



THE WASHINGTON DEPARTMENT OF ECOLOGY MAINTAINS A NETWORK OF 6 STREAM GAGES WITHIN THE CHEHALIS WATERSHED IN SUPPORT OF THE CHEHALIS BASIN FLOOD RESPONSE PROJECT. ALL OF THE GAGES ARE CURRENTLY BASED ON AN ARBITRARY DATUM ESTABLISHED AT THE TIME OF INSTALLATION.

- 1.) BLACK RIVER AT THE HIGHWAY 12 BRIDGE (23E060).**
- 2.) SALZER CREEK AT AIRPORT ROAD (23H060).**
- 3.) BUNKER CREEK AT CERES HILL ROAD (23I070).**
- 4.) STEARNS CREEK AT TWIN OAKS ROAD (23J070).**
- 5.) SOUTH FORK CHEHALIS RIVER AT THE HIGHWAY 6 BRIDGE (23K060).**
- 6.) DILLENBAUGH CREEK AT RIVERSIDE DRIVE (23L070).**

IF ECOLOGY ELECTS TO CONVERT THE 6 STREAM GAGES FROM A ARBITRARY TO DATUM TO THE NAVD88 DATUM, WHAT WOULD BE REQUIRED?

- **1.) ESTABLISHED SURVEY MONUMENTS OF KNOWN ELEVATION BASED ON DATUM NAVD88 WOULD HAVE TO BE LOCATED IN REASONABLE PROXIMITY TO THE CURRENT ECOLOGY STREAM GAGES.**
- **2.) LEVELS WOULD HAVE TO BE RUN FROM THE MONUMENT TO THE GAGE AND BACK TO THE MONUMENT IN ORDER TO DETERMINE THE NAVD88 BASED ELEVATION OF THE PRIMARY GAGE INDEX (PGI) .**
- **3.) ALL CONTINUOUS STAGE DATA, DISCHARGE MEASUREMENTS, GAGE INDEX OBSERVATIONS, AND RATING CURVES WOULD HAVE TO BE CONVERTED TO NAVD88 BASED VALUES.**
- **4.) WEB BASED GRAPHICS DEPICTING ECOLOGY STREAM DISCHARGE DATA WOULD BE IMPACTED. THE POTENTIAL IMPACTS OF THE CHANGE WOULD HAVE TO BE INVESTIGATED BEFORE THE CONVERSION.**

CURRENT STATUS OF CONVERTING ECOLOGY'S STREAM GAGES TO NAVD88 DATUM.

- **MONUMENTS ESTABLISHED AND MAINTAINED BY THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT) HAVE BEEN LOCATED IN GOOD CONDITION AND IN REASONABLE PROXIMITY TO 5 OF THE 6 ECOLOGY GAGES. THE DISTANCE FROM THE NEAREST MONUMENT TO THE GAGE ON BUNKER CREEK IS OVER 2 MILES.**



SALZER CREEK MONUMENT



STEARNS CREEK MONUMENT



SOUTH FORK CHEHALIS RIVER MONUMENT



DILLENBAUGH CREEK MONUMENT



BLACK RIVER MONUMENT



IF APPROVED, THE NEXT STEPS FOR ECOLOGY TO CONVERT 5 OF THE 6 STREAM GAGES TO THE NAVD88 DATUM ARE:

- **1.) INVESTIGATE THE IMPACTS TO THE STREAM FLOW MONITORING WEBPAGE GRAPHICS/DATA DISPLAY INTERFACE USING A TEST CASE SCENARIO BEFORE THE CONVERSION IS IMPLEMENTED.**
- **2.) CONDUCT THE SURVEYS. THE ESTIMATED TIME TO CONDUCT EACH SURVEY VARIES BUT RANGES FROM 4 TO 8 HOURS DEPENDING UPON CONDITIONS. TWO SKILLED, QUALIFIED PEOPLE ARE REQUIRED.**
- **3.) CONVERT ALL CONTINUOUS STAGE DATA, RATING CURVES, PRIMARY GAGE INDEX OBSERVATIONS, AND DISCRETE DISCHARGE MEASUREMENTS TO VALUES BASED ON NAVD88 ELEVATIONS.**

FRESHWATER MUSSEL COMMONLY ENCOUNTERED AT THE SOUTH FORK CHEHALIS RIVER GAGING STATION



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