

## Appendix C: Modules

### Module 1: Update direct industrial dischargers

```
Sub UpdateTT Ind()  
'Create 9/14/01 by Megan Tulloch  
'Last modified 9/20/01 by Megan Tulloch  
'Modified 12/4/01 by A. Miles  
'Tables  
    Dim dbs As Database  
    Dim ttindselect As Recordset  
    Set dbs = CurrentDb()  
    Set ttindselect = dbs.OpenRecordset("TTDirect")  
'Variables  
    Dim v_bod As Variant  
    Dim v_tss As Variant  
    Dim v_tn As Variant  
    Dim v_tp As Variant  
    Dim v_fec As Variant  
    Dim v_tkn As Variant  
    Dim v_npdes As Variant  
    Dim v_flow As Variant  
'SQL query statement variables  
    Dim UpdqryStr As String  
    Dim SelqryStr As String  
'Open TT Industrial Data  
    SelqryStr = "select * from TTDirect where (option = 'BA T4' Or option = 'PSES1');"  
    Set ttindselect = dbs.OpenRecordset(SelqryStr)  
    DoCmd.SetWarnings False  
    ttindselect.MoveFirst  
    Do Until ttindselect.EOF  
'Set variables to TT industrial data values  
    v_bod = ttindselect!BOD  
    v_tss = ttindselect!TSS  
    v_tn = ttindselect!TN  
    v_tp = ttindselect!TP  
    v_fec = ttindselect!FEC  
    v_tkn = ttindselect!TKN  
    v_npdes = ttindselect!NPDES  
    v_flow = ttindselect!Flow 'If TT flow rates are in gpd, need to add conversion factor!  
'Update NWPCAM industrial select table with TT values by corresponding NPDES  
    UpdqryStr = "UPDATE indselect SET " & _  
    "flow = " & v_flow & ", bod = " & v_bod & ", tss = " & v_tss & ", tn = " & v_tn & ", tp = " & v_tp & ", fec = "  
    " & v_fec & ", tkn = " & v_tkn & " " & _  
    "WHERE npdes = " & v_npdes & ";"  
    DoCmd.RunSQL (UpdqryStr)  
    ttindselect.MoveNext  
Loop  
ttindselect.Close  
DoCmd.SetWarnings True  
End Sub
```

### Module 2: Insert Indirect Industrial Facilities

```

Sub InsertTTMuntoInd()
'Create 9/14/01 by Megan Tulloch
'Last modified 9/20/01 by Megan Tulloch
'Modified 1/8/02 by A Miles
'Tables
    Dim dbs As Database
    Dim ttmunselect As Recordset
    Dim modmunselect As Recordset
    Set dbs = CurrentDb()
'Variables
    Dim i As Long
    Dim v_npdes As Variant
    Dim v_type As Variant
    Dim v_bod As Variant
    Dim v_tss As Variant
    Dim v_tn As Variant
    Dim v_tp As Variant
    Dim v_fec As Variant
    Dim v_tkn As Variant
    Dim v_ttfLOW
    Dim v_primary_BOD As Variant
    Dim v_primary_TSS As Variant
    Dim v_primary_TN As Variant
    Dim v_primary_TP As Variant
    Dim v_primary_FEC As Variant
    Dim v_primary_TKN As Variant
    Dim v_advprimary_BOD As Variant
    Dim v_advprimary_TSS As Variant
    Dim v_advprimary_TN As Variant
    Dim v_advprimary_TP As Variant
    Dim v_advprimary_FEC As Variant
    Dim v_advprimary_TKN As Variant
    Dim v_secondary_BOD As Variant
    Dim v_secondary_TSS As Variant
    Dim v_secondary_TN As Variant
    Dim v_secondary_TP As Variant
    Dim v_secondary_FEC As Variant
    Dim v_secondary_TKN As Variant
    Dim v_advwt1_BOD As Variant
    Dim v_advwt1_TSS As Variant
    Dim v_advwt1_TN As Variant
    Dim v_advwt1_TP As Variant
    Dim v_advwt1_FEC As Variant
    Dim v_advwt1_TKN As Variant
    Dim v_advwt2_BOD As Variant
    Dim v_advwt2_TSS As Variant
    Dim v_advwt2_TN As Variant
    Dim v_advwt2_TP As Variant
    Dim v_advwt2_FEC As Variant
    Dim v_advwt2_TKN As Variant

```

Dim v\_default\_BOD As Variant  
 Dim v\_default\_TSS As Variant  
 Dim v\_default\_TN As Variant  
 Dim v\_default\_TP As Variant  
 Dim v\_default\_FEC As Variant  
 Dim v\_default\_TKN As Variant  
 Dim v\_seqno As Variant  
 Dim v\_mi As Variant  
 Dim v\_do As Variant  
 Dim v\_cbodtoubod As Variant  
 Dim v\_psfbod As Variant  
 Dim v\_psfTSS As Variant  
 Dim v\_cu As Variant  
 Dim v\_seg As Variant  
 Dim v\_name As Variant  
 'SQL Query Statement Variables  
 Dim TTselqryStr As String  
 Dim SelqryStr As String  
 Dim UpdqryStr As String  
 Dim InsqryStr As String  
 v\_primary\_BOD = 0.7  
 v\_primary\_TSS = 0.5  
 v\_primary\_TN = 0.78  
 v\_primary\_TP = 0.87  
 v\_primary\_FEC = 0.65  
 v\_primary\_TKN = 0.78  
 v\_advprimary\_BOD = 0.5  
 v\_advprimary\_TSS = 0.3  
 v\_advprimary\_TN = 0.78  
 v\_advprimary\_TP = 0.87  
 v\_advprimary\_FEC = 0.65  
 v\_advprimary\_TKN = 0.78  
 v\_secondary\_BOD = 0.08  
 v\_secondary\_TSS = 0.08  
 v\_secondary\_TN = 0.61  
 v\_secondary\_TP = 0.42  
 v\_secondary\_FEC = 0.0005  
 v\_secondary\_TKN = 0.55  
 v\_advwt1\_BOD = 0.03  
 v\_advwt1\_TSS = 0.03  
 v\_advwt1\_TN = 0.61  
 v\_advwt1\_TP = 0.06  
 v\_advwt1\_FEC = 0.0005  
 v\_advwt1\_TKN = 0.43  
 v\_advwt2\_BOD = 0.02  
 v\_advwt2\_TSS = 0.02  
 v\_advwt2\_TN = 0.48  
 v\_advwt2\_TP = 0.06  
 v\_advwt2\_FEC = 0.0000032  
 v\_advwt2\_TKN = 0.12  
 v\_default\_BOD = 0.08  
 v\_default\_TSS = 0.08

```

v_default_TN = 0.61
v_default_TP = 0.42
v_default_FEC = 0.0005
v_default_TKN = 0.55
'Open TT Municipal Data
  TTSelqryStr = "select * from TTIndirect where option = 'BAC';"
  Set ttmunselect = dbs.OpenRecordset(TTSelqryStr)
  DoCmd.SetWarnings False
  i = 0
  ttmunselect.MoveFirst
  Do Until ttmunselect.EOF
  i = i + 1
'Select Row in NWPCAM Model Data corresponding TT data by NPDES
  SelqryStr = "select * from munselect where npdes = '" & ttmunselect!NPDES & "';"
  Set modmunselect = dbs.OpenRecordset(SelqryStr)
'Set variable from TT data to be moved into NWPCAM Industrial Table
  v_npdes = ttmunselect!NPDES
  v_type = "INDIRECT"
'Set Flow variables to be used in calculating loads
  v_ttflow = ttmunselect!Flow 'If TT flows are in gpd, need to add conversion factor.
  If modmunselect!LEVEL = 2 Then
'Calculate loads for both TT and NWPCAM municipal data
  v_bod = ttmunselect!BOD * v_primary_BOD
  v_tss = ttmunselect!TSS * v_primary_TSS
  v_tn = ttmunselect!TN * v_primary_TN
  v_tp = ttmunselect!TP * v_primary_TP
  v_fec = ttmunselect!FEC * v_primary_FEC
  v_tkn = ttmunselect!TKN * v_primary_TKN
ElseIf modmunselect!LEVEL = 3 Then
'Calculate loads for both TT and NWPCAM municipal data
  v_bod = ttmunselect!BOD * v_advprimary_BOD
  v_tss = ttmunselect!TSS * v_advprimary_TSS
  v_tn = ttmunselect!TN * v_advprimary_TN
  v_tp = ttmunselect!TP * v_advprimary_TP
  v_fec = ttmunselect!FEC * v_advprimary_FEC
  v_tkn = ttmunselect!TKN * v_advprimary_TKN
ElseIf modmunselect!LEVEL = 4 Then
'Calculate loads for both TT and NWPCAM municipal data
  v_bod = ttmunselect!BOD * v_secondary_BOD
  v_tss = ttmunselect!TSS * v_secondary_TSS
  v_tn = ttmunselect!TN * v_secondary_TN
  v_tp = ttmunselect!TP * v_secondary_TP
  v_fec = ttmunselect!FEC * v_secondary_FEC
  v_tkn = ttmunselect!TKN * v_secondary_TKN
ElseIf modmunselect!LEVEL = 5 Then
'Calculate loads for both TT and NWPCAM municipal data
  v_bod = ttmunselect!BOD * v_advwt1_BOD
  v_tss = ttmunselect!TSS * v_advwt1_TSS
  v_tn = ttmunselect!TN * v_advwt1_TN
  v_tp = ttmunselect!TP * v_advwt1_TP
  v_fec = ttmunselect!FEC * v_advwt1_FEC
  v_tkn = ttmunselect!TKN * v_advwt1_TKN

```

```

ElseIf modmunselect!LEVEL = 6 Then
'Calculate loads for both TT and NWPCAM municipal data
  v_bod = ttmunselect!BOD * v_advwt2_BOD
  v_tss = ttmunselect!TSS * v_advwt2_TSS
  v_tn = ttmunselect!TN * v_advwt2_TN
  v_tp = ttmunselect!TP * v_advwt2_TP
  v_fec = ttmunselect!FEC * v_advwt2_FEC
  v_tkn = ttmunselect!TKN * v_advwt2_TKN
ElseIf modmunselect!LEVEL = 9 Then
'Calculate concentrations for both TT and NWPCAM municipal data
  v_bod = ttmunselect!BOD * v_default_BOD
  v_tss = ttmunselect!TSS * v_default_TSS
  v_tn = ttmunselect!TN * v_default_TN
  v_tp = ttmunselect!TP * v_default_TP
  v_fec = ttmunselect!FEC * v_default_FEC
  v_tkn = ttmunselect!TKN * v_default_TKN
End If
'Insert into the NWPCAM industrial select table new values
  InsqryStr = "INSERT INTO indselect " & _
  "(flow,bod,tss,tn,tp,fec,tkn,npdes,type)" & _
  "VALUES (" & v_tflow & ", " & v_bod & ", " & v_tss & ", " & v_tn & ", " & v_tp & ", " & v_fec & ", " &
  v_tkn & ", " & v_npdes & ", " & _
  v_type & ");"
  DoCmd.RunSQL (InsqryStr)
'Set variables to be moved from NWPCAM Municipal Select table directly into Industrial Select Table
  v_seqno = modmunselect!seqno
  v_mi = modmunselect!MI
  v_do = modmunselect!DO
  v_cbodtoubod = modmunselect!CBODTOUBOD
  v_psfbod = modmunselect!PSFBOD
  v_psfss = modmunselect!PSFTSS
  v_cu = modmunselect!CU
  v_seg = modmunselect!SEG
  v_name = modmunselect!NAME
'Update the new row with the constant data to copied from the NWPCAM municipal select table
  UpdqryStr = "UPDATE indselect SET " & _
  "name = " & v_name & ", seqno = " & v_seqno & ", mi = " & v_mi & ", do = " & v_do & ", cbodtoubod =
  " & v_cbodtoubod & ", psfbod = " & v_psfbod & ", psfss = " & v_psfss & ", cu = " & v_cu & ", seg = " &
  v_seg & " & _
  "WHERE npdes = " & v_npdes & ";"
  DoCmd.RunSQL (UpdqryStr)
  ttmunselect.MoveNext
Loop
ttmunselect.Close
MsgBox i & " were updated"
DoCmd.SetWarnings False
End Sub

```



### Module 3: Update municipal facilities

Sub UpdateMun()

'Create 11/12/01 by Megan Tulloch

'Last modified 11/13/01 by Megan Tulloch

'Tables

```
Dim dbs As Database
Dim ttmunselect As Recordset
Dim modmunselect As Recordset
Set dbs = CurrentDb()
```

'Variables

```
Dim i As Long
Dim v_npdes As Variant
Dim v_ttflo w As Variant
Dim v_modflow As Variant
Dim v_bod_new As Variant
Dim v_tss_new As Variant
Dim v_tn_new As Variant
Dim v_tp_new As Variant
Dim v_fec_new As Variant
Dim v_flow_new As Variant
Dim v_tkn_new As Variant
Dim v_primary_BOD As Variant
Dim v_primary_TSS As Variant
Dim v_primary_TN As Variant
Dim v_primary_TP As Variant
Dim v_primary_FEC As Variant
Dim v_primary_TKN As Variant
Dim v_advprimary_BOD As Variant
Dim v_advprimary_TSS As Variant
Dim v_advprimary_TN As Variant
Dim v_advprimary_TP As Variant
Dim v_advprimary_FEC As Variant
Dim v_advprimary_TKN As Variant
Dim v_secondary_BOD As Variant
Dim v_secondary_TSS As Variant
Dim v_secondary_TN As Variant
Dim v_secondary_TP As Variant
Dim v_secondary_FEC As Variant
Dim v_secondary_TKN As Variant
Dim v_advwt1_BOD As Variant
Dim v_advwt1_TSS As Variant
Dim v_advwt1_TN As Variant
Dim v_advwt1_TP As Variant
Dim v_advwt1_FEC As Variant
Dim v_advwt1_TKN As Variant
Dim v_advwt2_BOD As Variant
Dim v_advwt2_TSS As Variant
Dim v_advwt2_TN As Variant
Dim v_advwt2_TP As Variant
Dim v_advwt2_FEC As Variant
Dim v_advwt2_TKN As Variant
```

```

Dim v_default_BOD As Variant
Dim v_default_TSS As Variant
Dim v_default_TN As Variant
Dim v_default_TP As Variant
Dim v_default_FEC As Variant
Dim v_default_TKN As Variant
'SQL Query Statement Variables
Dim TTselqryStr As String
Dim SelqryStr As String
Dim UpdqryStr As String
v_primary_BOD = 0.7
v_primary_TSS = 0.5
v_primary_TN = 0.78
v_primary_TP = 0.87
v_primary_FEC = 0.65
v_primary_TKN = 0.78
v_advprimary_BOD = 0.5
v_advprimary_TSS = 0.3
v_advprimary_TN = 0.78
v_advprimary_TP = 0.87
v_advprimary_FEC = 0.65
v_advprimary_TKN = 0.78
v_secondary_BOD = 0.08
v_secondary_TSS = 0.08
v_secondary_TN = 0.61
v_secondary_TP = 0.42
v_secondary_FEC = 0.0005
v_secondary_TKN = 0.55
v_advwt1_BOD = 0.03
v_advwt1_TSS = 0.03
v_advwt1_TN = 0.61
v_advwt1_TP = 0.06
v_advwt1_FEC = 0.0005
v_advwt1_TKN = 0.43
v_advwt2_BOD = 0.02
v_advwt2_TSS = 0.02
v_advwt2_TN = 0.48
v_advwt2_TP = 0.06
v_advwt2_FEC = 0.0000032
v_advwt2_TKN = 0.12
v_default_BOD = 0.08
v_default_TSS = 0.08
v_default_TN = 0.61
v_default_TP = 0.42
v_default_FEC = 0.0005
v_default_TKN = 0.55
'Open TT Municipal Data
TTselqryStr = "select * from TTIndirect where option = 'BAC';"
Set ttmunselect = dbs.OpenRecordset(TTselqryStr)
DoCmd.SetWarnings False
i = 0
ttmunselect.MoveFirst

```



```

Do Until ttmunselect.EOF
i = i + 1
'Select Row in NWPCAM Model Data corresponding TT data by NPDES
  SelqryStr = "select * from munselect where npdes = " & ttmunselect!NPDES & ";"
  Set modmunselect = dbs.OpenRecordset(SelqryStr)
'Set variable from TT data to be moved into NWPCAM Industrial Table
  v_npdes = ttmunselect!NPDES
'Set Flow variables to be used in calculating loads
  v_modflow = modmunselect!Flow
  v_ttfLOW = ttmunselect!Flow 'If TT flows are in gpd, need to add in conversion factor!
'Calculate new flow value to be inserted in industrial select table
'changed from ttmunselect!Flow to v_ttfLOW
  v_flow_new = modmunselect!Flow - v_ttfLOW
'If new flow <0 then set all concentration variables to original values
  If v_flow_new <= 0 Then
    v_flow_new = modmunselect!Flow / 2
    v_bod_new = modmunselect!BOD
    v_tss_new = modmunselect!TSS
    v_tn_new = modmunselect!TN
    v_tp_new = modmunselect!TP
    v_fec_new = modmunselect!FEC
    v_tkn_new = modmunselect!TKN
  ElseIf modmunselect!LEVEL = 2 Then
'Calculate loads for both TT and NWPCAM municipal data
    v_bod_new = ((modmunselect!BOD * v_modflow) - (ttmunselect!BOD * v_primary_BOD * v_ttfLOW)) /
v_flow_new
    v_tss_new = ((modmunselect!TSS * v_modflow) - (ttmunselect!TSS * v_primary_TSS * v_ttfLOW)) /
v_flow_new
    v_tn_new = ((modmunselect!TN * v_modflow) - (ttmunselect!TN * v_primary_TN * v_ttfLOW)) /
v_flow_new
    v_tp_new = ((modmunselect!TP * v_modflow) - (ttmunselect!TP * v_primary_TP * v_ttfLOW)) /
v_flow_new
    v_fec_new = ((modmunselect!FEC * v_modflow) - (ttmunselect!FEC * v_primary_FEC * v_ttfLOW)) /
v_flow_new
    v_tkn_new = ((modmunselect!TKN * v_modflow) - (ttmunselect!TKN * v_primary_TKN * v_ttfLOW)) /
v_flow_new
  ElseIf modmunselect!LEVEL = 3 Then
'Calculate loads for both TT and NWPCAM municipal data
    v_bod_new = ((modmunselect!BOD * v_modflow) - (ttmunselect!BOD * v_advprimary_BOD *
v_ttfLOW)) / v_flow_new
    v_tss_new = ((modmunselect!TSS * v_modflow) - (ttmunselect!TSS * v_advprimary_TSS * v_ttfLOW)) /
v_flow_new
    v_tn_new = ((modmunselect!TN * v_modflow) - (ttmunselect!TN * v_advprimary_TN * v_ttfLOW)) /
v_flow_new
    v_tp_new = ((modmunselect!TP * v_modflow) - (ttmunselect!TP * v_advprimary_TP * v_ttfLOW)) /
v_flow_new
    v_fec_new = ((modmunselect!FEC * v_modflow) - (ttmunselect!FEC * v_advprimary_FEC * v_ttfLOW)) /
v_flow_new
    v_tkn_new = ((modmunselect!TKN * v_modflow) - (ttmunselect!TKN * v_advprimary_TKN * v_ttfLOW))
/ v_flow_new
  ElseIf modmunselect!LEVEL = 4 Then
'Calculate loads for both TT and NWPCAM municipal data

```

```

    v_bod_new = ((modmunselect!BOD * v_modflow) - (ttmunselect!BOD * v_secondary_BOD * v_ttfloor)) / v_flow_new
    v_tss_new = ((modmunselect!TSS * v_modflow) - (ttmunselect!TSS * v_secondary_TSS * v_ttfloor)) / v_flow_new
    v_tn_new = ((modmunselect!TN * v_modflow) - (ttmunselect!TN * v_secondary_TN * v_ttfloor)) / v_flow_new
    v_tp_new = ((modmunselect!TP * v_modflow) - (ttmunselect!TP * v_secondary_TP * v_ttfloor)) / v_flow_new
    v_fec_new = ((modmunselect!FEC * v_modflow) - (ttmunselect!FEC * v_secondary_FEC * v_ttfloor)) / v_flow_new
    v_tkn_new = ((modmunselect!TKN * v_modflow) - (ttmunselect!TKN * v_secondary_TKN * v_ttfloor)) / v_flow_new
ElseIf modmunselect!LEVEL = 5 Then
'Calculate loads for both TT and NWPCAM municipal data
    v_bod_new = ((modmunselect!BOD * v_modflow) - (ttmunselect!BOD * v_advwt1_BOD * v_ttfloor)) / v_flow_new
    v_tss_new = ((modmunselect!TSS * v_modflow) - (ttmunselect!TSS * v_advwt1_TSS * v_ttfloor)) / v_flow_new
    v_tn_new = ((modmunselect!TN * v_modflow) - (ttmunselect!TN * v_advwt1_TN * v_ttfloor)) / v_flow_new
    v_tp_new = ((modmunselect!TP * v_modflow) - (ttmunselect!TP * v_advwt1_TP * v_ttfloor)) / v_flow_new
    v_fec_new = ((modmunselect!FEC * v_modflow) - (ttmunselect!FEC * v_advwt1_FEC * v_ttfloor)) / v_flow_new
    v_tkn_new = ((modmunselect!TKN * v_modflow) - (ttmunselect!TKN * v_advwt1_TKN * v_ttfloor)) / v_flow_new
ElseIf modmunselect!LEVEL = 6 Then
'Calculate loads for both TT and NWPCAM municipal data
    v_bod_new = ((modmunselect!BOD * v_modflow) - (ttmunselect!BOD * v_advwt2_BOD * v_ttfloor)) / v_flow_new
    v_tss_new = ((modmunselect!TSS * v_modflow) - (ttmunselect!TSS * v_advwt2_TSS * v_ttfloor)) / v_flow_new
    v_tn_new = ((modmunselect!TN * v_modflow) - (ttmunselect!TN * v_advwt2_TN * v_ttfloor)) / v_flow_new
    v_tp_new = ((modmunselect!TP * v_modflow) - (ttmunselect!TP * v_advwt2_TP * v_ttfloor)) / v_flow_new
    v_fec_new = ((modmunselect!FEC * v_modflow) - (ttmunselect!FEC * v_advwt2_FEC * v_ttfloor)) / v_flow_new
    v_tkn_new = ((modmunselect!TKN * v_modflow) - (ttmunselect!TKN * v_advwt2_TKN * v_ttfloor)) / v_flow_new
ElseIf modmunselect!LEVEL = 9 Then
'Calculate loads for both TT and NWPCAM municipal data
    v_bod_new = ((modmunselect!BOD * v_modflow) - (ttmunselect!BOD * v_default_BOD * v_ttfloor)) / v_flow_new
    v_tss_new = ((modmunselect!TSS * v_modflow) - (ttmunselect!TSS * v_default_TSS * v_ttfloor)) / v_flow_new
    v_tn_new = ((modmunselect!TN * v_modflow) - (ttmunselect!TN * v_default_TN * v_ttfloor)) / v_flow_new
    v_tp_new = ((modmunselect!TP * v_modflow) - (ttmunselect!TP * v_default_TP * v_ttfloor)) / v_flow_new
    v_fec_new = ((modmunselect!FEC * v_modflow) - (ttmunselect!FEC * v_default_FEC * v_ttfloor)) / v_flow_new

```

```
v_tkn_new = ((modmunselect!TKN * v_modflow) - (ttmunselect!TKN * v_default_TKN * v_ttflow)) /  
v_flow_new
```

End If

'QA new concentrations to see if any are < 0. If they are, set to default values based on treatment level.

```
If v_bod_new <= 0 Then
```

```
  If modmunselect!LEVEL = 2 Then
```

```
    v_bod_new = 143.5
```

```
  ElseIf modmunselect!LEVEL = 3 Then
```

```
    v_bod_new = 102.5
```

```
  ElseIf modmunselect!LEVEL = 4 Then
```

```
    v_bod_new = 16.4
```

```
  ElseIf modmunselect!LEVEL = 5 Then
```

```
    v_bod_new = 6.2
```

```
  ElseIf modmunselect!LEVEL = 6 Then
```

```
    v_bod_new = 4.1
```

```
  ElseIf modmunselect!LEVEL = 9 Then
```

```
    v_bod_new = 16.4
```

```
  End If
```

```
End If
```

```
If v_tss_new <= 0 Then
```

```
  If modmunselect!LEVEL = 2 Then
```

```
    v_tss_new = 107.5
```

```
  ElseIf modmunselect!LEVEL = 3 Then
```

```
    v_tss_new = 64.5
```

```
  ElseIf modmunselect!LEVEL = 4 Then
```

```
    v_tss_new = 17.2
```

```
  ElseIf modmunselect!LEVEL = 5 Then
```

```
    v_tss_new = 6.5
```

```
  ElseIf modmunselect!LEVEL = 6 Then
```

```
    v_tss_new = 4.3
```

```
  ElseIf modmunselect!LEVEL = 9 Then
```

```
    v_tss_new = 17.2
```

```
  End If
```

```
End If
```

```
If v_tn_new <= 0 Then
```

```
  If modmunselect!LEVEL = 2 Then
```

```
    v_tn_new = 23.4
```

```
  ElseIf modmunselect!LEVEL = 3 Then
```

```
    v_tn_new = 23.4
```

```
  ElseIf modmunselect!LEVEL = 4 Then
```

```
    v_tn_new = 18.3
```

```
  ElseIf modmunselect!LEVEL = 5 Then
```

```
    v_tn_new = 18.4
```

```
  ElseIf modmunselect!LEVEL = 6 Then
```

```
    v_tn_new = 14.4
```

```
  ElseIf modmunselect!LEVEL = 9 Then
```

```
    v_tn_new = 18.3
```

```
  End If
```

```
End If
```

```
If v_tp_new <= 0 Then
```

```
  If modmunselect!LEVEL = 2 Then
```

```
    v_tp_new = 5.2
```

```

ElseIf modmunselect!LEVEL = 3 Then
v_tp_new = 5.2
ElseIf modmunselect!LEVEL = 4 Then
v_tp_new = 2.5
ElseIf modmunselect!LEVEL = 5 Then
v_tp_new = 0.4
ElseIf modmunselect!LEVEL = 6 Then
v_tp_new = 0.4
ElseIf modmunselect!LEVEL = 9 Then
v_tp_new = 2.5
End If
End If
If v_fec_new <= 0 Then
If modmunselect!LEVEL = 2 Then
v_fec_new = 2060000
ElseIf modmunselect!LEVEL = 3 Then
v_fec_new = 2060000
ElseIf modmunselect!LEVEL = 4 Then
v_fec_new = 1580
ElseIf modmunselect!LEVEL = 5 Then
v_fec_new = 1580
ElseIf modmunselect!LEVEL = 6 Then
v_fec_new = 10
ElseIf modmunselect!LEVEL = 9 Then
v_fec_new = 1580
End If
End If
If v_tkn_new <= 0 Then
If modmunselect!LEVEL = 2 Then
v_tkn_new = 23.4

ElseIf modmunselect!LEVEL = 3 Then
v_tkn_new = 23.4
ElseIf modmunselect!LEVEL = 4 Then
v_tkn_new = 16.5
ElseIf modmunselect!LEVEL = 5 Then
v_tkn_new = 12.9
ElseIf modmunselect!LEVEL = 6 Then
v_tkn_new = 3.6
ElseIf modmunselect!LEVEL = 9 Then
v_tkn_new = 16.5
End If
End If
'Update the new row with the constant data to copied from the NWPCAM municipal select table
UpdqryStr = "UPDATE munselect SET " & _
"flow = " & v_flow_new & ", BOD = " & v_bod_new & ", TSS = " & v_tss_new & ", tn = " & v_tn_new
& ", TP = " & v_tp_new & ", FEC = " & v_fec_new & ", TKN = " & v_tkn_new & " " & _
"WHERE npdes = " & v_npdes & ";"
DoCmd.RunSQL (UpdqryStr)
ttmunselect.MoveNext
Loop
ttmunselect.Close

```

```
MsgBox i & " were updated"  
DoCmd.SetWarnings False  
End Sub
```

#### **Module 4: Update indirect facilities**

```
Sub UpdateTT Mun()
```

```
'Created 12/5/01 by Amy Miles
```

```
'Last modified 1/9/02 by Amy Miles
```

```
'Tables
```

```
    Dim dbs As Database
```

```
    Dim ttmunselect As Recordset
```

```
    Dim modmunselect As Recordset
```

```
    Set dbs = CurrentDb()
```

```
'Variables
```

```
    Dim i As Long
```

```
    Dim v_npdes As Variant
```

```
    Dim v_type As Variant
```

```
    Dim v_bod As Variant
```

```
    Dim v_tss As Variant
```

```
    Dim v_tn As Variant
```

```
    Dim v_tp As Variant
```

```
    Dim v_fec As Variant
```

```
    Dim v_tkn As Variant
```

```
    Dim v_ttfLOW
```

```
    Dim v_primary_BOD As Variant
```

```
    Dim v_primary_TSS As Variant
```

```
    Dim v_primary_TN As Variant
```

```
    Dim v_primary_TP As Variant
```

```
    Dim v_primary_FEC As Variant
```

```
    Dim v_primary_TKN As Variant
```

```
    Dim v_advprimary_BOD As Variant
```

```
    Dim v_advprimary_TSS As Variant
```

```
    Dim v_advprimary_TN As Variant
```

```
    Dim v_advprimary_TP As Variant
```

```
    Dim v_advprimary_FEC As Variant
```

```
    Dim v_advprimary_TKN As Variant
```

```
    Dim v_secondary_BOD As Variant
```

```
    Dim v_secondary_TSS As Variant
```

```
    Dim v_secondary_TN As Variant
```

```
    Dim v_secondary_TP As Variant
```

```
    Dim v_secondary_FEC As Variant
```

```
    Dim v_secondary_TKN As Variant
```

```
    Dim v_advwt1_BOD As Variant
```

```
    Dim v_advwt1_TSS As Variant
```

```
    Dim v_advwt1_TN As Variant
```

```
    Dim v_advwt1_TP As Variant
```

```
    Dim v_advwt1_FEC As Variant
```

```
    Dim v_advwt1_TKN As Variant
```

```
    Dim v_advwt2_BOD As Variant
```

Dim v\_advwt2\_TSS As Variant  
Dim v\_advwt2\_TN As Variant  
Dim v\_advwt2\_TP As Variant  
Dim v\_advwt2\_FEC As Variant  
Dim v\_advwt2\_TKN As Variant  
Dim v\_default\_BOD As Variant  
Dim v\_default\_TSS As Variant  
Dim v\_default\_TN As Variant  
Dim v\_default\_TP As Variant  
Dim v\_default\_FEC As Variant  
Dim v\_default\_TKN As Variant  
Dim v\_seqno As Variant  
Dim v\_mi As Variant  
Dim v\_do As Variant  
Dim v\_cbodtoubod As Variant  
Dim v\_psfbod As Variant  
Dim v\_psfstss As Variant  
Dim v\_cu As Variant  
Dim v\_seg As Variant  
Dim v\_name As Variant  
v\_primary\_BOD = 0.7  
v\_primary\_TSS = 0.5  
v\_primary\_TN = 0.78  
v\_primary\_TP = 0.87  
v\_primary\_FEC = 0.65  
v\_primary\_TKN = 0.78  
v\_advprimary\_BOD = 0.5  
v\_advprimary\_TSS = 0.3  
v\_advprimary\_TN = 0.78  
v\_advprimary\_TP = 0.87  
v\_advprimary\_FEC = 0.65  
v\_advprimary\_TKN = 0.78  
v\_secondary\_BOD = 0.08  
v\_secondary\_TSS = 0.08  
v\_secondary\_TN = 0.61  
v\_secondary\_TP = 0.42  
v\_secondary\_FEC = 0.0005  
v\_secondary\_TKN = 0.55  
v\_advwt1\_BOD = 0.03  
v\_advwt1\_TSS = 0.03  
v\_advwt1\_TN = 0.61  
v\_advwt1\_TP = 0.06  
v\_advwt1\_FEC = 0.0005  
v\_advwt1\_TKN = 0.43  
v\_advwt2\_BOD = 0.02  
v\_advwt2\_TSS = 0.02  
v\_advwt2\_TN = 0.48  
v\_advwt2\_TP = 0.06  
v\_advwt2\_FEC = 0.000032  
v\_advwt2\_TKN = 0.12  
v\_default\_BOD = 0.08  
v\_default\_TSS = 0.08

```

v_default_TN = 0.61
v_default_TP = 0.42
v_default_FEC = 0.0005
v_default_TKN = 0.55
'SQL query statement variables
  Dim TTselqryStr As String
  Dim UpdqryStr As String
  Dim SelqryStr As String
'Open TT Municipal Data
  TTselqryStr = "select * from TTIndirect where (option = 'BAT 4' Or option = 'PSES 1');"
  Set ttmunselect = dbs.OpenRecordset(TTselqryStr)
  DoCmd.SetWarnings False
  i = 0
  ttmunselect.MoveFirst
  Do Until ttmunselect.EOF
  i = i + 1
'Select Row in NWPCAM Model Data corresponding to TT data by NPDES number
  SelqryStr = "select * from munselect where npdes = " & ttmunselect!NPDES & ";"
  Set modmunselect = dbs.OpenRecordset(SelqryStr)
'Set variable from TT data to be moved into NWPCAM Industrial Table
  v_npdes = ttmunselect!NPDES
  v_type = "INDIRECT"
'Set Flow variables to be used in calculating loads
  v_ttflow = ttmunselect!Flow 'if TT flows are in gpd, need to add conversion factor
If modmunselect!LEVEL = 2 Then
'Calculate loads for both TT and NWPCAM municipal data
  v_bod = ttmunselect!BOD * v_primary_BOD
  v_tss = ttmunselect!TSS * v_primary_TSS
  v_tn = ttmunselect!TN * v_primary_TN
  v_tp = ttmunselect!TP * v_primary_TP
  v_fec = ttmunselect!FEC * v_primary_FEC
  v_tkn = ttmunselect!TKN * v_primary_TKN
ElseIf modmunselect!LEVEL = 3 Then
'Calculate loads for both TT and NWPCAM municipal data
  v_bod = ttmunselect!BOD * v_advprimary_BOD
  v_tss = ttmunselect!TSS * v_advprimary_TSS
  v_tn = ttmunselect!TN * v_advprimary_TN
  v_tp = ttmunselect!TP * v_advprimary_TP
  v_fec = ttmunselect!FEC * v_advprimary_FEC
  v_tkn = ttmunselect!TKN * v_advprimary_TKN
ElseIf modmunselect!LEVEL = 4 Then
'Calculate loads for both TT and NWPCAM municipal data
  v_bod = ttmunselect!BOD * v_secondary_BOD
  v_tss = ttmunselect!TSS * v_secondary_TSS
  v_tn = ttmunselect!TN * v_secondary_TN
  v_tp = ttmunselect!TP * v_secondary_TP
  v_fec = ttmunselect!FEC * v_secondary_FEC
  v_tkn = ttmunselect!TKN * v_secondary_TKN
ElseIf modmunselect!LEVEL = 5 Then
'Calculate loads for both TT and NWPCAM municipal data
  v_bod = ttmunselect!BOD * v_advwtl_BOD
  v_tss = ttmunselect!TSS * v_advwtl_TSS

```

```

v_tn = ttmunselect!TN * v_advwt1_TN
v_tp = ttmunselect!TP * v_advwt1_TP
v_fec = ttmunselect!FEC * v_advwt1_FEC
v_tkn = ttmunselect!TKN * v_advwt1_TKN
ElseIf modmunselect!LEVEL = 6 Then
'Calculate loads for both TT and NWPCAM municipal data
v_bod = ttmunselect!BOD * v_advwt2_BOD
v_tss = ttmunselect!TSS * v_advwt2_TSS
v_tn = ttmunselect!TN * v_advwt2_TN
v_tp = ttmunselect!TP * v_advwt2_TP
v_fec = ttmunselect!FEC * v_advwt2_FEC
v_tkn = ttmunselect!TKN * v_advwt2_TKN
ElseIf modmunselect!LEVEL = 9 Then
'Calculate concentrations for both TT and NWPCAM municipal data
v_bod = ttmunselect!BOD * v_default_BOD
v_tss = ttmunselect!TSS * v_default_TSS
v_tn = ttmunselect!TN * v_default_TN
v_tp = ttmunselect!TP * v_default_TP
v_fec = ttmunselect!FEC * v_default_FEC
v_tkn = ttmunselect!TKN * v_default_TKN
End If
'Update NWPCAM industrial select table with TT values by corresponding NPDES
UpdqryStr = "UPDATE indselect SET " & _
"flow = " & v_tflow & ", bod = " & v_bod & ", tss = " & v_tss & ", tn = " & v_tn & ", tp = " & v_tp & ",
fec = " & v_fec & ", tkn = " & v_tkn & " " & _
"WHERE npdes = " & v_npdes & ";"
DoCmd.RunSQL (UpdqryStr)
ttmunselect.MoveNext
Loop
ttmunselect.Close
MsgBox i & " were updated"
DoCmd.SetWarnings False
End Sub

```