Goals for Sustainable Fisheries

Fisheries and Oceans Canada has identified seven measurable and achievable goals for sustainable fisheries. These are as follows:

1. ***Avoid irreversible human induced alterations to fish habitat.***
   Alterations to fish habitat that reduce its capacity to produce fish populations which cannot be reversed within a human generation are to be avoided.

2. ***Maintain the genetic diversity of fish stocks.***
   No fish stock, regardless of its size, will be arbitrarily eliminated and, where possible efforts to conserve and rebuild small and remnant stocks will be made.

3. ***Maintain the physical and biological diversity of fish habitats.***
   Physical and biological diversity of habitat provides fish with an opportunity to adopt alternative life history strategies, thereby providing protection from natural habitat variation.

Lower Fraser Valley Streams Strategic Review 1999 Pages 122-125

4. ***Provide a net gain in productive capacity through proper habitat management.***
   Ecological limits control productive capacity of a stream system. Natural and self-sustaining production systems are preferred over semi-natural, artificial or non self-sustaining systems.

5. ***Maximize the value of commercial, sport and aboriginal fisheries.***
   All market and value added values are to be considered and measured in a way that permits comparison of competing users of the fisheries resources.

6. ***Maximize the non comsumptive values of the fisheries resource.***
   Intangible, cultural and social values associated with fishery resources are to be given due consideration in decision making.

7. ***Distribute fishery net benefits in a fair and equitable manner.***
   Local communities are to be involved in the decision making process pertaining to habitat conservation, enhancement, and restoration, and particularly who is to benefit and who pays.

West Creek

Watershed Code: 100-0416-000-000-000-000-000-000-000-000-000-000-000
RAB Code: 00-0330
TRIM Map: 92G008 and 92G018

TREND

Declining

STATUS:

Endangered - Channelization, riparian removal, and agricultural encroachment have impacted West Creek.

Watershed Planning Issues

Management Concerns

- Removal of riparian vegetation in the lower reaches is accelerating bank erosion.
- Water withdrawals for agriculture significantly aggravate summer low flows.
- Upstream reaches do dry out during the summer. Less water is available now to these reaches with the removal of beaver dams in the headwater area through the development of Gloucester Estates industrial area. Continued development activity and ditching is reducing remaining wetlands in the headwater area.
- Concerns have been identified about effluent from West Creek Trout Farm, and non-point discharges from mink farms in the watershed.
- A combination of beaver dams and culverts causes passage problems at 272nd St.
- Unauthorized stream channelization has occurred between 80th Ave. and 84th Ave.
- Reclamation of floodplain near the stream by farmers is resulting in a loss of fish habitat.

Management Prescriptions

- Development of groundwater-fed spawning channels for chum may be appropriate in lower reaches where pool creation could be explored in upstream areas.

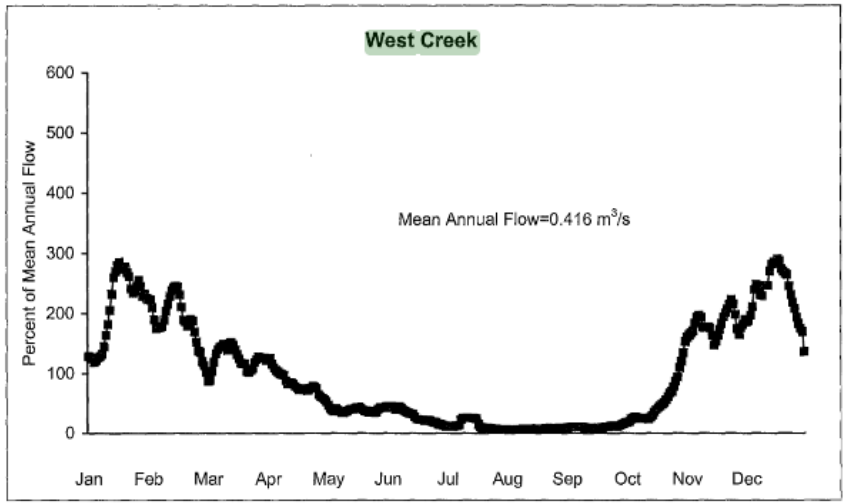
Strategic Review Chapter 2 – Fraser River South Shore Tributaries

- In that the Gloucester Estates development has proceeded without proper assessment of environmental impacts, and without plans to prevent damage to the stream, an enhanced restoration and protection plan must be addressed for this property.
- Runoff must be controlled for the development at 72nd Ave. and 256th St., as this is the most important section of the system for coho production.
- A moratorium on water licenses and flow agreements that provide minimum instream flows for fish is needed in order to maintain adequate summer flows. Water monitoring and channel improvements are required.
- Municipal policies, bylaws or development permit area designations which prevent watercourse contamination, restrict riparian vegetation removal, improve erosion control, reduce effective impervious areas and maintain unobstructed fish passage are required.
- Education and stewardship initiatives which focus on riparian protection, improving water quality, preventing stream encroachments, managing access, discouraging unauthorized instream works, community outreach, and increasing public awareness about the fisheries values of this system are required.

https://waves-vagues.dfo-mpo.gc.ca/library-bibliotheque/240006.pdf

HYDROGRAPHS

The mean annual hydrograph is an average of the flow recorded on each day for all complete years of record. The mean annual flow is noted on the hydrograph; this, together with the percent values on the vertical axis, allows estimation of the flows for various times of the year. For unguaged streams, the mean annual hydrograph is transferred from a hydrologically similar, nearby stream



https://waves-vagues.dfo-mpo.gc.ca/library-bibliotheque/240006.pdf

ESCAPEMENT

Close monitoring of individual systems by DFO has declined over the past years. Many areas have stopped doing fish counts on stream systems since the mid 1980s to the early 1990s due to decreased resources. The current approach is to use key indicator streams (counting fences have been constructed on some of these), which are used to indicate escapement trends for streams in the area with similar characteristics.
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