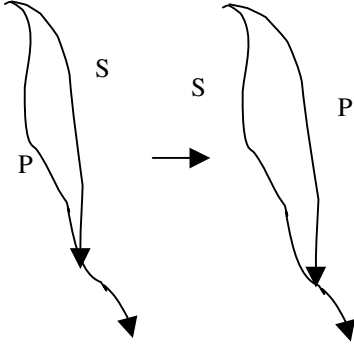
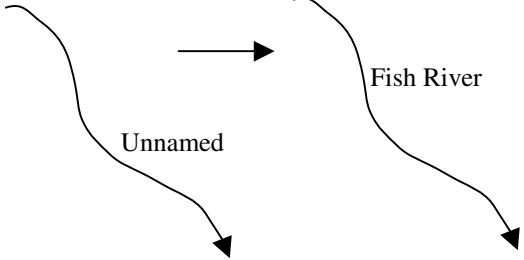
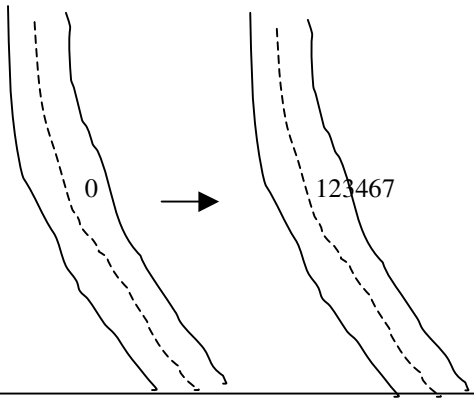


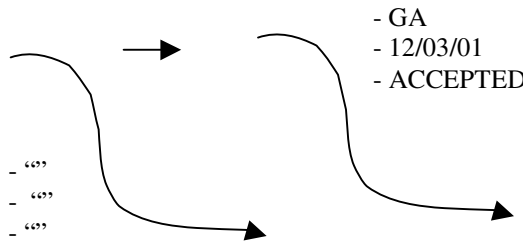
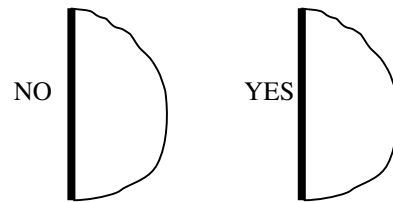
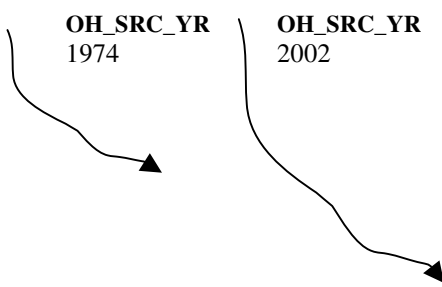
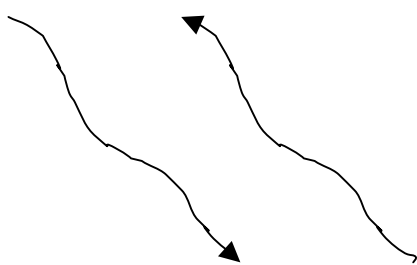
# **Wisconsin DNR 24K Hydrography Data Capture and Feature-Coding Decision Rules for the Change Flag Items**

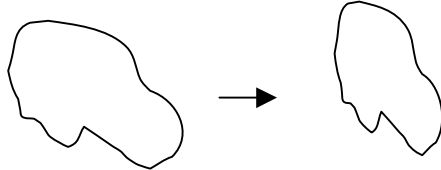
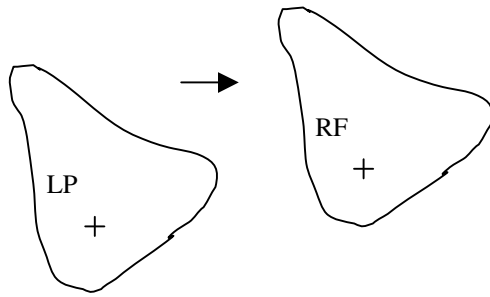
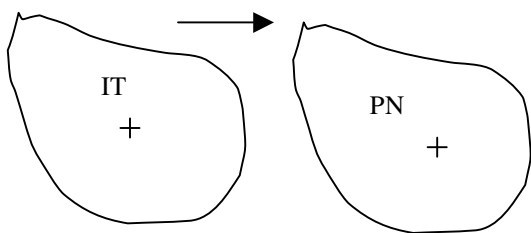
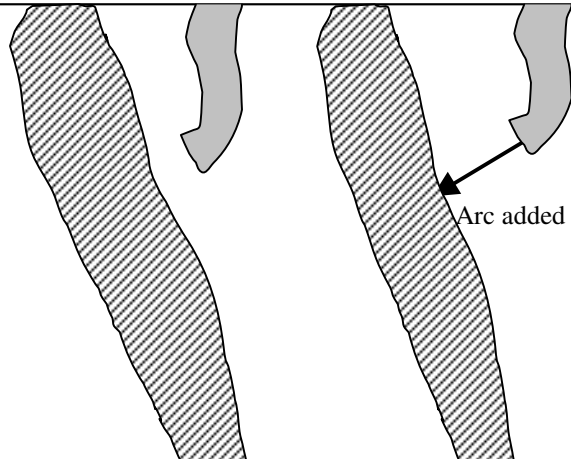
Wisconsin Department of Natural Resources  
Bureau of Technology Services  
Last Updated: Summer 2004

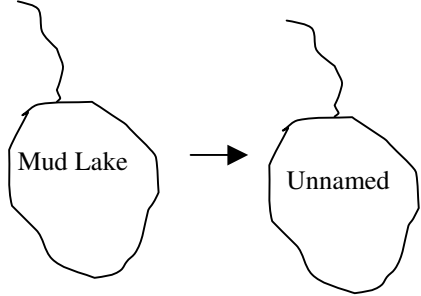
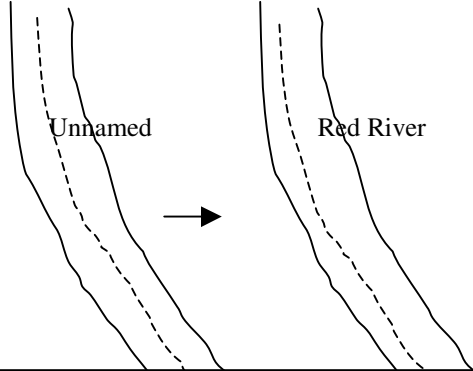
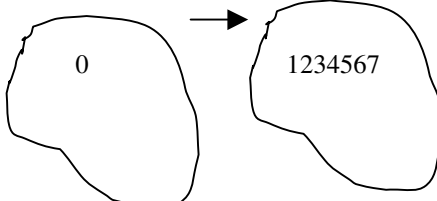


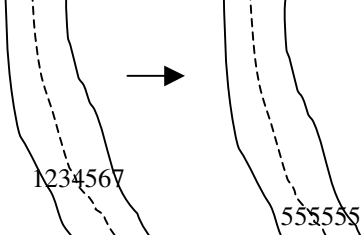
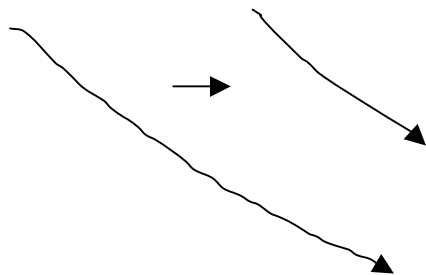
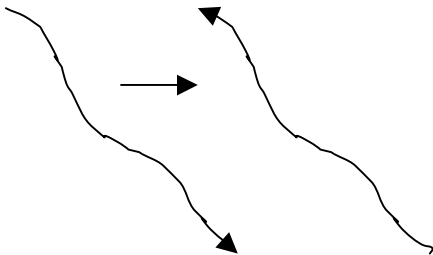
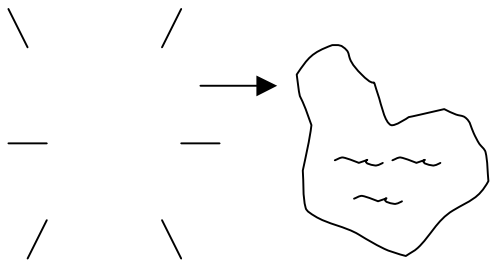
<b>GEOMETRY Change Flag (GEOM_CHFLG)</b>	
<b>ARCS (.AAT)</b>	<b>Before change -&gt; After change</b>
<p><b>LENGTH</b> If the length of an arc is changed from the previous release, the Geometry Flag will be populated.</p> <p><i>In this example, an arc has been shortened; therefore, the Geometry Change Flag is populated with a 1.</i></p>	
<b>NATURAL Change Flag (NAT_CHFLG)</b>	
<b>ARCS (.AAT)</b>	<b>Before Change -&gt; After Change</b>
<p><b>LTYPE</b> XX, CW, OC, BK, BF (Non-flow arcs) &lt;-&gt; CL, FP, EX, CB, WG, ST, DC (flow arcs) Non-flow arcs &lt;-&gt; Flow arcs (When Non-flow arcs change to Flow arcs, or when Flow arcs change to Non-flow arcs, the Natural Change Flag is populated.)</p> <p><i>In this example, a flow arc of linear_type of ST remained a flow arc but the linear_type changed to DC, and the Natural Change Flag was populated with 1. Also, an example of non-flow to flow is given.</i></p>	
<p><b>DURATION</b> IT, PN, FX &lt;-&gt; IT, PN, FX (When a duration of intermittent, perennial, or fluctuating changes to a duration of intermittent, perennial, or fluctuating.) NA&lt;-&gt;IT, PN, FX (When a duration of not applicable changes to a duration of intermittent, perennial, or fluctuating, or vice versa) When edits are made to DURATION, Natural Change Flag is populated.</p> <p><i>In this example, an arc was changed from DURATION = 'PN' to 'IT', populating Natural Change flag with a 1.</i></p>	
<p><b>LANDLOCKED</b> Y&lt;-&gt;N (When landlocked equals 'Yes' changes to 'No' or vice versa) When edits are to arcs that affect LANDLOCKED, Natural Change Flag is populated.</p> <p><i>In this example, stream A is extended to connect with stream B. Stream A therefore will no longer be LANDLOCKED and will have the NATURAL CHANGE FLAG item populated with a 1.</i></p>	

<b>NATURAL Change Flag (NAT_CHFLG)</b>	
<b>ARCS (.AAT)</b>	<b>Before change -&gt; After change</b>
<p><b>FLOW</b> SECONDARY &lt;-&gt; PRIMARY NA &lt;-&gt; SECONDARY or PRIMARY</p> <p>When flow is changed, the Natural Change flag is populated.</p> <p><i>Both streams in this braided example would have their Natural Change Flag populated with a 1.</i></p>	
<b>GNIS Change Flag (GNIS_CHFLG)</b>	
<b>ARCS (.AAT)</b>	<b>Before Change -&gt; After Change</b>
<p><b>RIVSYSNAME</b> NAME &lt;-&gt; NAME/NAMED or UNNAMED &lt;-&gt; NA -&gt; NAMED or UNNAMED</p> <p>Any changes to the RIVSYSNAME item will be flagged in the GNIS CHANGE item.</p> <p><i>In this example, an Unnamed stream is changed to 'Walt's River' therefore populating GNIS Change Flag with a 1.</i></p>	
<b>WBIC Change Flag (WBIC_CHFLG)</b>	
<b>ARCS (.AAT)</b>	<b>Before Change -&gt; After Change</b>
<p><b>RIVSYSWBIC</b> WBIC &lt;-&gt; -1 WBIC &lt;-&gt; WBIC</p> <p>Any changes made to RIVSYSWBIC will populate the WBIC CHANGE item with a 1.</p> <p><i>In this example, a river with no WBIC value is changed to 1234567, thus populating the WBIC Change Flag.</i></p>	

<b>REFERENCE Change Flag (REF_CHFLG)</b>	
<b>ARCS (.AAT)</b>	<b>Before Change -&gt; After Change</b>
<p><b>WBIC_BY, WBIC_DATE, WBIC_STAT</b></p> <p>When WBIC metadata is changed, Reference Change Flag is populated with a 1.</p> <p><i>In this example, an arc is given a WBIC therefore corresponding WBIC metadata is given to the arc.</i></p>	
<p><b>QUADLINE</b> YES&lt;-&gt; NO</p> <p>Any changes to the item QUADLINE, either from YES to NO or vice versa, will populate the REFERENCE Change Flag with a 1.</p> <p><i>In this example, QUADLINE is changed from NO to YES.</i></p>	
<p><b>OH_SRC_YR, YH_COL_MTH, OH_SRC_DNM, XREF, WGS-ID</b></p> <p>Any changes to the items listed above will populate the REFERENCE Change Flag with a 1.</p> <p><i>In this example, the OH_SRC_YR (the original source year of the line work) was updated because a more recent USGS quad was found.</i></p>	
<b>FLIP Change Flag (FLIP_CHFLG)</b>	
<b>ARCS (.AAT)</b>	<b>Before Change -&gt; After Change</b>
<p>An arc that is 'flipped' will be flagged as having a FLIP CHANGE item populated with a 1.</p> <p><i>In this example, an arc is flipped.</i></p>	

<b>GEOMETRY Change Flag (GEOM CHFLG)</b>	
<b>REGIONS (. PATSHAID)</b>	<b>Before Change -&gt; After Change</b>
<p><b>AREA and PERIMETER</b></p> <p>Edits made to the Regions that affect AREA will be flagged in the Geometry Change item.</p> <p><i>In this example, a lake decreases in both AREA and PERIMETER.</i></p>	
<b>NATURAL Change Flag (NAT CHFLG)</b>	
<b>REGIONS (.PATSHAID)</b>	<b>Before Change -&gt; After Change</b>
<p><b>STYP</b> Stype &gt; Stype</p> <p>Any changes made to the Shaidth_type (STYP) of a SHAID will cause the NATURAL CHANGE item to be populated.</p> <p><i>In this example, a lake with STYP of LP is changed to RF.</i></p>	
<p><b>DURATION</b> IT,PN,FX &lt;-&gt; IT,PN,FX</p> <p>Any changes to the DURATION of the Region will cause the NATURAL Change Flag to be populated with a 1.</p> <p><i>In this example, a lake with DURATION of 'IT' is changed to 'PN'.</i></p>	
<p><b>LANDLOCKED</b> Y&lt;-&gt; N (LANDLOCKED = 'YES' OR 'NO')</p> <p>When a landlocked feature is changed to a non-landlocked feature or a non-landlocked feature is changed to a landlocked feature, the Natural Change Flag is populated with 1.</p> <p><i>In this example, the shaded SHAID is connected with an arc to the striped SHAID, given the shaded SHAID a landlocked value.</i></p>	

GNIS Change Flag (GNIS_CHFLG)	
REGIONS (. PATSHAID)	Before Change -> After Change
<p><b>SHAIDNAME</b> Name &lt;-&gt; Unnamed</p> <p>Any changes to the SHAIDNAME field will populate the GNIS CHANGE item.</p> <p><i>In this example, SHAIDNAME = 'Mud Lake' is changed to 'Unnamed'. This will cause the GNIS CHANGE item field to be flagged.</i></p>	 <p>The diagram shows two irregular shapes representing a lake. The first shape is labeled 'Mud Lake'. An arrow points to the second shape, which is labeled 'Unnamed'.</p>
<p><b>RIVSYSNAME</b> Name &lt;-&gt; Unnamed</p> <p>Any changes made to RIVSYSNAME will populate the GNIS CHANGE item.</p> <p><i>In this example, RIVSYSNAME = 'Unnamed' is changed to 'Red River'.</i></p>	 <p>The diagram shows two river-like shapes. The first shape is labeled 'Unnamed'. An arrow points to the second shape, which is labeled 'Red River'.</p>
WBIC Change Flag (WBIC_CHFLG)	
REGIONS (. PATSHAID)	Before Change -> After Change
<p><b>SHAIDWBIC</b> WBIC &lt;-&gt; WBIC 0 &lt;-&gt; WBIC</p> <p>Any changes made to the SHAIDWBIC value will populate the WBIC Change Flag with a 1.</p> <p><i>In this example, a SHAID with a SHAIDWBIC value of 0 is changed to 1234567.</i></p>	 <p>The diagram shows two irregular shapes representing a lake. The first shape is labeled '0'. An arrow points to the second shape, which is labeled '1234567'.</p>

<p>WBIC &lt;-&gt; WBIC  0 &lt;-&gt; WBIC  Any changes made to the RIVSYSWBIC value will populate the WBIC Change Flag with a 1.</p> <p><i>In this example, a SHAID with a RIVSYSWBIC of 1234567 is changed to</i></p>	
<b>GEOMETRY Change Flag (GEOM_CHFLG)</b>	
<b>Routes (.RATSTEM)</b>	<b>Before Change -&gt; After Change</b>
<p><b>LENGTH</b></p> <p>Edits made to the length of a route will cause the Geometry Change Flag to be populated.</p> <p><i>In this example, a route is decreased in length, which will populate the Geometry Change Flag with a 1.</i></p>	
<b>FLIP Change Flag (Flip Flag)</b>	
<b>Routes (.RATSTEM)</b>	<b>Before Change -&gt; After Change</b>
<p>Flipping a route will cause the Flip Change Flag to be populated with a 1.</p> <p><i>In this example, a Route is flipped.</i></p>	
<b>NEW FEATURES Flag (NEW)</b>	
<b>ALL FEATURE CLASSES</b>	<b>Before Change -&gt; After Change</b>
<p>New features will be populated with the 'New' change item with a 1.</p> <p><i>In this example, a new lake is created.</i></p>	

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Rules.doc