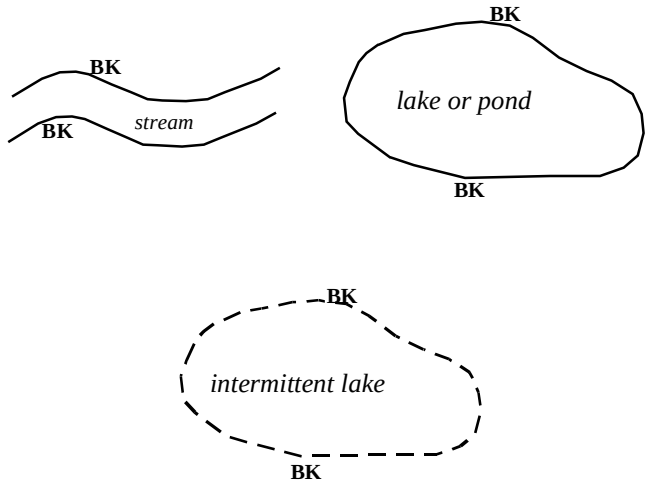
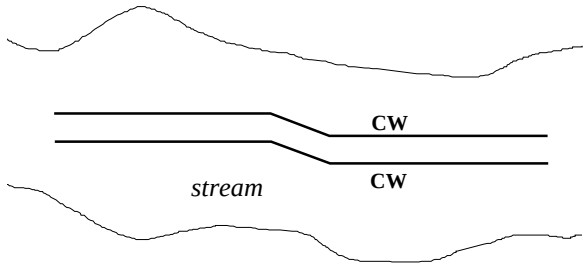
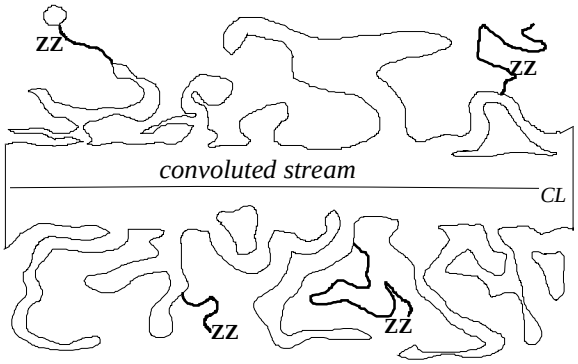
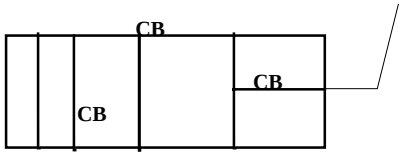
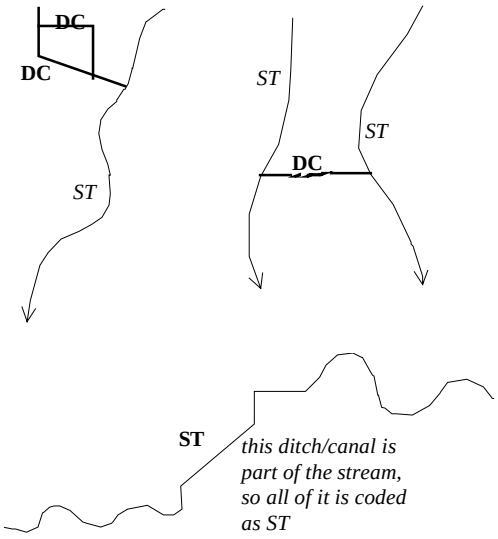
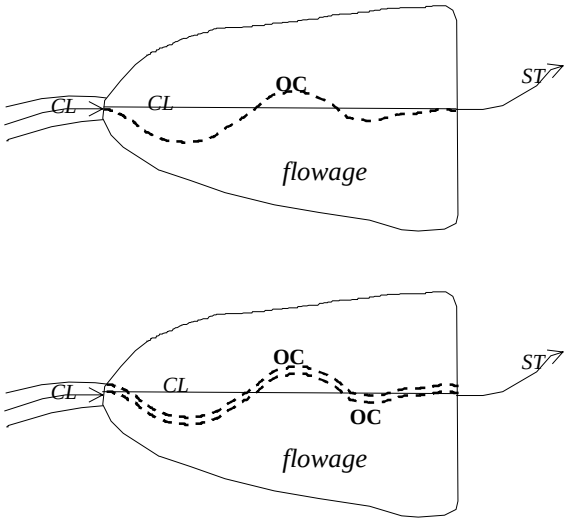
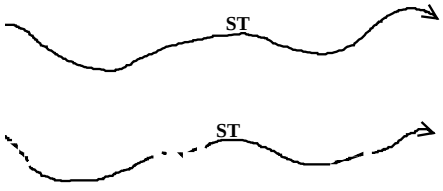
LINEAR TYPE
--VISUALLY DETERMINED--

CODE	DESCRIPTION INFORMATION	DATA CAPTURE & CODING METHOD
Hydro features (features coded based on USGS quad representations)		
BK	bank or shoreline • Any single, solid or dashed, blue line that outlines a water polygon. • Details about the type of bank are populated in the area_bnd_typ item (that item holds the two codes on either side of the arc).	Vectorize sufficient points to smoothly define feature while remaining within the raster image outlines.  (Note: See duration for quad line symbol description.)
CW	channel in water area • A dredged channel in an open water polygon	Vectorize sufficient points to smoothly define features. 
ZZ	convoluted stream • Any linear water feature that is part of what has been designated a 'convoluted stream' by the editor.	Vectorize sufficient points to smoothly define features.

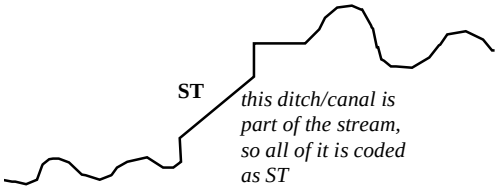
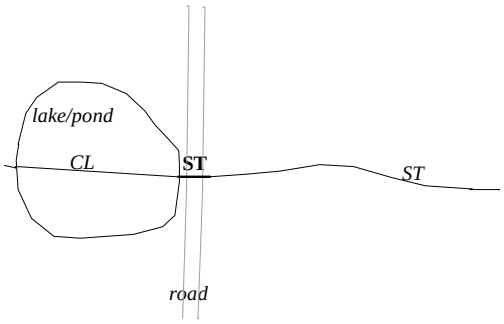
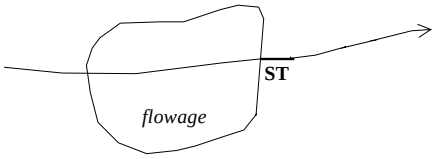
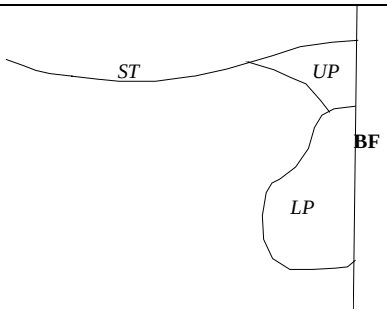
LINEAR TYPE
--VISUALLY DETERMINED--

CODE	DESCRIPTION INFORMATION	DATA CAPTURE & CODING METHOD
ZZ cont'd.	• A 'convoluted stream' is a series of inter-connected waterways and small water polygons that become so complex that adding DNR features and coding is extremely difficult. • The beginning and ending of a convoluted stream is determined by the creation of closure lines across the stream polygon. • Any linear water feature that is within the same contour of the convoluted stream and may, or may not, be connected to the convoluted stream, is to be included as part of the convoluted stream. • In a situation where two convoluted rivers meet, use the railroad line (if one exists) to delineate which river the convoluted features will be associated with.	
CB	cranberry bog waterway • Water-filled ditches surrounding and within cranberry bogs. • Identified on the quad as a series of parallel and perpendicular blue lines and labeled as a cranberry bog. • If a cranberry bog is shown on a quad as not closed off or as unconnected, we connect them as cranberry bogs, closing off the polygons, and adding labels coded as CB. Reasoning: because the connections do exist, but as culverts and, therefore, don't show up on the quads.	Vectorize sufficient points to capture the feature. 

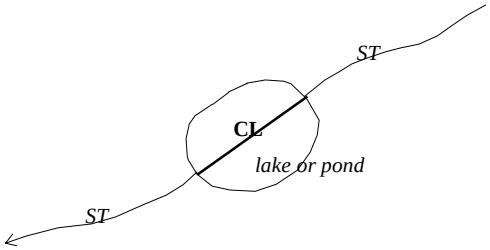
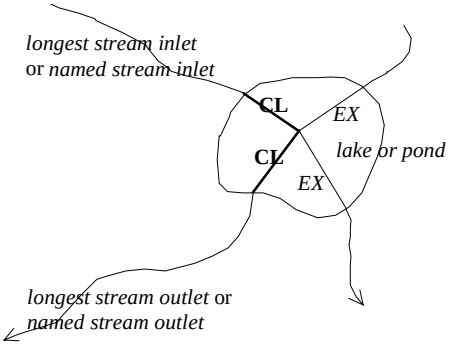
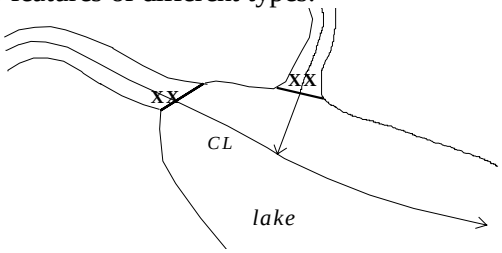
LINEAR TYPE
--VISUALLY DETERMINED--

CODE	DESCRIPTION INFORMATION	DATA CAPTURE & CODING METHOD
DC	single-line ditch or canal • Any single, solid or dashed, blue line labeled as a ditch or canal; OR any single, solid or dashed, blue line that follows man-made linear features or appears too straight to be termed a "natural" stream. • Ditch/canals may be disconnected from the hydro network or be tributary to a stream, but are not internal "channelized" parts of single line streams.	Vectorize sufficient points to smoothly define feature. 
OC	original water course • The original course or channel of a river that became submerged when a reservoir or flowage was created. • Appears on the quad as a dashed blue line running through a reservoir or flowage. • Any of the OC occurring outside the water polygon will not be captured. • The polygon that is formed from adding the original channel is coded the same as the water polygon it falls within. • The centerline does not run within the OC.	Vectorize sufficient points to smoothly define feature. 
ST	single-line stream • Any single, solid or dashed, blue line that is not labeled on a DRG or paper quad as some other linear type, does not serve as a shoreline or water area boundary of some kind, and does not fit any	Vectorize sufficient points to smoothly define feature. 

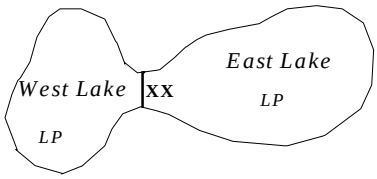
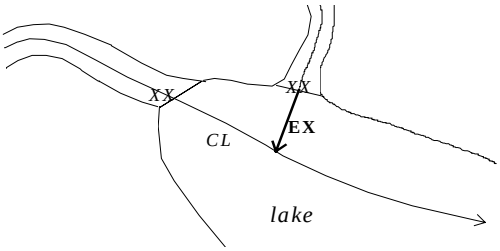
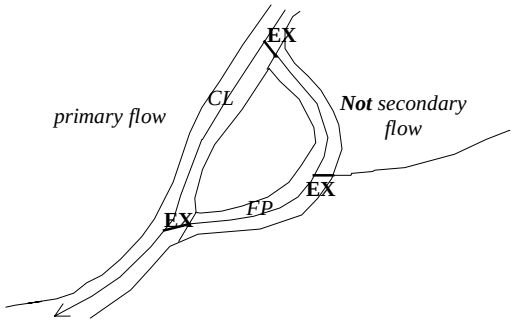
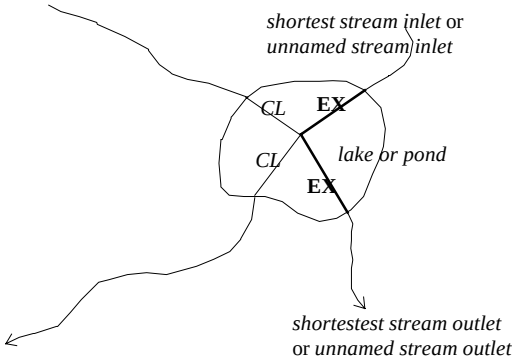
LINEAR TYPE
--VISUALLY DETERMINED--

CODE	DESCRIPTION INFORMATION	DATA CAPTURE & CODING METHOD
ST cont'd.	other decision rule. • Streams may have sections to them that are ditch/canals; however, all of that feature should just be coded as stream.	(Note: See duration for linear symbol description.) 
	• Sometimes at the intersection of water features and roads, there is no blue line indicating flow under the road, even though we are confident that there is a culvert under the road and that the stream continues. Therefore, a single-line stream is added to connect the water features, so flow is shown to continue, and an unbroken dendritic network is provided	
	• Sometimes the DRG or quad may not actually show the stream connected to the outlet part of a reservoir/flowage, so similarly to the previous situation, just add the connection and code it as ST.	
UN	unknown • Any linear feature from a USGS 7.5' quad that is not identifiable as any other linear type.	
DNR features (hydro features created and coded based on DNR decision rules)		
BF	state boundary buffer • A buffer line delineating the 1000 meter buffer around the state boundary • Hydro features up to 1000 meters will be included in the layer, and a buffer line is added to close off the upland and water polygons.	

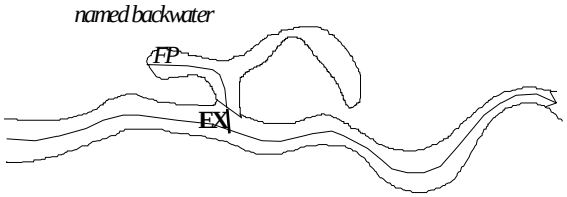
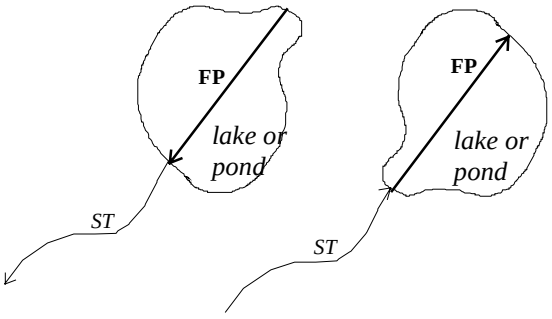
LINEAR TYPE
--VISUALLY DETERMINED--

CODE	DESCRIPTION INFORMATION	DATA CAPTURE & CODING METHOD
CL	stream centerline • Provides an unbroken dendritic network for flow modeling. • Centerlines only *approximate* the center of the open water polygon they dissect. • Centerlines are NOT intended to depict navigational paths in any way, but are created in order to model stream connectivity. • Centerlines follow the shortest and widest path through open water polygons when multiple paths are present. • When multiple streams flow into and out of a water polygon, then the centerlines are determined by looking on the DRG or quad for named streams. Named streams take precedence in determining which feature receives the CL. If none or all of the streams have names, then the CL goes to the streams that have the longest path coming in and out of the water polygon.	Heads-up digitize a line through approx. midpoint of all double-line river channels and other open water polygons through which a stream flows. Snap endpoints of centerlines to required single-line representations of stream features at the inlets and outlets.  *double-line stream*  
XX	closure line • Line segments which separate adjacent open water features of different types or names.	Heads-up digitize a "cut-off" line between adjacent open water features of different types. 

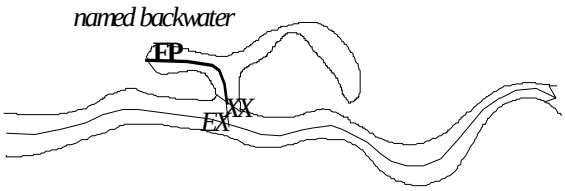
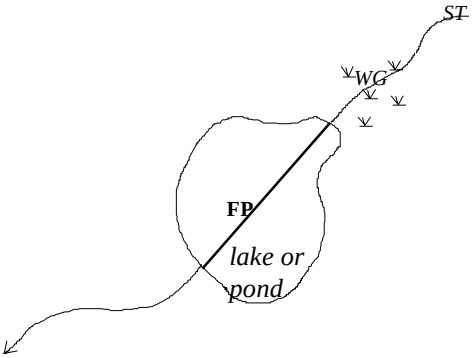
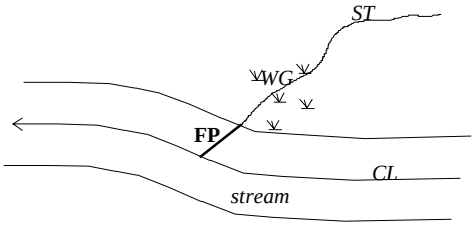
LINEAR TYPE
--VISUALLY DETERMINED--

CODE	DESCRIPTION INFORMATION	DATA CAPTURE & CODING METHOD
XX cont'd		
EX	stream extension • Provides unbroken dendritic network for flow modeling. • Occurs where a tributary stream enters an open water polygon with an established through-flow. • Similar to centerlines, but occurs at confluences of streams and, sometimes, at beginnings of streams. Always are connected to lines coded 'ST', 'DC', 'CL', or 'FP'. • This is an example of an extension connecting flow from a centerline to a flow potential, and then extending again from the flow potential. If a stream is extending into a channel, it will meet with a flow potential. This is the only case where an extension will not extend to a centerline. • When multiple streams flow into and out of a water polygon, then the extensions are determined by looking on the DRG or quad for named streams. Named streams take precedence in determining which feature receives CLs; so, if none or all of the streams have names, then the EX goes to the	Heads-up digitize a line between the mouth of the tributary stream and its 'parent' stream centerline. Snap endpoints of the stream extension to the mouth of the single-line tributary (or tributary centerline) and to the 'parent' stream centerline.   

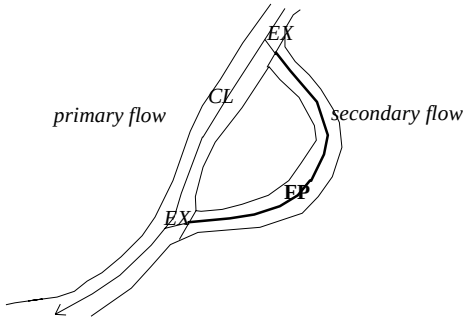
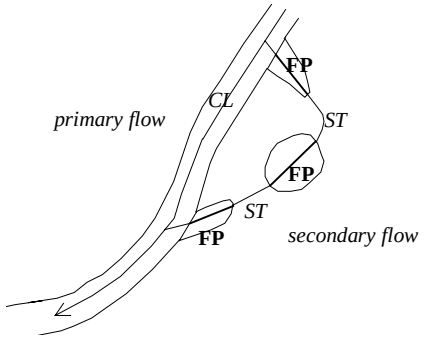
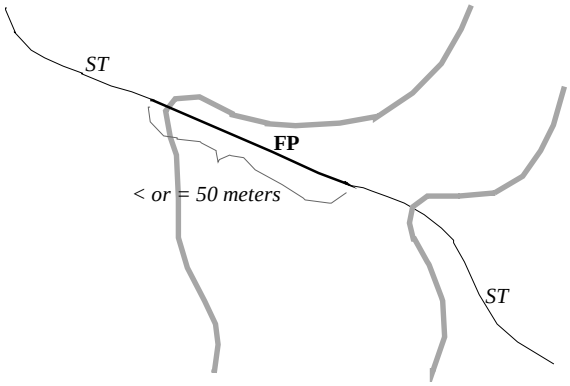
LINEAR TYPE
--VISUALLY DETERMINED--

CODE	DESCRIPTION INFORMATION	DATA CAPTURE & CODING METHOD
EX cont'd.	streams that have the shortest path coming in and out of the water polygon. • An example of an extension coming from a flow potential in a named backwater.	
FP	flow potential • Provides an unbroken dendritic network for flow modeling • Occurs where the flow is uncertain, but possible • There are 7 different cases for flow potentials to occur. 1) Occurs within an open water polygon that has an outlet but not an inlet, or an inlet but no outlet. 2) Occurs in *named* backwaters only	Below are examples of the seven possible occurrences of flow potentials: 1) Heads-up digitize a line through approx. midpoint of all open water polygons that have an outlet but not an inlet (or an inlet but no outlet). Snap endpoints to the intersection where the stream flows out and to the water polygon bank across from that intersection.  2) Heads-up digitize a line down the middle of the named backwater polygon from the "upstream" end, to the closure line. From the closure line, connect an extension to the centerline of the main stream.

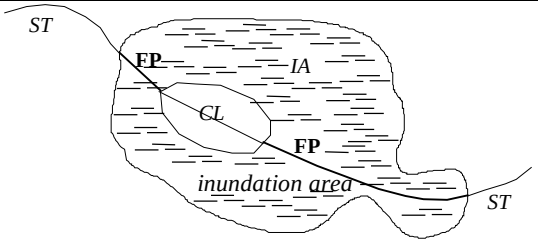
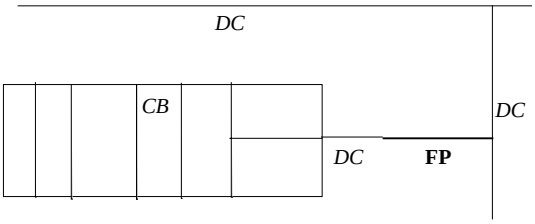
LINEAR TYPE
--VISUALLY DETERMINED--

CODE	DESCRIPTION INFORMATION	DATA CAPTURE & CODING METHOD
FP cond't.	3) Occurs where a tributary stream potentially flows through an adjacent wetland and into an open water polygon.	 3) Heads-up digitize a line between the mouth of the wetland gap and its 'parent' stream or centerline. Snap endpoint to wetland gap inlet and another flow potential or stream outlet. 
	4) Occurs in a polygonal secondary channel (similar to a centerline, except that the water polygon in which it occurs is coded as a secondary channel).	 4) Heads up digitize a line from the inlet extension in the primary channel, through the center of the secondary channel to the outlet extension in the primary channel. Be sure to snap the flow potential line to the node in the closure line.

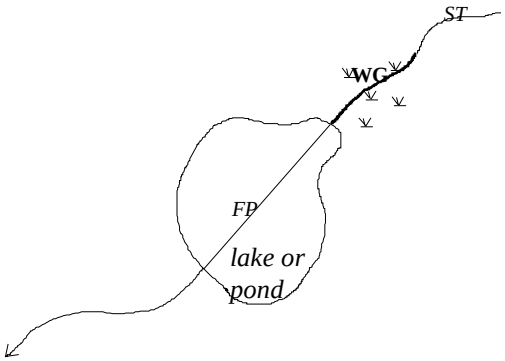
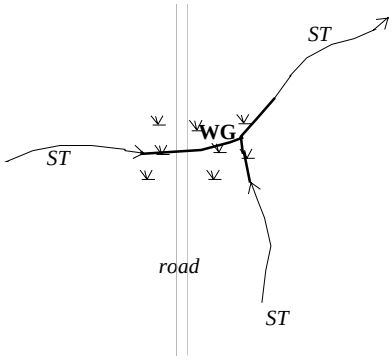
LINEAR TYPE
--VISUALLY DETERMINED--

CODE	DESCRIPTION INFORMATION	DATA CAPTURE & CODING METHOD
FP cont'd.	5) Occurs where there is a gap between two or more hydro features, and the contour lines indicate a downhill slope, but no wetlands exist between the features; a flow potential is added as long as the distance between the hydro features is equal to or less than 50 meters.	  5) Heads up digitize a line from the hydro feature to the other, following the slope and direction of the contour lines.
	6) Connects through Inundation Areas	 6) Heads-up digitize a line from the single-line stream coming into the inundation area to the edge of the lake/pond.

LINEAR TYPE
--VISUALLY DETERMINED--

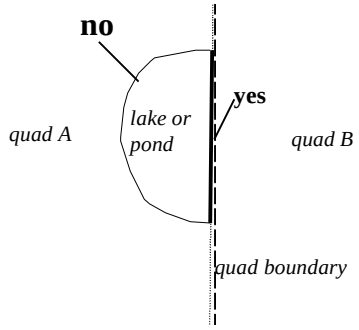
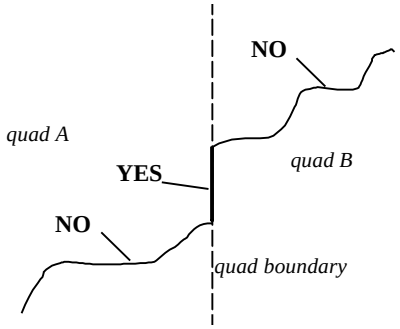
CODE	DESCRIPTION INFORMATION	DATA CAPTURE & CODING METHOD
FP cont'd	7) Connects cranberry bog channels to main channels and the dendritic network	 7) Heads-up digitize a line from a cranberry bog channel to one of the main channels that is a part of the network. 

LINEAR TYPE
--VISUALLY DETERMINED--

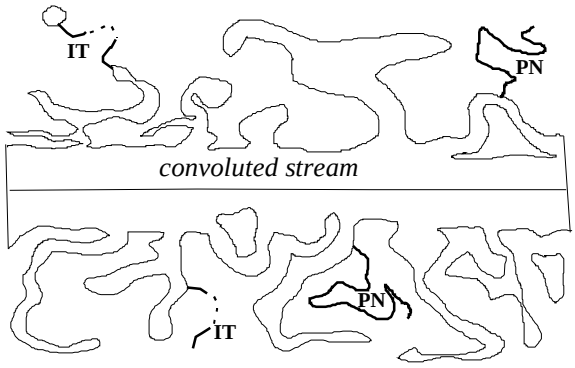
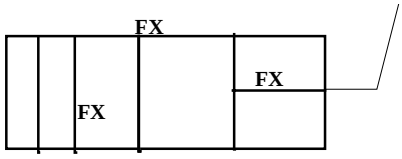
CODE	DESCRIPTION INFORMATION	DATA CAPTURE & CODING METHOD
WG	wetland gap connector • Provides an unbroken dendritic network for flow modeling. • Connects two water features that are separated by a wetland but appear to have the same flow path. • Can pass over contours as long as the contours indicate downhill flow. • There is no distance limit for adding wetland gap connectors. • If a road passes through a wetland, and streams flow in and out of the wetland area, flow probably exists through a culvert; therefore, add the wetland gap connector across the road	Heads-up digitize a line between water features that are separated by a wetland and are within the same contour line. Snap endpoints to single-line streams or flow potential lines within open water polygons.  

QUADLINE
--VISUALLY DETERMINED--

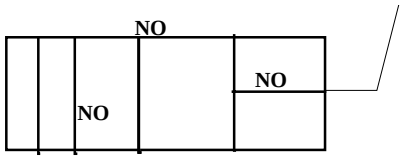
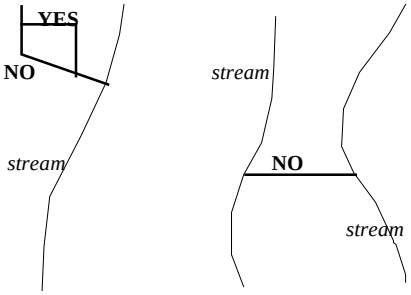
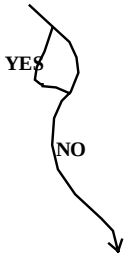
LTYP	DESCRIPTION INFORMATION	CODING METHOD
Hydro features (features coded based on USGS quad representations)		
Any	YES or NO	Heads-up digitize a line that closes off water polygons that

	▪ YES closes off water polygons at quadrangle boundaries when the water polygons may not match from one quad to the next. • added during the quad edgematching process ▪ NO for all other line work.	may not continue onto the next quad, or if the water polygons do not match. Any line that meets these criteria is given the LTYP of the arcs that make up the rest of the polygon and coded YES for the QUADLINE item.  

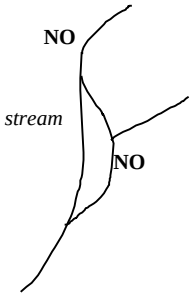
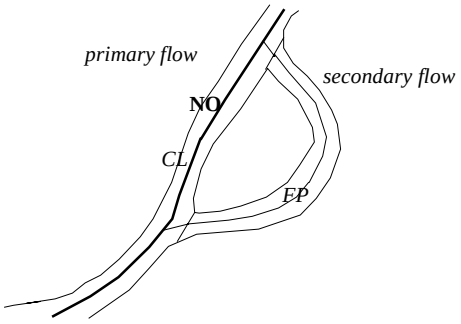
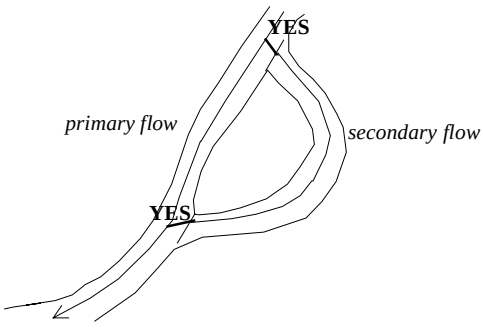
LINEAR DURATION (BY LINEAR TYPE)
--SOME AUTOMATED, SOME VISUALLY DETERMINED--

LTYPE	DESCRIPTION INFORMATION	CODING METHOD
Hydro features (features coded based on USGS quad representations)		
BK	NA (not applicable) • VISUALLY DETERMINED/AUTOMATED • Initially, banks are visually determined, with a duration of either IT or PN. Those duration codes are used to populate the polygon in which those arcs surround. Then, in an automated process, the bank durations are coded as NA.	
CW	NA (not applicable) • AUTOMATED	
ZZ	IT or PN (intermittent or perennial) • VISUALLY DETERMINED	
CB	FX (fluctuating) • AUTOMATED	

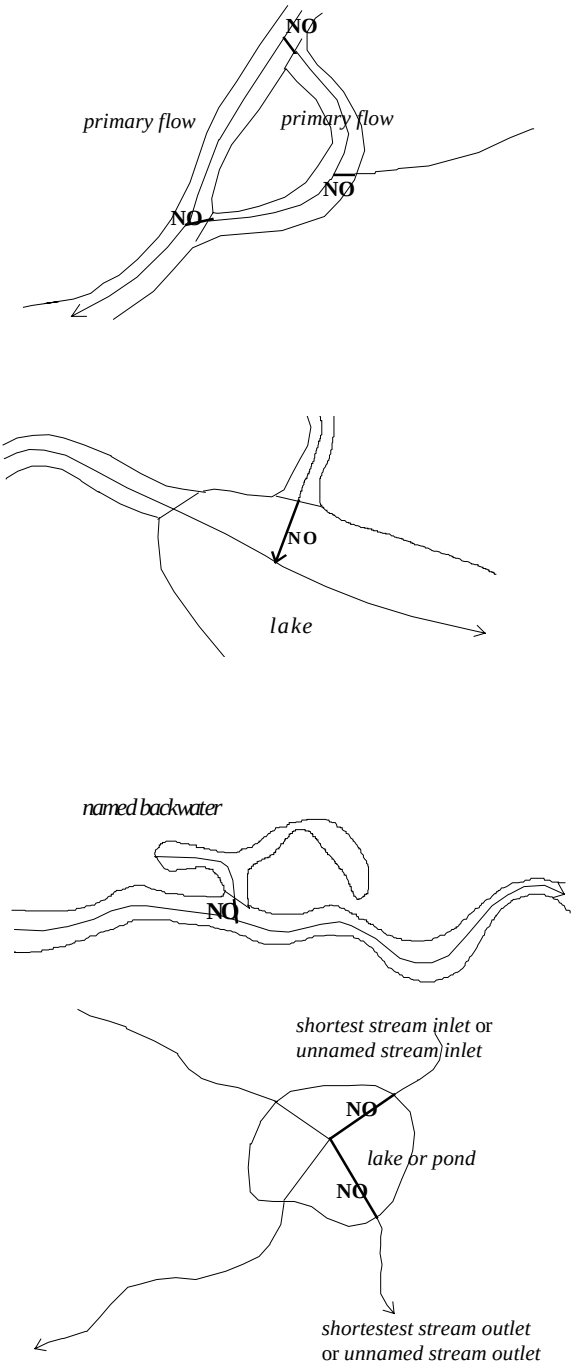
SECONDARY FLOW (BY LINEAR TYPE)
--SOME AUTOMATED, SOME VISUALLY DETERMINED--

LTYPE	DESCRIPTION INFORMATION	VECTORIZING/DIGITIZING & CODING METHOD
Hydro features (features coded based on USGS quad representations)		
BK	NA (not applicable) • AUTOMATED	
CW	NA • AUTOMATED	
ZZ	NA (not applicable) • AUTOMATED	
CB	NO • AUTOMATED	
DC	YES or NO • VISUALLY DETERMINED • When a ditch/canal strays from the main flow and then re-connects, code the ditch/canal as secondary flow	
OC	NA (not applicable) • AUTOMATED	
ST	YES or NO • VISUALLY DETERMINED • When a stream strays from the main flow and then re-connects, code the stream as secondary flow	

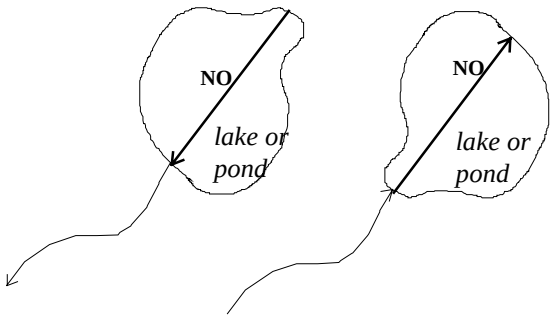
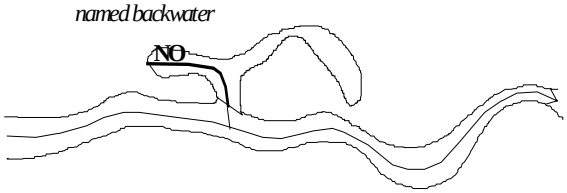
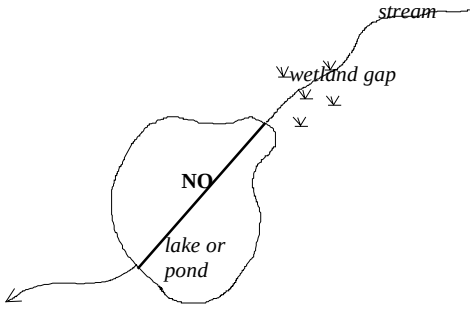
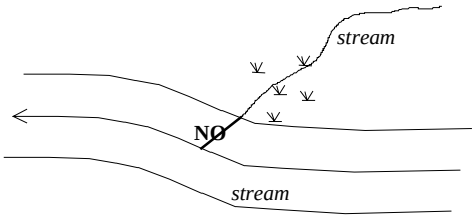
SECONDARY FLOW (BY LINEAR TYPE)
--SOME AUTOMATED, SOME VISUALLY DETERMINED--

LTYPE	DESCRIPTION INFORMATION	VECTORIZING/DIGITIZING & CODING METHOD
ST cont'd	• If another stream empties into the "secondary channel", it is no longer considered a secondary channel, even if flow obviously comes off the main channel and re-enters main channel	
UN	NA (not applicable) • AUTOMATED	
DNR features (hydro features coded based on DNR decision rules)		
BF	NA (not applicable) • AUTOMATED	
CL	NO • AUTOMATED • If a connectivity feature is within a secondary flow, that feature will always be a Flow Potential. A centerline will never fall within a secondary flow, and, therefore, is always coded NO.	
XX	NA (not applicable) • AUTOMATED	
EX	YES or NO • VISUALLY DETERMINED • YES when extending to and from a flow potential in a secondary flow stream • NO when there is a new stream entering the secondary channel. If another stream empties into the "secondary channel", it is no longer considered a secondary channel, even if flow obviously comes off the main channel and re-enters main channel	

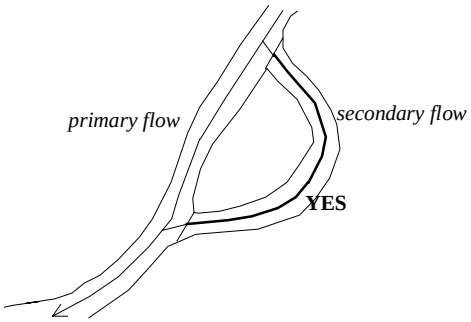
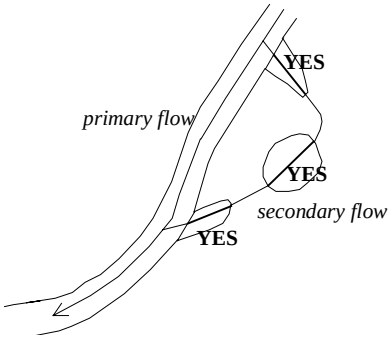
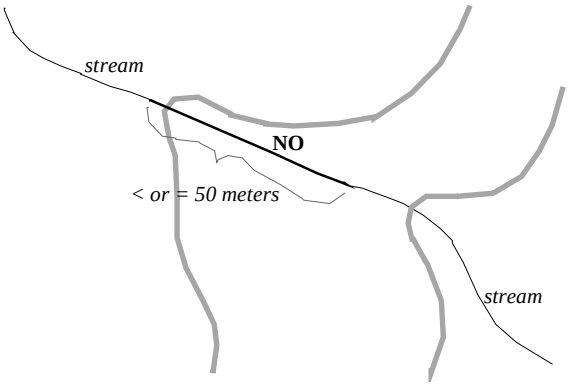
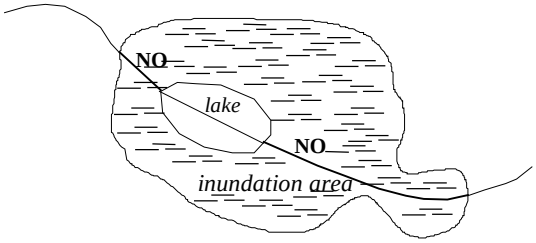
SECONDARY FLOW (BY LINEAR TYPE)
--SOME AUTOMATED, SOME VISUALLY DETERMINED--

LTYPE	DESCRIPTION INFORMATION	VECTORIZING/DIGITIZING & CODING METHOD
EX cont'd.	• NO when extending from a non-secondary flow stream • NO when extending from a named backwater • NO when extending from or extending to non-secondary flow streams	
FP	YES or NO • VISUALLY DETERMINED • NO when a flow potential is	

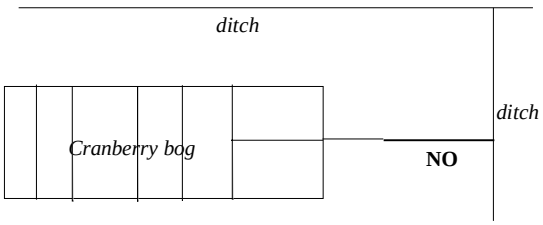
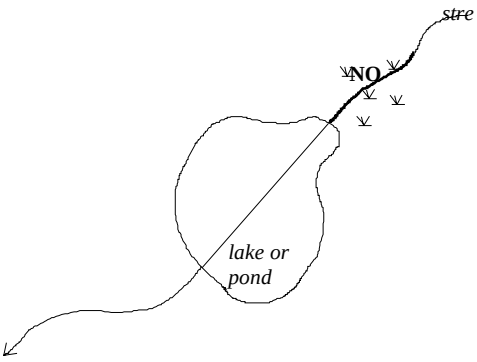
SECONDARY FLOW (BY LINEAR TYPE)
--SOME AUTOMATED, SOME VISUALLY DETERMINED--

LTYPE	DESCRIPTION INFORMATION	VECTORIZING/DIGITIZING & CODING METHOD
FP cont'd.	within a water poly with an outlet and no inlet, or with an inlet and no outlet	
	• NO when a flow potential is within named backwater	
	• NO when a flow potential is followed by a wetland gap	
		

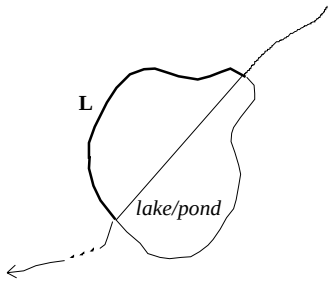
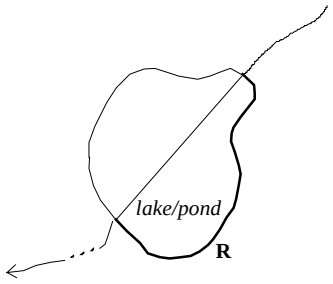
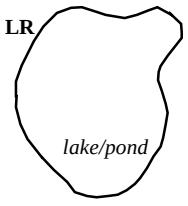
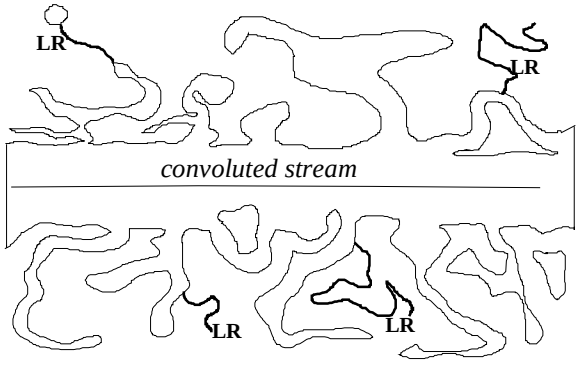
SECONDARY FLOW (BY LINEAR TYPE)
--SOME AUTOMATED, SOME VISUALLY DETERMINED--

LTYPE	DESCRIPTION INFORMATION	VECTORIZING/DIGITIZING & CODING METHOD
FP cont'd.	• YES when a flow potential falls within a secondary flow • NO when a flow potential occurs outside of a water polygon • NO when running through inundation areas • NO when connecting cranberry bog channels to main channels	   

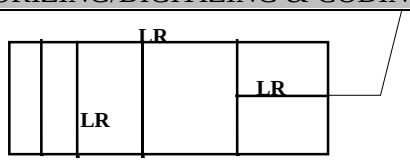
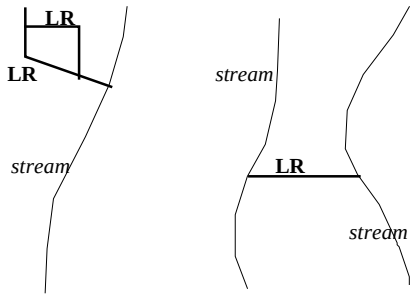
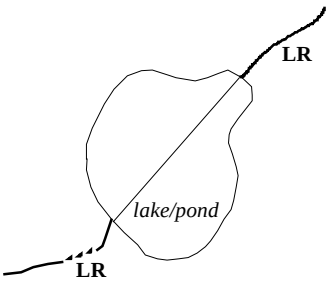
SECONDARY FLOW (BY LINEAR TYPE)
--SOME AUTOMATED, SOME VISUALLY DETERMINED--

LTYPE	DESCRIPTION INFORMATION	VECTORIZING/DIGITIZING & CODING METHOD
		
WG	NO • AUTOMATED • wetland gaps do not have secondary flow	

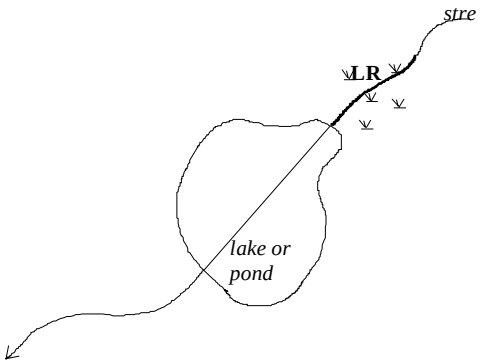
LEFT/RIGHT BANK (BY LINEAR_TYPE)
--ALL AUTOMATED--

LTYPE	DESCRIPTION INFORMATION	VECTORIZING/DIGITIZING & CODING METHOD
Hydro features (features coded based on USGS quad representations)		
BK	L,R, or LR (left, right, or left/right) • L or R: Banks of all water polygons with transport features running through them	 
	• LR: Any water polygon that does not have a transport feature running through it (i.e., those water polygons that are landlocked and do not have a centerline or flow potential line)	
CW	NA	
ZZ	LR	

LEFT/RIGHT BANK (BY LINEAR_TYPE)
--ALL AUTOMATED--

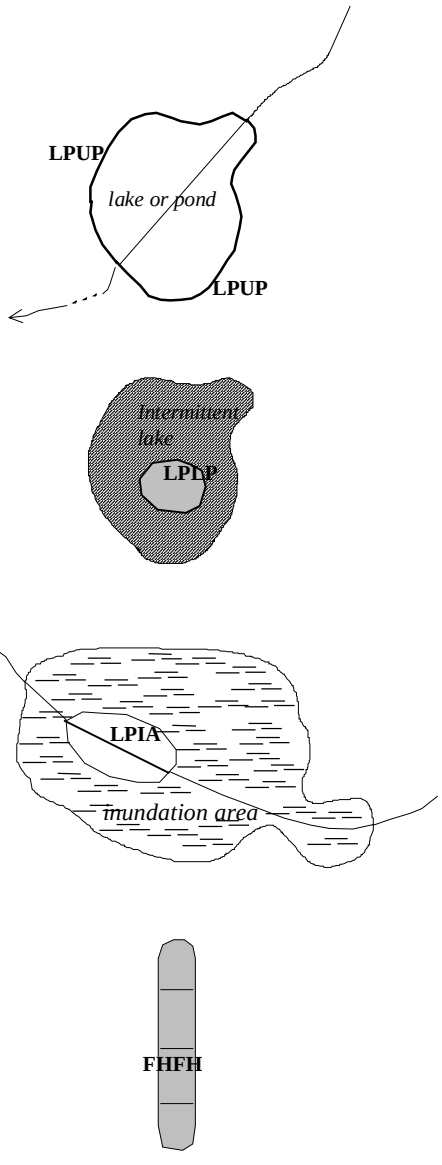
LTYPE	DESCRIPTION INFORMATION	VECTORIZING/DIGITIZING & CODING METHOD
CB	LR	
DC	LR	
OC	NA	
ST	LR	
UN	NA	
DNR features (hydro features coded based on DNR decision rules)		
BF	NA	
CL	NA	
XX	NA	
EX	NA	
FP	NA	
QU	NA	

LEFT/RIGHT BANK (BY LINEAR_TYPE)
--ALL AUTOMATED--

LTYPE	DESCRIPTION INFORMATION	VECTORIZING/DIGITIZING & CODING METHOD
WG	LR	

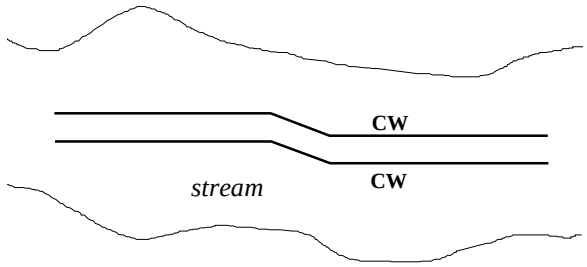
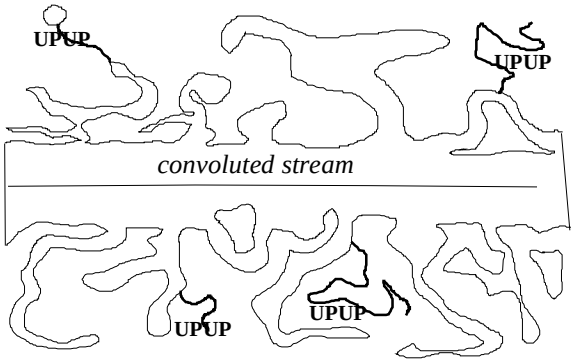
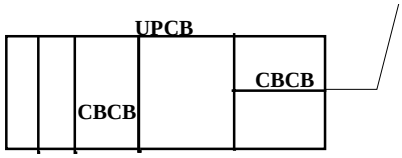
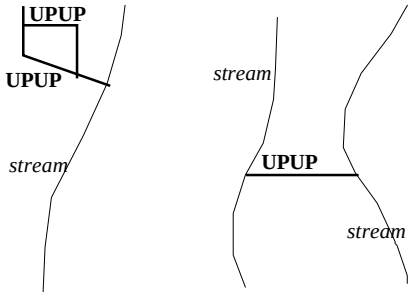
AREA BOUNDARY TYPE (BY LINEAR_TYPE)
--ALL AUTOMATED--

The area boundary type code is a concatenation of the poly_type codes detailed on either side of a line. Every line has an area_bnd_type code. *Below is one example of an area_bnd_type for every linear_type*

LTYPE	DESCRIPTION INFORMATION	VECTORIZING/DIGITIZING & CODING METHOD
Hydro features (features coded based on USGS quad representations)		
BK	UPLP, LPLP, LPIA, FHFH, RFUP, ISRF, IAUP, IAIS • A lake/pond is on one side of the line, and an upland is on the other side. • An inundation area is on one side of the line, and an island or upland on the other. • A reservoir/flowage is on one side of the line, and an island or upland on the other.	

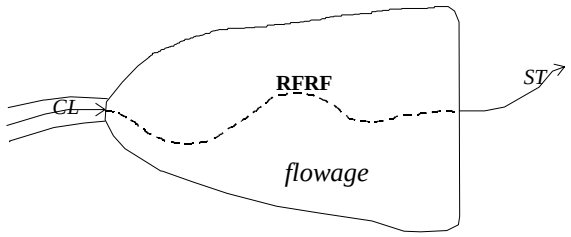
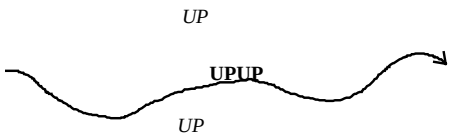
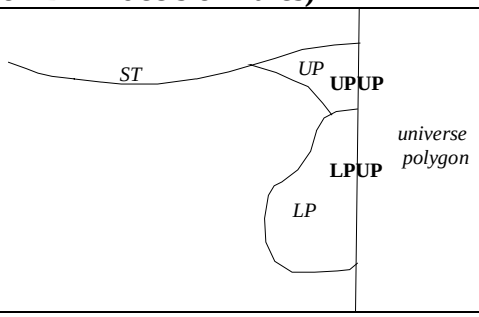
AREA BOUNDARY TYPE (BY LINEAR_TYPE)
--ALL AUTOMATED--

The area boundary type code is a concatenation of the poly_type codes detailed on either side of a line. Every line has an area_bnd_type code. *Below is one example of an area_bnd_type for every linear_type*

LTYPE	DESCRIPTION INFORMATION	VECTORIZING/DIGITIZING & CODING METHOD
CW	STST • The stream is on both sides of the channel	
ZZ	UPUP or UPZZ • Uplands are on both sides of the line.	
CB	UPCB or CBCB • A cranberry bog polygon is on one side of the line, and an upland is on the on the other side of the line	
DC	UPUP or ISIS • Uplands are on both sides of the line • Ditch running through an island	

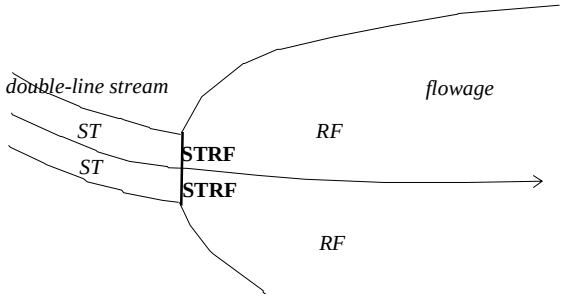
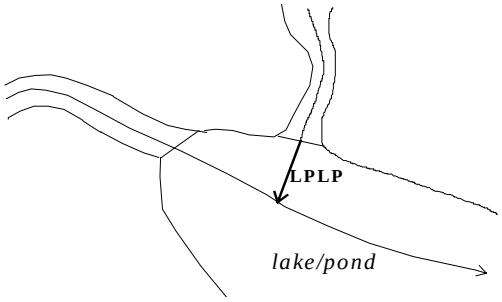
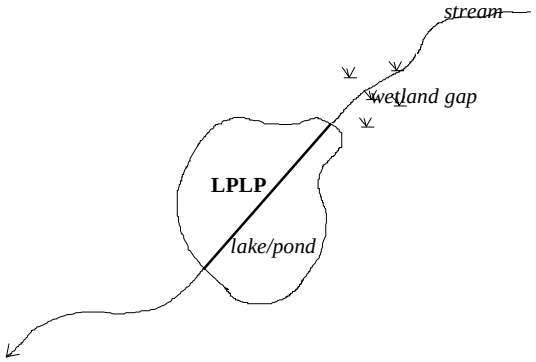
AREA BOUNDARY TYPE (BY LINEAR_TYPE)
--ALL AUTOMATED--

The area boundary type code is a concatenation of the poly_type codes detailed on either side of a line. Every line has an area_bnd_type code. *Below is one example of an area_bnd_type for every linear_type*

LTYPE	DESCRIPTION INFORMATION	VECTORIZING/DIGITIZING & CODING METHOD
OC	RFRF • Reservoir/flowage polygons are on both sides of the line.	
ST	UPUP or ISIS • Uplands are on both sides of the line. • One large island on both sides of the line.	
UN	UPUP (most likely) • Can be almost any combination, but will probably be a single line that is undeterminable, therefore having uplands on both sides	
DNR features (hydro features coded based on DNR decision rules)		
BF	UPUP or UPLP, etc. • Can be many combinations, but UP will always be in every combination • The universe polygon will be considered an upland polygon	
CL	STST • Stream polygons are on both sides of the line.	

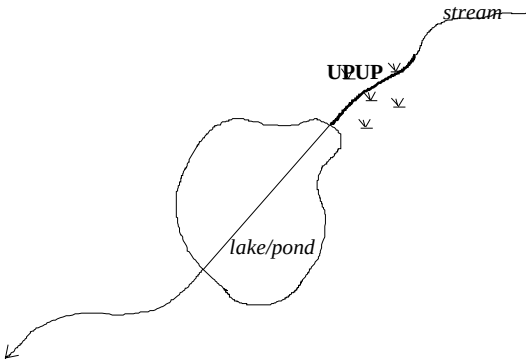
AREA BOUNDARY TYPE (BY LINEAR_TYPE)
--ALL AUTOMATED--

The area boundary type code is a concatenation of the poly_type codes detailed on either side of a line. Every line has an area_bnd_type code. *Below is one example of an area_bnd_type for every linear_type*

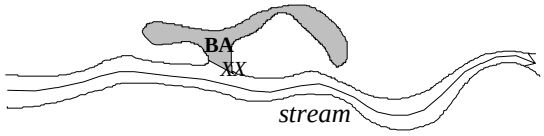
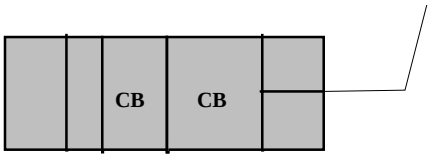
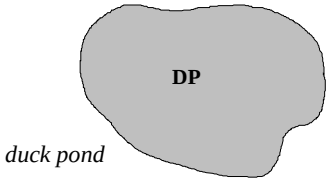
LTYPE	DESCRIPTION INFORMATION	VECTORIZING/DIGITIZING & CODING METHOD
XX	STRF, BADC, LPRF, RFRF, STST, LPLP, STLP, STBA, BARF, DCST, DCLP, RFDC, DCBA • A stream polygon is on one side of the line, and a reservoir/ flowage is on the other side of the line. • Many other situations involving closure lines.	
EX	LPLP, STST, RFRF, DCDC • A lake/pond polygon is on both sides of the line. • A double-line stream on both sides of the line. • A reservoir/flowage polygon on both sides of the line. • A ditch/channel polygon on both sides of the line.	
FP	LPLP, BABA, STST, UPUP, ISIS, DCDC • A lake/pond polygon is on both sides of the line. • A double-line stream on both sides of the line. • A NAMED backwater polygon on both sides of the line. • A ditch/channel polygon on both sides of the line. • An upland (universal) polygon on both sides of the line. • An island polygon on both sides of the line.	

AREA BOUNDARY TYPE (BY LINEAR_TYPE)
--ALL AUTOMATED--

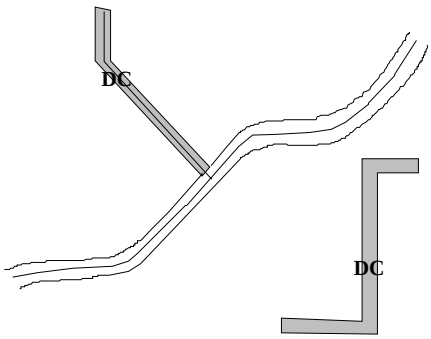
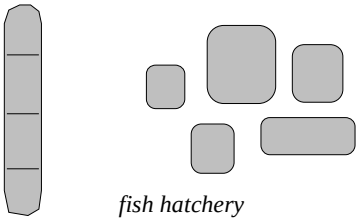
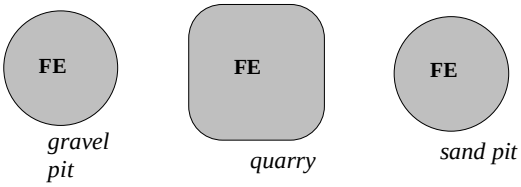
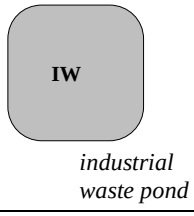
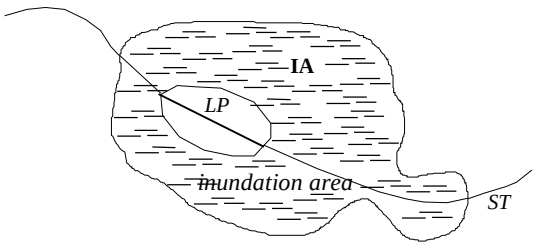
The area boundary type code is a concatenation of the poly_type codes detailed on either side of a line. Every line has an area_bnd_type code. *Below is one example of an area_bnd_type for every linear_type*

LTYPE	DESCRIPTION INFORMATION	VECTORIZING/DIGITIZING & CODING METHOD
WG	UPUP • Uplands are on both sides of the line.	

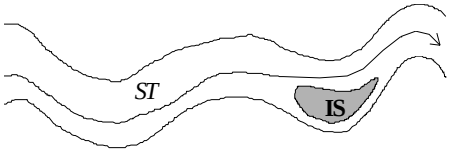
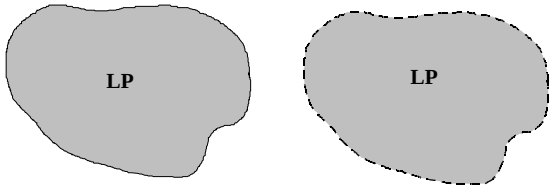
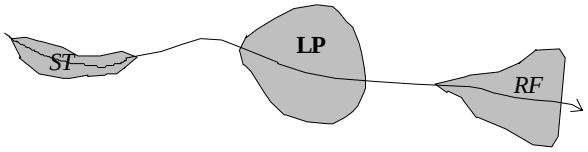
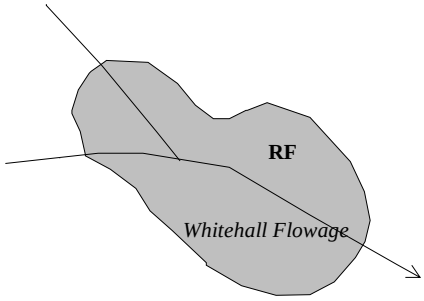
POLYGON TYPE
--ALL VISUALLY DETERMINED--

CODE	DESCRIPTION INFORMATION	CODING METHOD
Hydro features (features coded based on USGS quad representations)		
BA	backwater • Open water polygons that are a part of double-line streams, but are 'closed off' (using a closure line) from the main channel because they follow most of the following four criteria: 1. if it labeled a backwater, slough, or bayou; 2. if it does not continue the through-flow for any part of the main river; 3. if it extends away from the main river channel at least as far as the main channel is wide; 4. if it does not serve as the point of entry for any tributary of the main river.	
CB	cranberry bog • Will appear on the quad as small squared-off polygons surrounded by water-filled ditches, or as a polygon labeled cranberry bog • Cranberry bog polygons are generally NOT shown as blue polygons on the quad.	
DP	duck pond • Any water polygon labeled on a DRG or paper quad as a duck pond	

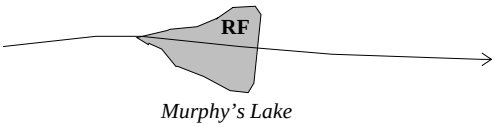
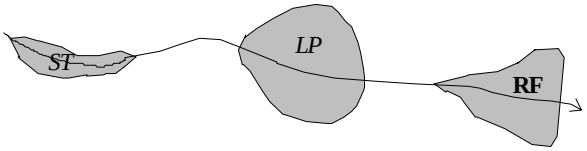
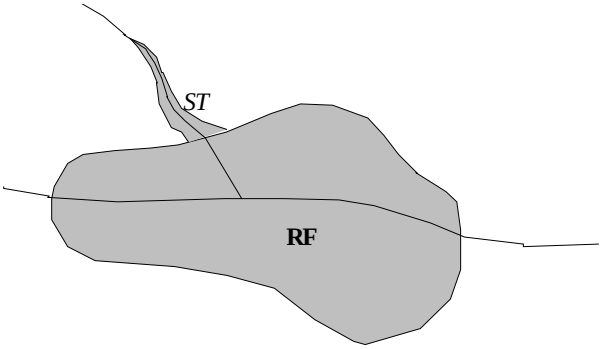
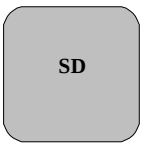
POLYGON TYPE
--ALL VISUALLY DETERMINED--

CODE	DESCRIPTION INFORMATION	CODING METHOD
DC	ditch/canal • Any polygon labeled on a DRG or paper quad as a ditch or canal, or any polygon defined by blue lines that follows man-made linear features or appears too straight to be termed a "natural" stream. • It is either disconnected from the dendritic network or a connected tributary of a stream, but it is not 'part of' a double-line stream.	
FH	fish hatchery or farm • Any water polygon labeled on a DRG or paper quad as a fish hatchery.	
FE	flooded excavation • Any water polygon labeled on a DRG or paper quad as a gravel pit, quarry or mine site. • An excavation found at mining sites that has filled with water	
IW	industrial waste pond • Any open water polygon that is labeled on a DRG or paper quad as industrial waste pond • Contains waste from industrial site	
IA	inundation area • An area near water which is subject to flooding and labeled as an inundation area.	

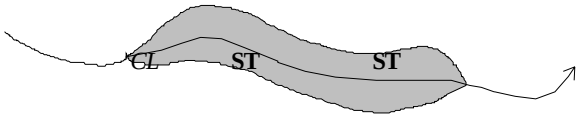
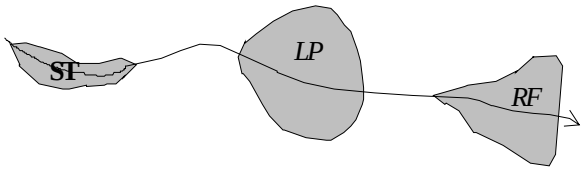
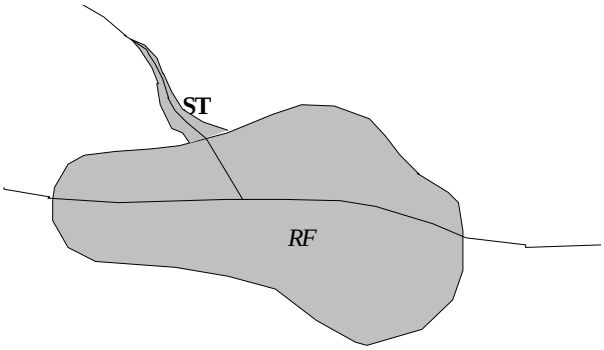
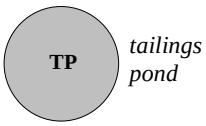
POLYGON TYPE
--ALL VISUALLY DETERMINED--

CODE	DESCRIPTION INFORMATION	CODING METHOD
IS	island • Any 'land' polygon that is labeled on a DRG or paper quad as an island, or any unlabeled, upland or forested 'land' polygon that is completely surrounded by open water polygons.	
LP	lake or pond • Any open water polygon that is labeled on a DRG or paper quad as a lake or pond, or any open water polygon that is not labeled as any other type of hydrography polygon feature and does not fit any other decision rules. (i.e. the default water polygon type). • When deciding to label a feature either as a double-line stream, a lake/pond, or reservoir/flowage, closely examine the width of the feature. If an obvious widening occurs in the water feature, and it does not fit the description of a reservoir/flowage, then label as a lake/pond. When in doubt between an ST and an LP, then call it an LP.	 (Note: See duration for quad line symbol description.) 
RF	reservoir or flowage • Any open water polygon that is labeled on a DRG or paper quad as a reservoir or flowage, or any open water polygon with a dam, lock, sluice gate or other structure controlling its water level. • Usually is a polygon that has a flattened appearance at the downstream end.	

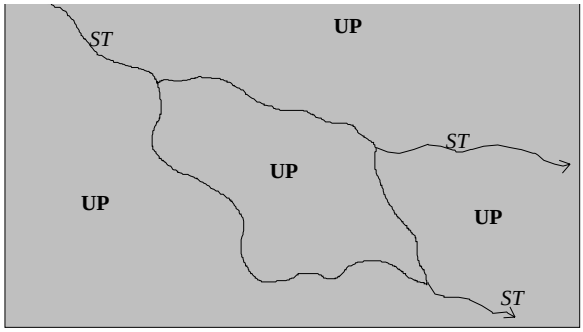
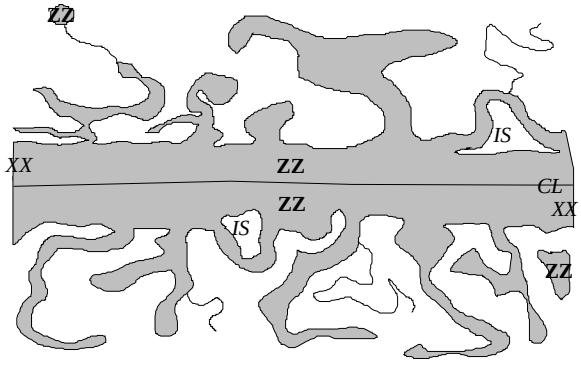
POLYGON TYPE
--ALL VISUALLY DETERMINED--

CODE	DESCRIPTION INFORMATION	CODING METHOD
RF cont'd.	• Even though on the DRG or quad a water feature may be named a lake, if the feature fits the RF description, code it as an RF.	 *Murphy's Lake*
	• When deciding to code a feature either as a double-line stream, a lake/pond, or reservoir/flowage, closely examine the width of the feature. If an obvious widening occurs in the water feature, and it does not fit the description of a reservoir/flowage, then code as a lake/pond. When in doubt between an ST or an LP, then call it an LP.	
	• If a double-line stream is entering into a reservoir/flowage, sometimes it is difficult to determine whether the widening part of the stream is actually part of the RF or not. Sometimes this really depends on how large the stream and RF are. A basic rule of thumb would be to imagine yourself in a boat on the different parts of the water features: where do you think you are - in the stream or in the reservoir? The answer is the feature code.	
SD	PN (perennial)	 *sewage disposal pond*

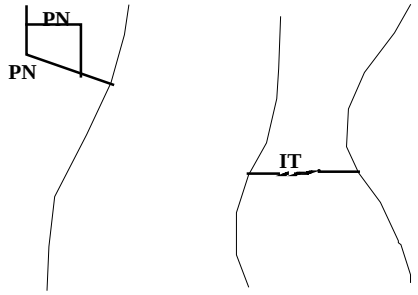
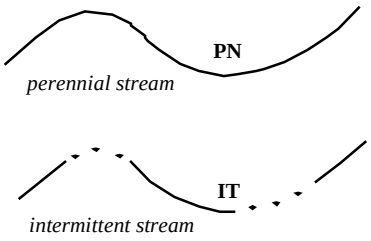
POLYGON TYPE
--ALL VISUALLY DETERMINED--

CODE	DESCRIPTION INFORMATION	CODING METHOD
ST	double-line stream • Any thin, open water polygon that defined by solid blue lines that is not labeled on a DRG or paper quad as some other waterbody type, and does not fit any other decision rule. • When deciding to code a feature either as a double-line stream, a lake/pond, or reservoir/flowage, closely examine the width of the feature. If an obvious widening occurs in the water feature, and it does not fit the description of a reservoir/flowage, then code as a lake/pond. When in doubt between an ST and an LP, then call it an LP. • If a double-line stream is entering into a reservoir/flowage, sometimes it is difficult to determine whether the widening part of the stream is actually part of the RF or not. Sometimes this really depends on how large the stream and RF are. A basic rule of thumb would be to imagine yourself in a boat on the different parts of the water features: where do you think you are - in the stream or in the reservoir? The answer is the feature code.	  
TP	tailings pond • Any open water polygon that is labeled as a tailings pond. • An excavation found at mining site that has filled with industrial waste.	

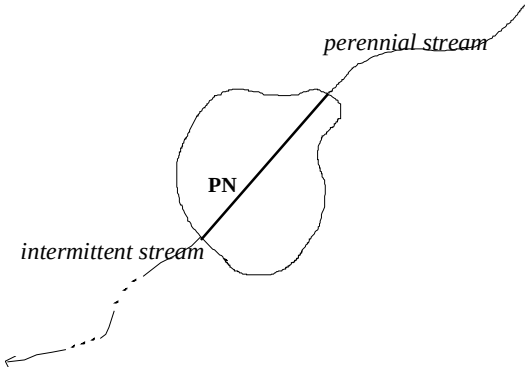
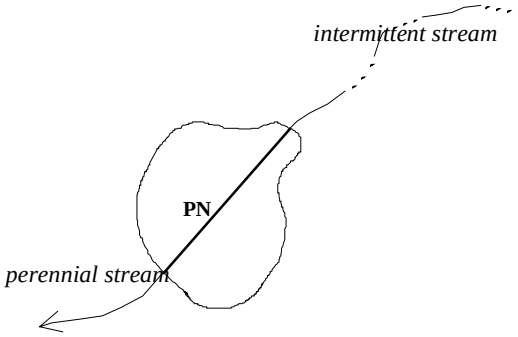
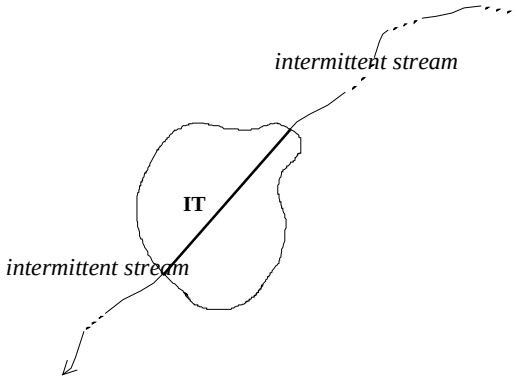
POLYGON TYPE
--ALL VISUALLY DETERMINED--

CODE	DESCRIPTION INFORMATION	CODING METHOD
UN	unknown • Any polygonal feature that is unidentifiable from the 7.5 minute USGS quad.	
UP	upland • All 'land' polygons other than islands, cranberry bogs or inundation areas.	
DNR features (hydro features coded based on DNR decision rules)		
ZZ	convoluted stream • A series of inter-connected waterways and small water polygons that become so complex that adding DNR features and coding is difficult. • All polygons within the convoluted area are coded as such, no matter what the features would normally be coded. • The beginning and ending of a convoluted stream is determined by closure lines separating the regular stream polygons from the convoluted stream area. • Any water polygon within the same contour of the convoluted stream, whether connected by other arcs or not, is still to be coded as convoluted. This water feature is somewhat subjective.	

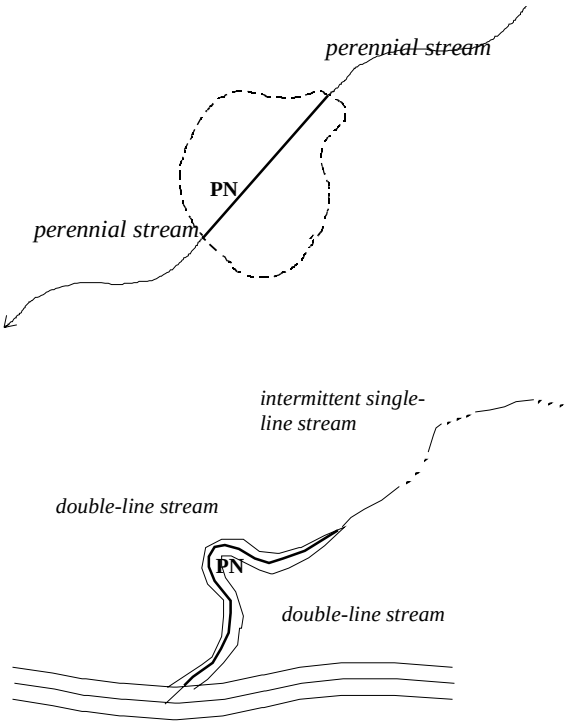
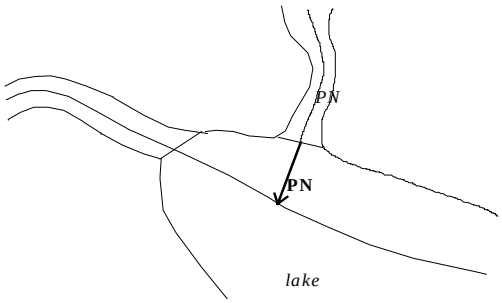
POLYGON TYPE
--ALL VISUALLY DETERMINED--

CODE	DESCRIPTION INFORMATION	CODING METHOD
DC	IT or PN (intermittent or perennial) • VISUALLY DETERMINED	
OC	NA (not applicable) • AUTOMATED	
ST	IT or PN (intermittent or perennial) • VISUALLY DETERMINED	
UN	NA (not applicable) • AUTOMATED	
DNR features (hydro features coded based on DNR decision rules)		
BF	NA (not applicable) • AUTOMATED	

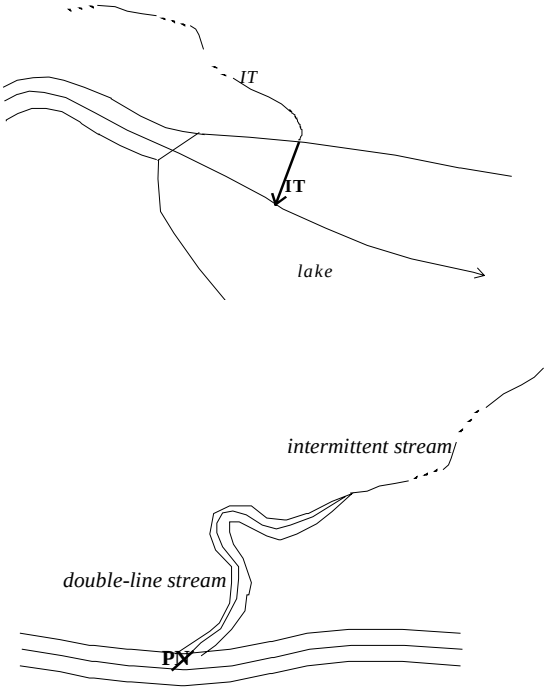
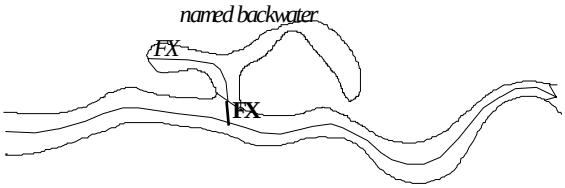
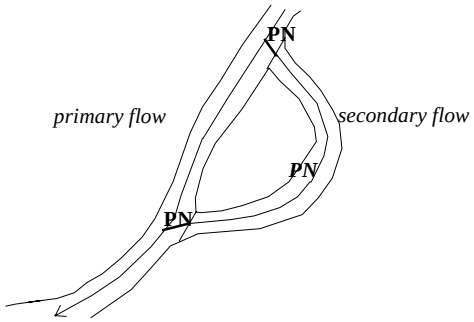
POLYGON TYPE
--ALL VISUALLY DETERMINED--

CODE	DESCRIPTION INFORMATION	CODING METHOD
CL	IT or PN (intermittent or perennial) • AUTOMATED • Perennial takes precedence	
	• If the inlet stream is perennial and the outlet stream is intermittent, the centerline is perennial	
CL cont'd.	• If the inlet stream is intermittent and the outlet stream is perennial, the centerline is perennial	
	• If the inlet and outlet streams are both intermittent, then the centerline is intermittent.	

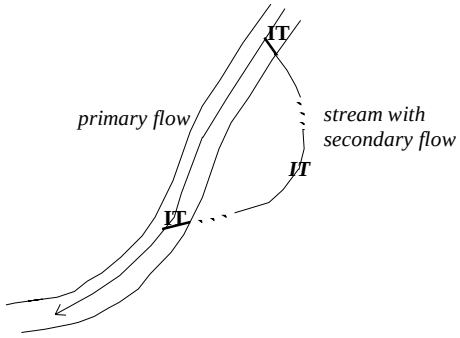
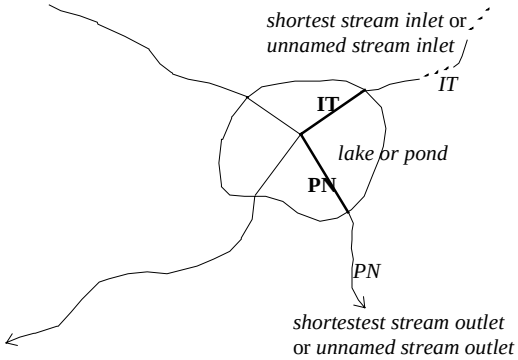
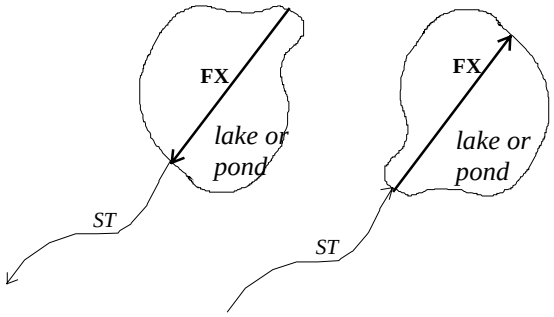
POLYGON TYPE
--ALL VISUALLY DETERMINED--

CODE	DESCRIPTION INFORMATION	CODING METHOD
CL cont'd	• Coding of the centerline is always determined by the duration of inlet and outlet streams, and follows the rules of perennial taking precedence, EVEN IF the water polygon that the stream is running through is intermittent. • If an intermittent stream becomes a double-line stream, then the centerline is perennial.	
XX	NA (not applicable) • AUTOMATED	
EX	IT or PN (intermittent or perennial) • AUTOMATED • PN when the extension stems from a perennial stream. • IT when an extension stems from an intermittent stream.	

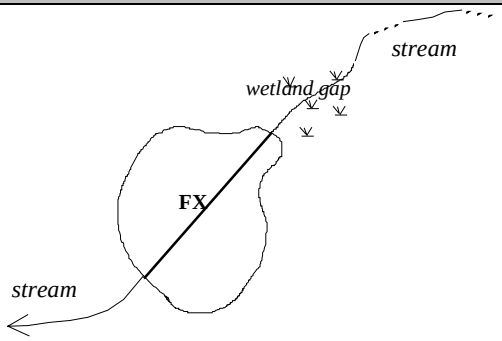
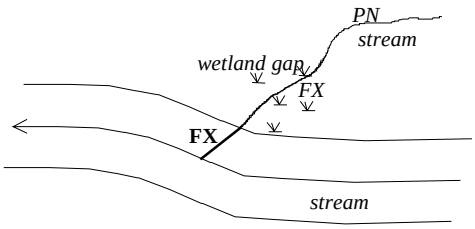
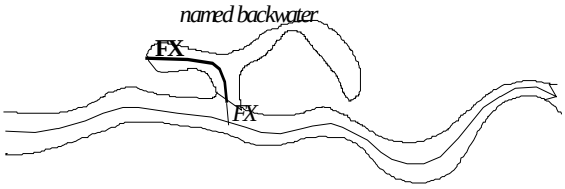
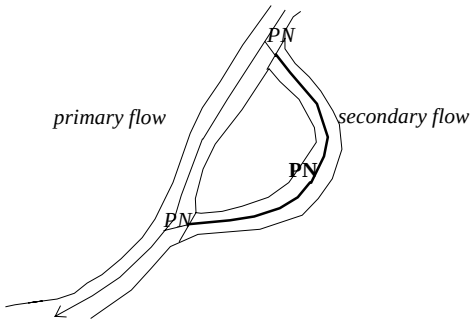
POLYGON TYPE
--ALL VISUALLY DETERMINED--

CODE	DESCRIPTION INFORMATION	CODING METHOD
EX cont'd	• PN when an extension follows an intermittent stream but flows into a double-line stream (which, in itself, is PN).	
	• FX when an extension stems from a flow potential in a named backwater.	
	• PN when an extension goes into and stems from a perennial, secondary flow potential.	

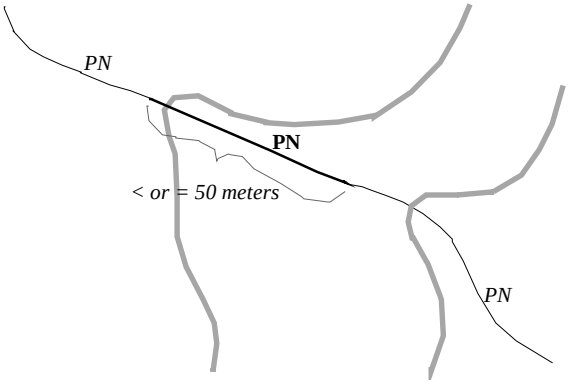
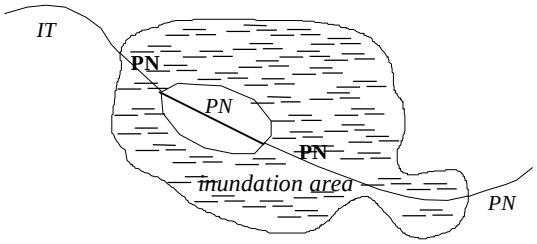
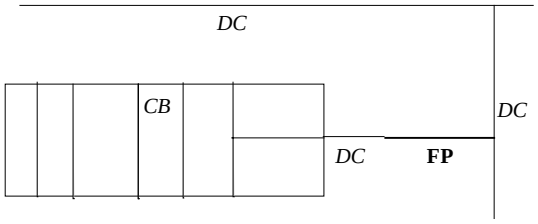
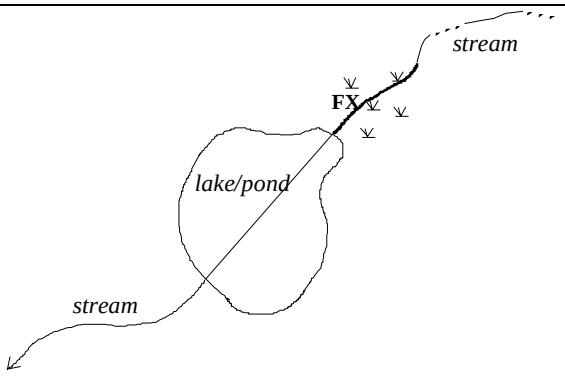
POLYGON TYPE
--ALL VISUALLY DETERMINED--

CODE	DESCRIPTION INFORMATION	CODING METHOD
EX cont'd.	• IT when an extension goes into and stems from an intermittent secondary flow stream.	
	• The extension takes on the duration of the stream, ditch/canal, or centerline it is extending to or from	
FP	PN, IT, or FX (perennial, intermittent, or fluctuating) • AUTOMATED • FX when in a headwater lake/pond, or in a lake/pond with only inlets and no outlets.	
	• FX when following a wetland gap connector.	

POLYGON TYPE
--ALL VISUALLY DETERMINED--

CODE	DESCRIPTION INFORMATION	CODING METHOD
FP cont'd	• FX when in a named backwater.	
	• PN when in a secondary flow.	
	• IT or PN (intermittent or perennial) when outside of a water polygon. If either stream that the flow potential is connecting is perennial, then the duration is perennial (perennial takes precedence). If both streams are intermittent, the duration is intermittent.	
	• IT or PN (intermittent or	

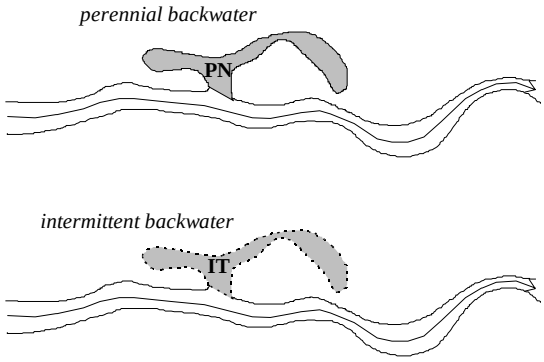
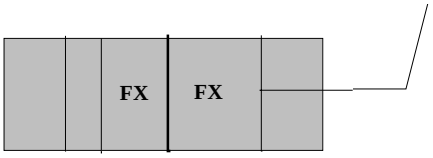
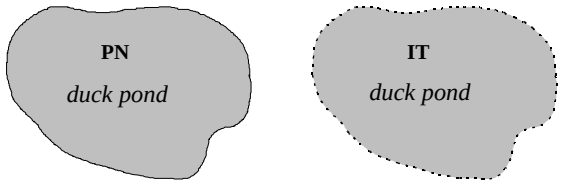
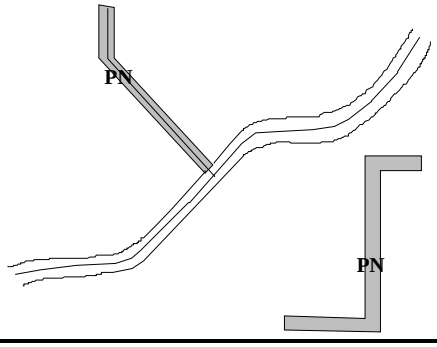
POLYGON TYPE
--ALL VISUALLY DETERMINED--

CODE	DESCRIPTION INFORMATION	CODING METHOD
FP cont'd.	perennial) when running through an inundation area. If either stream that the flow potential is connecting is perennial, then the duration is perennial (perennial takes precedence). If both streams are intermittent, the duration is intermittent. • FX when connecting a cranberry bog to a main waterway.	  
WG	FX • AUTOMATED	

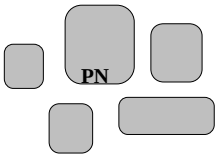
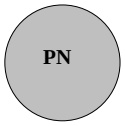
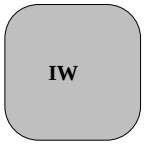
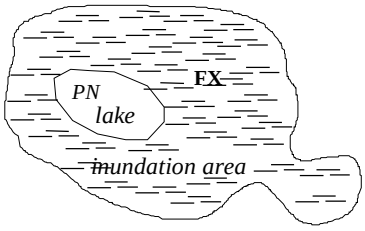
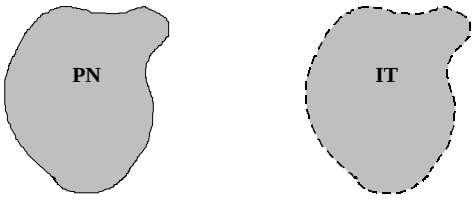
POLYGON TYPE
--ALL VISUALLY DETERMINED--

CODE	DESCRIPTION INFORMATION	CODING METHOD

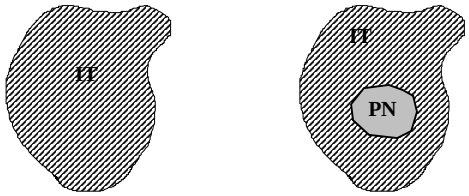
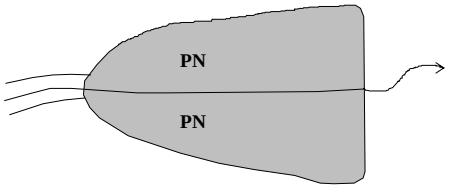
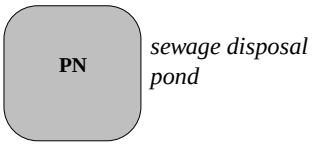
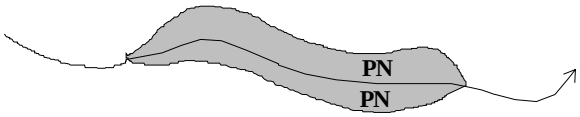
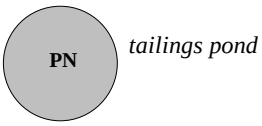
POLYGONAL DURATION (BY POLY TYPE)
--ALL AUTOMATED--

PTYPE	DESCRIPTION INFORMATION	VECTORIZING/DIGITIZING & CODING METHOD
Hydro features coded based on USGS quad representations		
BA	IT or PN (intermittent or perennial) • Initially, the banks are coded with duration of either IT or PN. Those duration codes are used to populate the polygon in which those arcs surround. Then, the bank durations are coded as NA.	
CB	FX (fluctuating)	
DP	IT or PN (intermittent or perennial) • Initially, the banks are coded with a duration of either IT or PN. Those duration codes are used to populate the polygon in which those arcs surround. Then, the bank durations are coded as NA.	
DC	PN (perennial)	

POLYGONAL DURATION (BY POLY TYPE)
--ALL AUTOMATED--

PTYPE	DESCRIPTION INFORMATION	VECTORIZING/DIGITIZING & CODING METHOD
FH	PN (perennial)	 *fish hatchery*
FE	PN (perennial)	
IW	PN (perennial)	 *industrial waste pond*
IA	FX (fluctuating)	
IS	NA (not applicable)	
LP	IT or PN (intermittent or perennial) • Initially, the banks are coded with a duration of either IT or PN. Those duration codes are used to populate the polygon in which those arcs surround. Then, the bank durations are coded as NA. • Sometimes are depicted on a quad	

POLYGONAL DURATION (BY POLY TYPE)
--ALL AUTOMATED--

PTYPE	DESCRIPTION INFORMATION	VECTORIZING/DIGITIZING & CODING METHOD
LP cont'd.	as water features filled with diagonal lines. The duration for these lake/ponds is IT. The editor visually determines these durations.	
RF	PN (perennial)	
SD	PN (perennial)	
ST	PN (perennial)	
TP	PN (perennial)	
UN	NA (not applicable)	
UP	NA (not applicable)	

POLYGONAL DURATION (BY POLY TYPE)
--ALL AUTOMATED--

PTYPE	DESCRIPTION INFORMATION	VECTORIZING/DIGITIZING & CODING METHOD
DNR features (hydro features coded based on DNR decision rules)		
ZZ	IT or PN (intermittent or perennial) • Initially, the banks are coded with a duration of either IT or PN. Those duration codes are used to populate the polygon in which those arcs surround. Then, the bank durations are coded as NA.