

Coquitlam River Watershed

The Story of the River, Salmon and People and their Common History

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Where we've been

Where we are today

Where we want to go tomorrow

Coquitlam River Watershed

The End of Salmon: The Beginning of Understanding

The 1970's began:

An era of global understanding about the finite limits to this earth and the natural systems that support all life

The age of stewardship and respect for the natural world began to rise again after a century of denial

By 1969, less than 50 salmon returned to the Coquitlam River

The end of the 10,000 year long relationship between the river, salmon and people was in sight



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An Honourable Effort

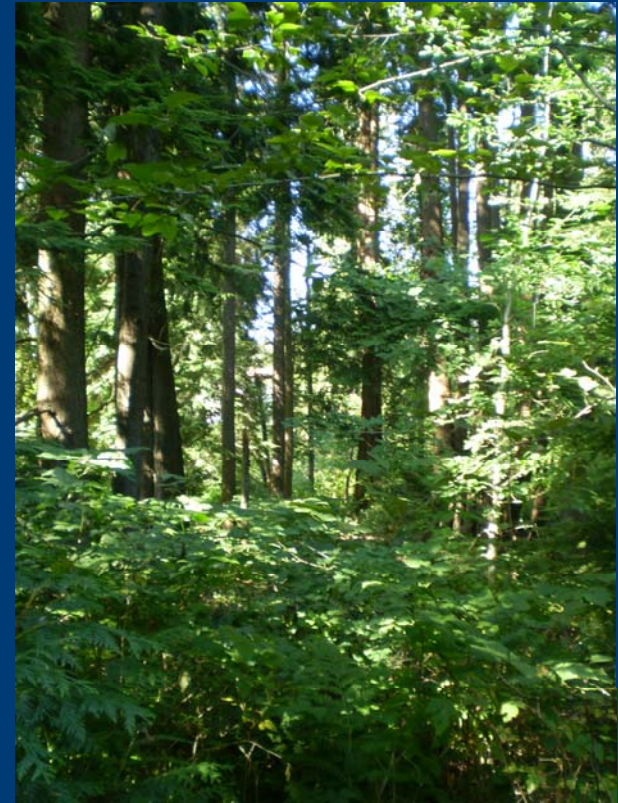
The late 1960's saw the first restrictions on removing gravel from salmon streams

Gravel mines moved from river lowlands to upper river benches over the past three decades

Sediment loads from mines in the 1970's were measured at levels many times higher than those measured today as they work toward reducing their environmental impact

The 1970's brought in regulations concerning land developments around salmon streams

The City of Coquitlam has spent the last thirty year buying important riparian properties along the river



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An Honourable Effort

Beginning in the early 1990's BC Hydro undertook major reviews of their dam operations which have increased river flows up until this past year

Gillnet fisheries in the Fraser River and ocean were first reduced then significantly curtailed through the decades up to today

Kwikwetlem First Nation is now formally recognized as having a long standing interest in the health of the watershed



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An Honourable Effort

From a few active stewardship groups concerned about fish and wildlife in the 1970's there were up to 30 environmental interest groups involved in the recent BC Hydro Water Use Plan process

Streamkeepers, enhancement and stewardship groups actively work on projects throughout the watershed with all levels of government for the benefit of salmon in the watershed

All levels of government are recognizing the critical importance of cooperative watershed planning to protect environmental, human and economic health of communities



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An Honourable Effort

Coquitlam River Dam Fish Flow Release

Swaboda Spawning Channel and Grants Tomb Pond Upgrade

Salmon Into Coquitlam Lake Committee

Orr Creek Slide Remediation

Orr Creek Pond Rehabilitation

Archery Pond Rehabilitation

David Avenue Bridge Habitat Compensation

Oxbow Lake and Side channel Rehabilitation

Grist Creek Restoration

Maple Creek Well and Wetland Enhancement

Colony Farm Sheep Paddock Enhancement

Riverview Creek Restoration

Many more good works....

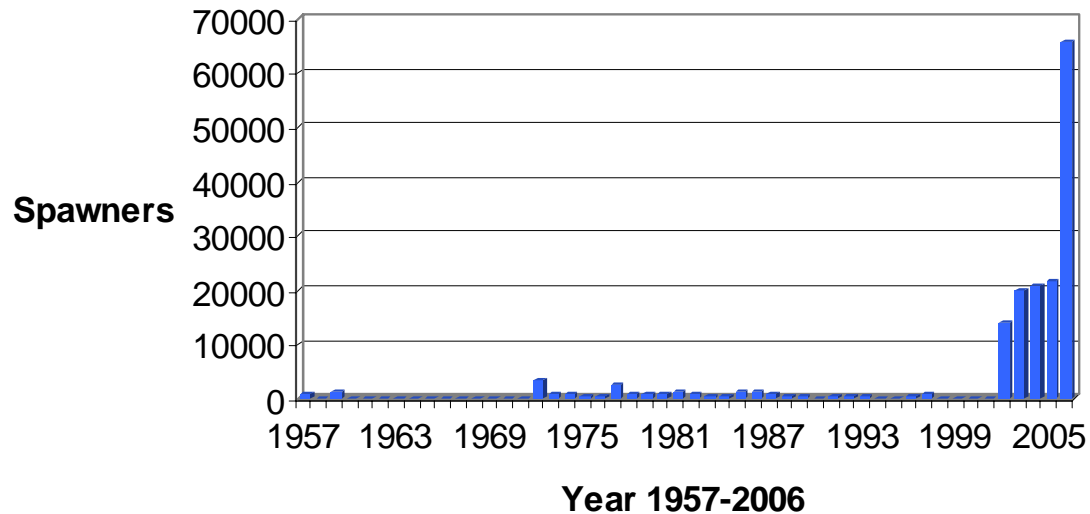
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Chum Salmon

Chum salmon have made a remarkable recovery in the last decade



Coquitlam R. Chum Escapements



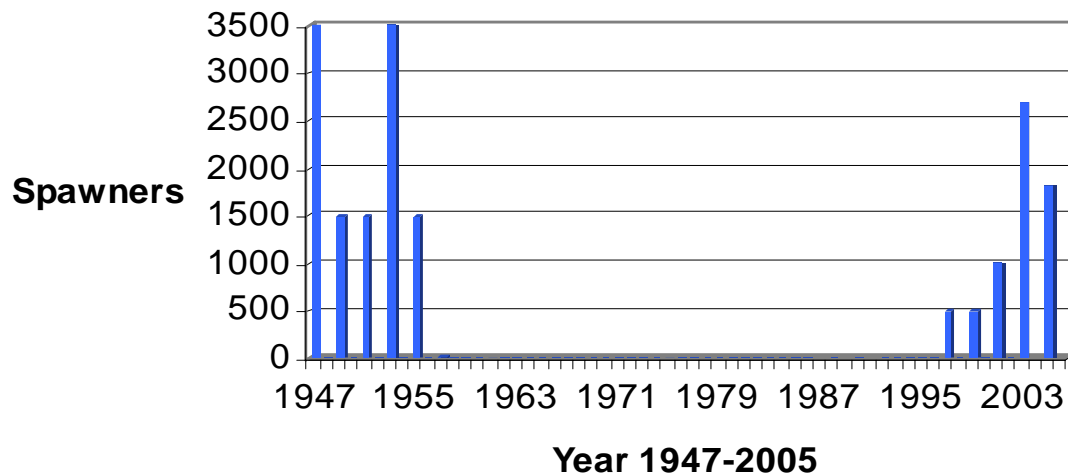
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Pink Salmon

Pink salmon went extinct after 1957 and a hatchery program started in 1995 using Harrison River pink salmon eggs re-started a pink salmon run in 1997



Coquitlam R. Pink Escapements



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Chinook Salmon

Reduced flows and loss of summer access to the lake doomed Coquitlam chinook

Recovery began when chinook salmon fingerlings from Chilliwack River released into Coquitlam River first time in late 1990's with annual release of 300,000 chinook salmon fingerlings

In 2008, over 500 hatchery produced chinook returned to spawn throughout the Coquitlam River



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Coho Salmon

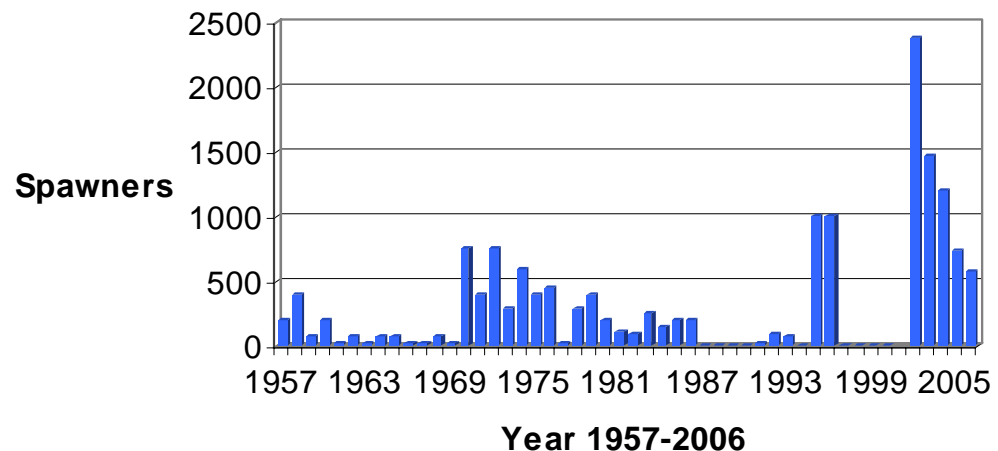
Stream protection, flow improvement, off channel habitat restoration and community hatcheries have revived coho salmon runs to the river

Even with historically poor marine conditions coho salmon have strengthened to levels not seen in a generation

Over 70% of Fraser River watershed coho salmon live in the rivers downstream of Hope like the Coquitlam River



Coquitlam R. Coho Escapements



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Sockeye Salmon

Kokanee salmon fingerlings released from Coquitlam Lake in late 2005 and returned to river as adult sockeye salmon in 2007 and 2008

Sockeye 2008 spawners were released into Coquitlam Lake for the first time since dam construction



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Coho Habitat Enhancement

Over 30,000 square metres of critical off channel habitat for coho salmon has been constructed since the first project was begun in 1993

Constructed off channel ponds now support around 50% of the coho salmon smolts produced from the watershed

This has led to a doubling of the number of wild coho salmon produced by the Coquitlam River over the past decade

The number of coho spawners now range from **23-63 females/km** which is more than the **19 females/km** predicted to ensure a full utilization of all rearing habitat



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Summary

Key summary points are:

- The watershed has been subjected to a number of significant impacts over the past 100 years
- Salmon restoration and enhancement efforts have resulted in significant improvements to salmon stocks to levels not seen in a generation
- Target recovery levels are:
 - Coho Salmon – 1400 smolts / km
 - Pink Salmon – 15,000 adult spawners;
 - Chinook Salmon – 500 naturally produced adult spawners
 - Chum Salmon – 10,000 adult spawners
- The return of small numbers of sockeye salmon to the Coquitlam River in 2007 and 2008 holds promise that this stock may be some day restored through a collaborative restoration effort
- Continued recovery of salmon stocks will require a focused and coordinated effort by all stakeholders

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How can we use lessons from the past to shape the future?

Can our watershed be better tomorrow than it is today?

Are we up to the task?



Coquitlam River Watershed

If we don't understand our past and how our actions have affected salmon populations in the watershed... then we run the risk of repeating past mistakes and not learning from past successes.



OR CREEK BIOENGINEERING



An As-Built Report Submitted To
the Ministry of Environment, Lands
and Parks

By
Greater Vancouver Water District
Watershed Management Division
April, 1999