at left)

___ Morphological Adaptations

X Problematic Hydrophytic Vegetation (Explain)

Hydrophytic Vegetation Present? Yes X No _____

Remarks:
Vegetation considered to be hydrophytic due to presence of saturated histic soils. Herb-grass meadow.

SOIL

Sampling Point: DP-51 (#610)

Profile Description: (Describe to the depth needed to document the indicator.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	black						muck	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators:

- [X] Histosol or Histel (A1)
- [ ] Histic Epipedon (A2)
- [ ] Hydrogen Sulfide (A4)
- [ ] Thick Dark Surface (A12)
- [ ] Alaska Gleyed (A13)
- [ ] Alaska Redox (A14)
- [ ] Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- [ ] Alaska Color Change (TA4)[4]
- [ ] Alaska Alpine Swales (TA5)
- [ ] Alaska Redox With 2.5Y Hue
- [ ] Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- [ ] Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present.

[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes [X] No [ ]

Remarks:
Histic cryaquept inclusion within Deception-Estelle-Kichatna complex mapped by NRCS (2001).

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [X] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Mat or Crust of Algae or Marl (B4)
- [ ] Iron Deposits (B5)
- [ ] Surface Soil Cracks (B6)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Dry-Season Water Table (C2)
- [ ] Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- [ ] Water-stained Leaves (B9)
- [ ] Drainage Patterns (B10)
- [ ] Oxidized Rhizospheres on Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Salt Deposits (C5)
- [ ] Stunted or Stressed Plants (D1)
- [ ] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4)
- [ ] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes [ ] No [X] Depth (inches): _____

Water Table Present? Yes [ ] No [X] Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes [X] No [ ] Depth (inches): X

Wetland Hydrology Present? Yes [X] No [ ]

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Seeps located up slope.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Legacy Pointe Tracts A & B Borough/City: Anchorage, Alaska Sampling Date: 2-Jul-06

Applicant/Owner: Forest Heights, LLC Sampling Point: DP-52 (#628)

Investigator(s): Pat Athey Landform (hillside, terrace, hummocks, etc.): Hillside Slope

Local relief (concave, convex, none): Flat Slope (%): _____

Subregion: Southcentral Lat: N61.06417 Long: W149.78395 Datum: NAD 27 Alaska

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:
Wetland associated with a small creek to north.

VEGETATION

Species (Use scientific names. List all species in plot.)	Absolute % Cover	Indicator Status
1. Alnus sinuata - FAC	25	FAC
2. Oplopanax horridus - FACU	50	FACU
3. Calamagrostis canadensis - FAC	95	FAC
4. Angelica genuflexa - FACW	50	FACW
5. Athyrium filix-femina - FAC	25	FAC
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		
17.		
18.		
19.		
20.		

Total Cover: 245

Plot size 30 ft radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____

Prevalence Index:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	0
FACW species	50	x 2 =	100
FAC species	145	x 3 =	435
FACU species	50	x 4 =	200
UPL species	_____	x 5 =	0
Column Totals:	245 (A)		735 (B)

Prevalence Index = B/A = 3.0

Other Indicators of Hydrophytic Vegetation:
(Record supporting data in Remarks or on a separate sheet.)

___ Wetland Cryptogams (record species and cover at left)

___ Morphological Adaptations

___ Problematic Hydrophytic Vegetation (Explain)

Hydrophytic Vegetation Present? Yes X No _____

Remarks:
Herb-grass meadow adjacent to small creek.

SOIL

Sampling Point: DP-52 (#628)

Profile Description: (Describe to the depth needed to document the indicator.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	black						muck	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators:

- [X] Histosol or Histel (A1)
- [ ] Histic Epipedon (A2)
- [ ] Hydrogen Sulfide (A4)
- [ ] Thick Dark Surface (A12)
- [ ] Alaska Gleyed (A13)
- [ ] Alaska Redox (A14)
- [ ] Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- [ ] Alaska Color Change (TA4)[4]
- [ ] Alaska Alpine Swales (TA5)
- [ ] Alaska Redox With 2.5Y Hue
- [ ] Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- [ ] Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present.

[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes [X] No [ ]

Remarks:
Histic cryaquept inclusion within Deception-Estelle-Kichatna complex mapped by NRCS (2001).

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [X] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Mat or Crust of Algae or Marl (B4)
- [ ] Iron Deposits (B5)
- [ ] Surface Soil Cracks (B6)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Dry-Season Water Table (C2)
- [ ] Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- [ ] Water-stained Leaves (B9)
- [ ] Drainage Patterns (B10)
- [ ] Oxidized Rhizospheres on Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Salt Deposits (C5)
- [ ] Stunted or Stressed Plants (D1)
- [ ] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4)
- [ ] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes [ ] No [ ] Depth (inches): _____

Water Table Present? Yes [ ] No [ ] Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes [X] No [ ] Depth (inches): 6

Wetland Hydrology Present? Yes [X] No [ ]

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Adjacent to small creek.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Legacy Pointe Tracts A & B Borough/City: Anchorage, Alaska Sampling Date: 2-Jul-06

Applicant/Owner: Forest Heights, LLC Sampling Point: DP-53 (#658)

Investigator(s): Pat Athey Landform (hillside, terrace, hummocks, etc.): Hillside Slope

Local relief (concave, convex, none): Flat Slope (%): _____

Subregion: Southcentral Lat: N61.06189 Long: W149.78323 Datum: NAD 27 Alaska

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:
Wetland associated wth seep.

VEGETATION

Species (Use scientific names. List all species in plot.)	Absolute % Cover	Indicator Status
1. Alnus sinuata - FAC	25	FAC
2. Calamagrostis canadensis - FAC	50	FAC
3. Angelica genuflexa - FACW	25	FACW
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		
17.		
18.		
19.		
20.		
Total Cover:	100	

Plot size 30 ft radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____

Prevalence Index:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	0
FACW species	25	x 2 =	50
FAC species	75	x 3 =	225
FACU species	_____	x 4 =	0
UPL species	_____	x 5 =	0
Column Totals:	100 (A)		275 (B)

Prevalence Index = B/A = 2.8

Other Indicators of Hydrophytic Vegetation:
(Record supporting data in Remarks or on a separate sheet.)

___ Wetland Cryptogams (record species and cover at left)

___ Morphological Adaptations

___ Problematic Hydrophytic Vegetation (Explain)

Hydrophytic Vegetation Present? Yes X No _____

Remarks:
Alder thicket with herb-grass meadows.

SOIL

Sampling Point: DP-53 (#658)

Profile Description: (Describe to the depth needed to document the indicator.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-20	black						muck	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators:

- [X] Histosol or Histel (A1)
- [ ] Histic Epipedon (A2)
- [ ] Hydrogen Sulfide (A4)
- [ ] Thick Dark Surface (A12)
- [ ] Alaska Gleyed (A13)
- [ ] Alaska Redox (A14)
- [ ] Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- [ ] Alaska Color Change (TA4)[4]
- [ ] Alaska Alpine Swales (TA5)
- [ ] Alaska Redox With 2.5Y Hue
- [ ] Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- [ ] Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present.

[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes [X] No [ ]

Remarks:
Histic cryaquept inclusion within Deception-Estelle-Kichatna complex mapped by NRCS (2001).

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- [X] Surface Water (A1)
- [X] High Water Table (A2)
- [X] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Mat or Crust of Algae or Marl (B4)
- [ ] Iron Deposits (B5)
- [ ] Surface Soil Cracks (B6)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Dry-Season Water Table (C2)
- [ ] Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- [ ] Water-stained Leaves (B9)
- [ ] Drainage Patterns (B10)
- [ ] Oxidized Rhizospheres on Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Salt Deposits (C5)
- [ ] Stunted or Stressed Plants (D1)
- [ ] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4)
- [ ] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes [X] No [ ] Depth (inches): _____

Water Table Present? Yes [X] No [ ] Depth (inches): 2

Saturation Present? (includes capillary fringe) Yes [X] No [ ] Depth (inches): 0

Wetland Hydrology Present? Yes [X] No [ ]

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Adjacent to small seep.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Legacy Pointe Tracts A & B Borough/City: Anchorage, Alaska Sampling Date: 2-Jul-06

Applicant/Owner: Forest Heights, LLC Sampling Point: DP-54 (#661)

Investigator(s): Pat Athey Landform (hillside, terrace, hummocks, etc.): Hillside Slope

Local relief (concave, convex, none): Flat Slope (%): _____

Subregion: Southcentral Lat: N61.06153 Long: W149.78339 Datum: NAD 27 Alaska

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:
Wetland associated wth seep.

VEGETATION

Species (Use scientific names. List all species in plot.)	Absolute % Cover	Indicator Status
1. Alnus sinuata - FAC	50	FAC
2. Calamagrostis canadensis - FAC	50	FAC
3. Angelica genuflexa - FACW	25	FACW
4.		
5.		
6.		
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11.		
12.		
13.		
14.		
15.		
16.		
17.		
18.		
19.		
20.		

Total Cover: 125

Plot size 30 ft radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____

Prevalence Index:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = 0
FACW species 25	x 2 = 50
FAC species 100	x 3 = 300
FACU species _____	x 4 = 0
UPL species _____	x 5 = 0
Column Totals: 125 (A)	350 (B)

Prevalence Index = B/A = 2.8

Other Indicators of Hydrophytic Vegetation:
(Record supporting data in Remarks or on a separate sheet.)

___ Wetland Cryptogams (record species and cover at left)

___ Morphological Adaptations

___ Problematic Hydrophytic Vegetation (Explain)

Hydrophytic Vegetation Present? Yes X No _____

Remarks:
Alder thicket with herb-grass meadows.

SOIL

Sampling Point: DP-54 (#661)

Profile Description: (Describe to the depth needed to document the indicator.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-20	black						muck	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators:

- [X] Histosol or Histel (A1)
- [ ] Histic Epipedon (A2)
- [ ] Hydrogen Sulfide (A4)
- [ ] Thick Dark Surface (A12)
- [ ] Alaska Gleyed (A13)
- [ ] Alaska Redox (A14)
- [ ] Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- [ ] Alaska Color Change (TA4)[4]
- [ ] Alaska Alpine Swales (TA5)
- [ ] Alaska Redox With 2.5Y Hue
- [ ] Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- [ ] Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present.

[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes [X] No [ ]

Remarks:
Histic cryaquept inclusion within Deception-Estelle-Kichatna complex mapped by NRCS (2001).

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- [X] Surface Water (A1)
- [X] High Water Table (A2)
- [X] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Mat or Crust of Algae or Marl (B4)
- [ ] Iron Deposits (B5)
- [ ] Surface Soil Cracks (B6)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Dry-Season Water Table (C2)
- [ ] Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- [ ] Water-stained Leaves (B9)
- [ ] Drainage Patterns (B10)
- [ ] Oxidized Rhizospheres on Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Salt Deposits (C5)
- [ ] Stunted or Stressed Plants (D1)
- [ ] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4)
- [ ] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes [X] No [ ] Depth (inches): _____

Water Table Present? Yes [X] No [ ] Depth (inches): 4

Saturation Present? (includes capillary fringe) Yes [X] No [ ] Depth (inches): 0

Wetland Hydrology Present? Yes [X] No [ ]

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Adjacent to small seep.

Attachment 3

Pictures of Wetlands and Other Features
(Provided in digital format on separate CD)

Legacy Pointe Tracts A & B
Anchorage, Alaska

Forest Heights, LLC

August 2006