6.0 Model Operation

The State Model is structured to perform one of four (4) interrelated activities:

> ***Base Flows***
>
> ***Simulate***
>
> ***Report***
>
> ***Data Check***

For a description of each option, see Section 3.3 of this documentation. The model can be executed using either the StateMod Graphical User Interface available from the CDSS website or via a command line argument. If a command line argument is used, enter the model name and option as follows:

```
        statemod [file] [options]

where:
  file = base file name of the simulation

  Options (1) =
        -v or -version          Print the program version
        -u or -update           Print recent updates
        -base or -baseflow      Perform baseflow option
        -basex or -baseflowx    Perform baseflow option for ungaged areas only.
                        Note: This option assumes gaged flows are natural flows.
        -sim or -simulate       Perform simulate option
                                  with standard reports
        -simx or -simulatex     Perform simulate option
                                   without standard reports

        -rep or -report [options2] Perform report option
        -chk or -check          Perform data check option
```

(1) If omitted, the PC version of the model defaults to requesting the desired option from the screen, while the Unix version prints an error message.

Except for the -report option, each of the above requests are straight forward and require only one command line argument. The -report option allows for one or two additional parameters in order to request the desired report and, as appropriate, desired station without requiring data from the screen by the user. Note, except for the standard output request (-std), the argument name is the same as the output file requested. Following are examples of the report option with second and third parameters supplies:

```
Argument (1)                    Result

-report -xnm                    Detailed node accounting for all years
                                   and Detailed node accounting average
-report -xwb                    Water Balance
-report -xwr                    Water Right List sorted by basin rank
-report -xdg [-station id] Direct Diversion, Instream Diversion and
                                   Gage graph file
-report -xrg [-station id] Reservoir graph file
-report -xwg [-station id] Well graph file

-report -xdc                    Diversion comparison file
-report -xrc                    Reservoir comparison file
-report -xwc                    Well comparison file

-report -xsc                    Stream flow gage comparison file
-report -xcu                    Diversions by ditch formatted for the CU
                                   model
-report -xst                    Standard diversion (*.xdd) and reservoir
                                   (*.xre) output

-report -xsp                    Special parameter report (2).
```

(1) If omitted, the PC version of the model defaults to request the desired option from the screen, while the Unix version prints an error message.

(2) For the special parameter report the output type (e.g. diversion, reservoir, well, stream gage or All) and parameter (e.g. River Outflow) must be specified in the output request file.