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/** ----- 04a CREATE LOOP (USING GEONET DATA) -----
/**
/** FILE NAME:          04a_Create.txt
/** AUTHOR:            RENEE SCHICKER
/** CREATED:           03 MARCH 2009
/** UPDATED/MODIFIED:  10 JUNE 2009
/**
/** The scripts may be supplied in a more readily useable format if the work is acknowledged
/** CONTACT:           Renee_Schicker@hotmail.com
/**
/** USED BY SCRIPT:     04_Inventory.txt
/** SCRIPT USES:        CheckProgEdit.txt
/**
/** EXTERNAL VARIABLES: SET:   in 04_Inventory.txt      USE:   %.AUTO_ID%
/**
/** INTERNAL VARIABLES: SET:   .ZERO_RAD               USE:   %.ZERO_RAD%
/**                               .YEAR                  %.YEAR%
/**                               .LOC_TYPE              %.LOC_TYPE%
/**
/** COVERAGES USED:     LSI_Waikato
/** COVERAGES MADE:     LSI_W_%.AUTO_ID%              (MULTIPLE)
/**                               LSIW_buff_%.AUTO_ID%   (MULTIPLE)
/**                               LSIW_RAD0_%.AUTO_ID%   (MULTIPLE)
/**
/** PURPOSE:            To create individual buffer zones for each Auto_ID which should
/**                               make it possible to join the additional attributes probably after a
/**                               union of all layers has been included. This process runs as a
/**                               command in a loop found in 04_Inventory.txt.
/**
/** FUNCTIONS USED:      &CALL      &ROUTINE      &RETURN
/**                               &RUN      &SETVAR      &TYPE
/**                               &IF &THEN  [EXIST]      KILL
/**                               COPY      EDITCOVER (EC)  EDITFEATURE (EF)
/**                               SELECT     DELETE        CALCULATE
/**                               SAVE      QUIT (Q)        &IF &THEN &ELSE
/**                               BUFFER     ADDITEM
/**
/** NOTES ON ROUTINES:
/**     PREPARE:         Check for any existing covers with the same name created
/**                               from an earlier trial of this script and delete. Copy the
/**                               original (GEONET) coverage of landslide points within the
/**                               Waikato region. Edit the numbered copy so the numbered
/**                               copy matches the AUTO_ID (deleting other Auto_IDs in the copy)
/**
/**     SORT:            Sort through the Auto_Ids, those with 0 values for RADIUS_M
/**                               (AUTO_ID's 18, 19, 36-41) Will not be buffered, I have manually
/**                               identified these and they are copied (COPY Routine called)
/**                               whereas all other coverages are buffered (BUFFER Routine called)
/**                               by the RADIUS_M value. This is necessary otherwise script falls over.
/**
/**     ADDITEM:         Add attribute columns for Auto_ID, Year, and Loc_Class, all

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/**          numbered according to %.AUTO_ID so the information is retained
/**          following a union process.
/**
/**          C_AUTO_ID:  Edits the newly added Auto_ID%.AUTO_ID% column for the buffer
/**                      cover. Just specifies that the value to write in it is the %.AUTO_ID%
/**                      value.
/**
/**          YEAR:      Goes through a list of known years for ranges and select values of
/**                      AUTO_ID. When the &IF &THEN &ELSE statement is true it then calls
/**                      the CALC_YEAR Routine which just writes the %.YEAR% value to the
/**                      newly added Year%.AUTO_ID% attribute column of the buffer cover.
/**                      When the &IF &THEN part is not true, the &ELSE part sets the
/**                      variable to the following year. %.YEAR% can be anything between
/**                      1996 and 2008.
/**
/**          LOC_TYPE:   Same process and explanation as for the YEAR Routine, just three
/**                      classes A, B, or C.
/**
/**          ----- HISTORY -----
/**          03 MARCH 2009      Created Loop_Create.txt
/**          18 MARCH 2009      Fixed up script (added routines) and tidied it up a bit. Fixed script in
/**                              the YEAR Routine &IF &THEN &ELSE statements, was not working
/**                              with &THEN &TYPE &CALL &ELSE, moved &TYPE to before &IF. ARC
/**                              seems to show the typing for the year before, and every year
/**                              following the correct year in the black box window but doesn't show
/**                              the typing of the year it calculates. Script works correctly for first 20
/**                              at this stage. Detailed each routine above.
/**          20 MARCH 2009      Added kill process to follow buffer or copy to save space.
/**          27 APRIL 2009       Check script is consistent with others, update script information.
/**                              Runs from 03_Inventory.txt
/**          10 JUNE 2009        Rename Loop_create.txt as 04a_Create.txt, 03_Inventory.txt is
/**                              now 04_inventory.txt.
/**          *****
/**          *****

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```
&CALL PREPARE
```

```
&CALL SORT          /* CALLs Either COPY or BUFFER routine
```

```
&CALL ADDITEM
```

```
/* The buffer areas then go through these processes
```

```
&CALL C_AUTO_ID
```

```
&CALL YEAR
```

```
&CALL LOC_TYPE
```

```
&RETURN
```

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/*****
&ROUTINE PREPARE

&IF [EXIST LSI_W_%.AUTO_ID% -COVER] &THEN KILL LSI_W_%.AUTO_ID%
&IF [EXIST LSIW_buff_%.AUTO_ID% -COVER] &THEN KILL LSIW_buff_%.AUTO_ID%

COPY LSI_Waikato LSI_W_%.AUTO_ID%

&RUN d:\renee_gis\scripts\CheckProgEdit.txt

EC LSI_W_%.AUTO_ID%
EF POINT
SELECT for Auto_ID ne %AUTO_ID%
DELETE
SAVE
Q
&RETURN

/*****
&ROUTINE SORT

&SETVAR .ZERO_RAD = 18
&IF %AUTO_ID% = %ZERO_RAD% &THEN
&CALL COPY
&ELSE &SETVAR .ZERO_RAD = 19
&IF %AUTO_ID% = %ZERO_RAD% &THEN
&CALL COPY
&ELSE &SETVAR .ZERO_RAD = 36
&IF %AUTO_ID% = %ZERO_RAD% &THEN
&CALL COPY
&ELSE &SETVAR .ZERO_RAD = 37
&IF %AUTO_ID% = %ZERO_RAD% &THEN
&CALL COPY
&ELSE &SETVAR .ZERO_RAD = 38
&IF %AUTO_ID% = %ZERO_RAD% &THEN
&CALL COPY
&ELSE &SETVAR .ZERO_RAD = 39
&IF %AUTO_ID% = %ZERO_RAD% &THEN
&CALL COPY
&ELSE &SETVAR .ZERO_RAD = 40
&IF %AUTO_ID% = %ZERO_RAD% &THEN
&CALL COPY
&ELSE &SETVAR .ZERO_RAD = 41
&IF %AUTO_ID% = %ZERO_RAD% &THEN
&CALL COPY
&ELSE &CALL BUFFER
&RETURN

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/*****
&ROUTINE COPY
COPY LSI_W_%.AUTO_ID% LSIW_RAD0_%.AUTO_ID%
KILL lsi_w_%.AUTO_ID%
&RETURN

/*****
&ROUTINE BUFFER
/*BUFFER IF RADIUS NOT EQUAL TO 0
&TYPE beginning LSI_W_%.AUTO_ID% buffering...
BUFFER LSI_W_%.AUTO_ID% LSIW_buff_%.AUTO_ID% RADIUS_M # # 1 POINT ROUND
KILL lsi_w_%.AUTO_ID%
&RETURN

/*****
&ROUTINE ADDITEM

&TYPE STARTING ADDITEM...
/* ADDITEM

ADDITEM LSIW_buff_%.AUTO_ID%.pat LSIW_buff_%.AUTO_ID%.pat AUTO_ID%.AUTO_ID% 10 10 I
ADDITEM LSIW_buff_%.AUTO_ID%.pat LSIW_buff_%.AUTO_ID%.pat YEAR%.AUTO_ID% 10 10 I
ADDITEM LSIW_buff_%.AUTO_ID%.pat LSIW_buff_%.AUTO_ID%.pat LOC_CLASS%.AUTO_ID% 10 10
C

&TYPE additem done!
&RETURN

/*****
&ROUTINE C_AUTO_ID

&TYPE DEFINING AUTO_ID%.AUTO_ID% ...
&RUN d:\renee_gis\scripts\CheckProgEdit.txt

EC LSIW_buff_%.AUTO_ID%
EF POLYGON
SELECT ALL
CALCULATE AUTO_ID%.AUTO_ID% = %.AUTO_ID%
SAVE
Q
&TYPE AUTO_ID%.AUTO_ID% DEFINED!
&RETURN

/*****
&ROUTINE YEAR

&TYPE FIGURING OUT CORRECT YEAR...
&SETVAR .YEAR = 1996

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/* CALCULATE YEAR AS 1996 FOR AUTO_ID'S 1 AND 2
&TYPE Checking Year,YEAR = %.YEAR%
&IF %.AUTO_ID% <= 2 &THEN
&CALL CALC_YEAR
&ELSE &SETVAR .YEAR = 1997

/* CALCULATE YEAR AS 1997 FOR AUTO_ID'S 3 TO 5
&TYPE Checking Year, YEAR = %.YEAR%
&IF %.AUTO_ID% GE 3 AND %.AUTO_ID% <= 5 &THEN
&CALL CALC_YEAR
&ELSE &SETVAR .YEAR = 1998

/* CALCULATE YEAR AS 1998 FOR AUTO_ID'S 6 TO 13
&TYPE Checking Year,YEAR = %.YEAR%
&IF %.AUTO_ID% GE 6 AND %.AUTO_ID% <= 13 &THEN
&CALL CALC_YEAR
&ELSE &SETVAR .YEAR = 1999

/* CALCULATE YEAR AS 1999 FOR AUTO_ID 14
&TYPE Checking Year,YEAR = %.YEAR%
&IF %.AUTO_ID% = 14 &THEN
&CALL CALC_YEAR
&ELSE &SETVAR .YEAR = 2000

/* CALCULATE YEAR AS 2000 FOR AUTO_ID'S 15 TO 19
&TYPE Checking Year,YEAR = %.YEAR%
&IF %.AUTO_ID% GE 15 AND %.AUTO_ID% <= 19 &THEN
&CALL CALC_YEAR
&ELSE &SETVAR .YEAR = 2001

/* CALCULATE YEAR AS 2001 FOR AUTO_ID'S 20 TO 27
&TYPE Checking Year,YEAR = %.YEAR%
&IF %.AUTO_ID% GE 20 AND %.AUTO_ID% <= 27 &THEN
&CALL CALC_YEAR
&ELSE &SETVAR .YEAR = 2002

/* CALCULATE YEAR AS 2002 FOR AUTO_ID'S 28 TO 41
&TYPE Checking Year,YEAR = %.YEAR%
&IF %.AUTO_ID% GE 28 AND %.AUTO_ID% <= 41 &THEN
&CALL CALC_YEAR
&ELSE &SETVAR .YEAR = 2003

/* CALCULATE YEAR AS 2003 FOR AUTO_ID'S 42 TO 66, 68 TO 71, 80 AND 81
&TYPE Checking Year,YEAR = %.YEAR%
&IF %.AUTO_ID% GE 42 AND %.AUTO_ID% <= 66 OR %.AUTO_ID% GE 68 AND %.AUTO_ID% <= 71
&THEN
&CALL CALC_YEAR
&IF %.AUTO_ID% = 80 OR %.AUTO_ID% = 81 &THEN
&CALL CALC_YEAR
&ELSE &SETVAR .YEAR = 2004

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```
/* CALCULATE YEAR AS 2004 FOR AUTO_ID'S 74 TO 78
&TYPE Checking Year,YEAR = %.YEAR%
&IF %.AUTO_ID% GE 74 AND %.AUTO_ID% <= 78 &THEN
&CALL CALC_YEAR
&ELSE &SETVAR .YEAR = 2005
```

```
/* CALCULATE YEAR AS 2005 FOR AUTO_ID'S 82 TO 91
&TYPE Checking Year,YEAR = %.YEAR%
&IF %.AUTO_ID% GE 82 AND %.AUTO_ID% <= 91 &THEN
&CALL CALC_YEAR
&ELSE &SETVAR .YEAR = 2006
```

```
/* CALCULATE YEAR AS 2006 FOR AUTO_ID'S 92 TO 101
&TYPE Checking Year,YEAR = %.YEAR%
&IF %.AUTO_ID% GE 92 AND %.AUTO_ID% <= 101 &THEN
&CALL CALC_YEAR
&ELSE &SETVAR .YEAR = 2007
```

```
/* CALCULATE YEAR AS 2007 FOR AUTO_ID'S 72, 73, 79, AND 102 TO 105
&TYPE Checking Year,YEAR = %.YEAR%
&IF %.AUTO_ID% = 72 OR %.AUTO_ID% = 73 OR %.AUTO_ID% = 79 &THEN
&CALL CALC_YEAR
&IF %.AUTO_ID% GE 102 AND %.AUTO_ID% <= 105 &THEN
&CALL CALC_YEAR
&ELSE &SETVAR .YEAR = 2008
```

```
/* CALCULATE YEAR AS 2008 FOR AUTO_ID'S >= 106 AND <= 123
&TYPE Checking Year,YEAR = %.YEAR%
&IF %.AUTO_ID% = 67 OR %.AUTO_ID% GE 106 AND %.AUTO_ID% <= 123 &THEN
&CALL CALC_YEAR
&RETURN
```

```
/******
&ROUTINE LOC_TYPE
```

```
&SETVAR .LOC_TYPE = A
&IF %.AUTO_ID% = 1 OR %.AUTO_ID% = 4 OR %.AUTO_ID% = 5 OR %.AUTO_ID% = 24 &THEN
&CALL CALC_LOC_TYPE
&IF %.AUTO_ID% = 35 OR %.AUTO_ID% = 64 OR %.AUTO_ID% = 67 OR %.AUTO_ID% = 68 &THEN
&CALL CALC_LOC_TYPE
&IF %.AUTO_ID% = 71 OR %.AUTO_ID% = 74 OR %.AUTO_ID% = 75 OR %.AUTO_ID% = 81 &THEN
&CALL CALC_LOC_TYPE
&IF %.AUTO_ID% = 82 OR %.AUTO_ID% = 85 OR %.AUTO_ID% = 87 OR %.AUTO_ID% = 88 &THEN
&CALL CALC_LOC_TYPE
&IF %.AUTO_ID% = 93 OR %.AUTO_ID% = 102 OR %.AUTO_ID% = 107 OR %.AUTO_ID% = 108 &THEN
&CALL CALC_LOC_TYPE
&IF %.AUTO_ID% = 111 OR %.AUTO_ID% = 123 OR %.AUTO_ID% GE 7 AND %.AUTO_ID% <= 14
&THEN
&CALL CALC_LOC_TYPE
```

```
&IF %.AUTO_ID% GE 42 AND %.AUTO_ID% <= 53 OR %.AUTO_ID% GE 56 AND %.AUTO_ID% <= 58
&THEN
&CALL CALC_LOC_TYPE
&ELSE &SETVAR .LOC_TYPE = B
```

```
&IF %.AUTO_ID% = 3 OR %.AUTO_ID% = 6 OR %.AUTO_ID% = 17 &THEN
&CALL CALC_LOC_TYPE
&IF %.AUTO_ID% = 23 OR %.AUTO_ID% = 32 OR %.AUTO_ID% = 33 &THEN
&CALL CALC_LOC_TYPE
&IF %.AUTO_ID% = 39 OR %.AUTO_ID% = 54 OR %.AUTO_ID% = 55 &THEN
&CALL CALC_LOC_TYPE
&IF %.AUTO_ID% = 69 OR %.AUTO_ID% = 86 OR %.AUTO_ID% = 90 &THEN
&CALL CALC_LOC_TYPE
&IF %.AUTO_ID% = 94 OR %.AUTO_ID% = 95 OR %.AUTO_ID% = 99 &THEN
&CALL CALC_LOC_TYPE
&IF %.AUTO_ID% = 103 OR %.AUTO_ID% = 105 OR %.AUTO_ID% = 106 &THEN
&CALL CALC_LOC_TYPE
&IF %.AUTO_ID% = 109 OR %.AUTO_ID% = 113 OR %.AUTO_ID% = 115 &THEN
&CALL CALC_LOC_TYPE
&IF %.AUTO_ID% = 116 OR %.AUTO_ID% = 121 OR %.AUTO_ID% = 122 &THEN
&CALL CALC_LOC_TYPE
&IF %.AUTO_ID% GE 25 AND %.AUTO_ID% <= 29 &THEN
&CALL CALC_LOC_TYPE
&IF %.AUTO_ID% GE 59 AND %.AUTO_ID% <= 63 &THEN
&CALL CALC_LOC_TYPE
&ELSE &SETVAR .LOC_TYPE = C
```

```
&IF %.AUTO_ID% = 2 OR %.AUTO_ID% = 15 OR %.AUTO_ID% = 16 &THEN
&CALL CALC_LOC_TYPE
&IF %.AUTO_ID% = 30 OR %.AUTO_ID% = 31 OR %.AUTO_ID% = 34 &THEN
&CALL CALC_LOC_TYPE
&IF %.AUTO_ID% = 65 OR %.AUTO_ID% = 66 OR %.AUTO_ID% = 70 &THEN
&CALL CALC_LOC_TYPE
&IF %.AUTO_ID% = 72 OR %.AUTO_ID% = 73 OR %.AUTO_ID% = 83 &THEN
&CALL CALC_LOC_TYPE
&IF %.AUTO_ID% = 84 OR %.AUTO_ID% = 89 OR %.AUTO_ID% = 91 &THEN
&CALL CALC_LOC_TYPE
&IF %.AUTO_ID% = 92 OR %.AUTO_ID% = 100 OR %.AUTO_ID% = 101 &THEN
&CALL CALC_LOC_TYPE
&IF %.AUTO_ID% = 104 OR %.AUTO_ID% = 110 &THEN
&CALL CALC_LOC_TYPE
&IF %.AUTO_ID% = 112 OR %.AUTO_ID% = 114 &THEN
&CALL CALC_LOC_TYPE
&IF %.AUTO_ID% GE 20 AND %.AUTO_ID% <= 22 OR %.AUTO_ID% GE 76 AND %.AUTO_ID% <= 80
&THEN
&CALL CALC_LOC_TYPE
&IF %.AUTO_ID% GE 96 AND %.AUTO_ID% <= 98 OR %.AUTO_ID% GE 117 AND %.AUTO_ID% <= 120
&THEN
&CALL CALC_LOC_TYPE
&RETURN
```

```
/*****
```

```
&ROUTINE CALC_YEAR
```

```
&TYPE NOW COMPILING LOCATION CLASS
```

```
&RUN d:\renee_gis\scripts\CheckProgEdit.txt
```

```
EC LSIW_buff_%.AUTO_ID%
```

```
EF POLYGON
```

```
SELECT FOR AUTO_ID%.AUTO_ID% = %.AUTO_ID%
```

```
CALCULATE YEAR%.AUTO_ID% = %.YEAR%
```

```
SAVE
```

```
Q
```

```
&RETURN
```

```
/*****
```

```
&ROUTINE CALC_LOC_TYPE
```

```
&RUN d:\renee_gis\scripts\CheckProgEdit.txt
```

```
EC LSIW_buff_%.AUTO_ID%
```

```
EF POLYGON
```

```
SELECT FOR AUTO_ID%.AUTO_ID% = %.AUTO_ID%
```

```
CALCULATE LOC_CLASS%.AUTO_ID% = "%.LOC_TYPE%
```

```
SAVE
```

```
Q
```

```
&RETURN
```

```
/*****
```