

ENVIRONMENT CANADA
PACIFIC & YUKON REGION

**Fraser Basin Contaminated Sites
Progress Report 1994-1995**

Environmental Assessment and Waste Prevention Section

Fraser Basin Contaminated Sites Progress Report 1994-1995

1.0 Introduction

Pollution abatement is a vital component of the Fraser River Action Plan (FRAP). Its overall goals, to be achieved with the help of the province, are to reduce by 30% the discharge of environmentally disruptive effluents entering the basin by 1997, and to virtually eliminate by the year 2000 the release of persistent toxic substances into the waters of the basin.

To address these goals, FRAP's pollution abatement program has focused its efforts on identifying and reducing contaminants entering the Fraser river in six main areas: industrial discharges, municipal discharges and urban runoff, agricultural runoff, groundwater contamination, airborne contaminants and contaminated sites.

Specifically, FRAP calls for the reduction in contaminant loading from pollutants entering the river from industrial and domestic point and non-point sources, including contaminated sites. This is achieved through the identification and prioritization of sources and the development and implementation of suitable abatement and prevention measures.

The rapidly expanding identification, multi-phased investigation, and remediation of contaminated sites in British Columbia combined with associated regulatory information requirements have created a need for comprehensive information management system.

In November 28, 1994 the Fraser Pollution Abatement Office (FPAO) of Environment Canada and Contaminated Sites Remediation and Assessment Section (CSRAS) of the British Columbia Ministry of Environment, Lands and Parks entered into an agreement to collaborate in the development and completion of the BC Environment Site Information System (SITE). SITE is designed to assist, monitor and manage contaminated sites data, prioritize remedial actions and form the basis of the "Site Registry" pursuant to proposed regulations of the Provincial Waste Management Act (Bill 26).

Once established, SITE will contain information useful to FRAP's overall objective of inventorying contaminant sources potentially impacting the Fraser River system. The following report is based on data provided by BC Environment consisting of the *provincial* sites presently loaded onto the Site Information System current to October 4, 1995.

2.0 Status

Based on the October 4, 1995 data reviewed by Environment Canada, there are a total of 2866 non-federal contaminated sites (land parcels) registered in the SITE database and 342 federal contaminated sites listed in the Federal Sites Requiring Further Assessment inventory. This totals over 3000 sites considered to be contaminated in British Columbia existing primarily in the Lower Mainland or other locations in the Fraser Basin. Furthermore, of the 2866 contaminated provincial sites, 2699 are located in the Fraser Basin system.

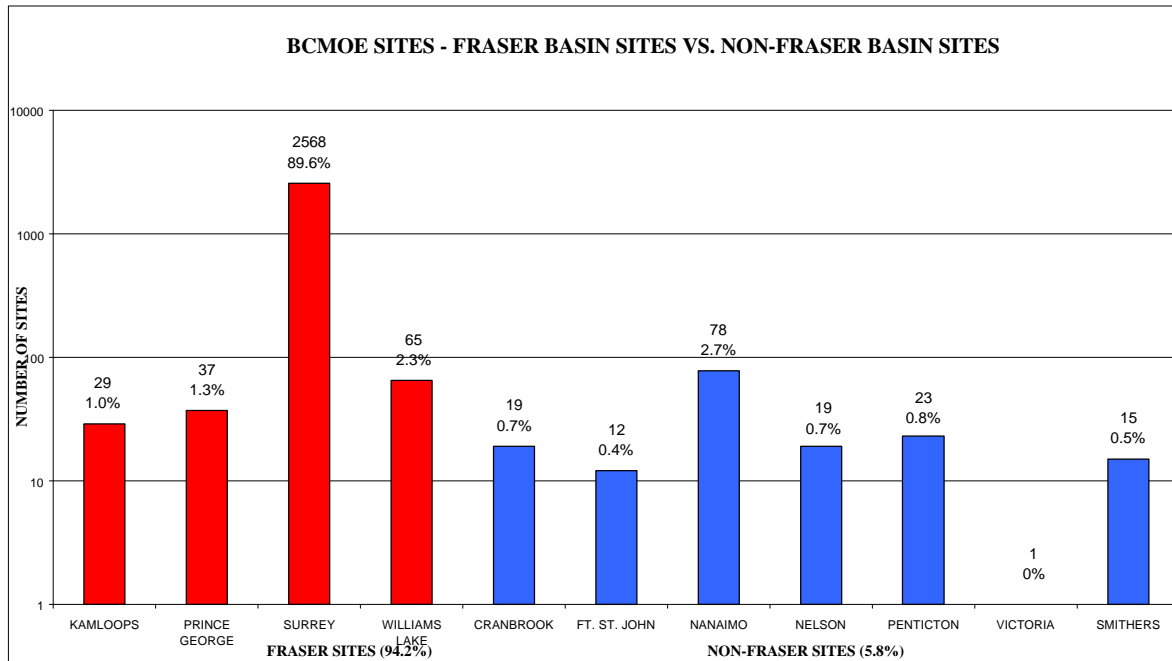


Figure 1. Number and percentage of known provincial contaminated sites per BC region within and external to the Fraser Basin based on October 1995 data.

There are currently 1173 contaminated sites which have developed and implemented a remediation plan and 339 which have undergone complete remediation. These figures will increase as sites are assessed and cleaned up.

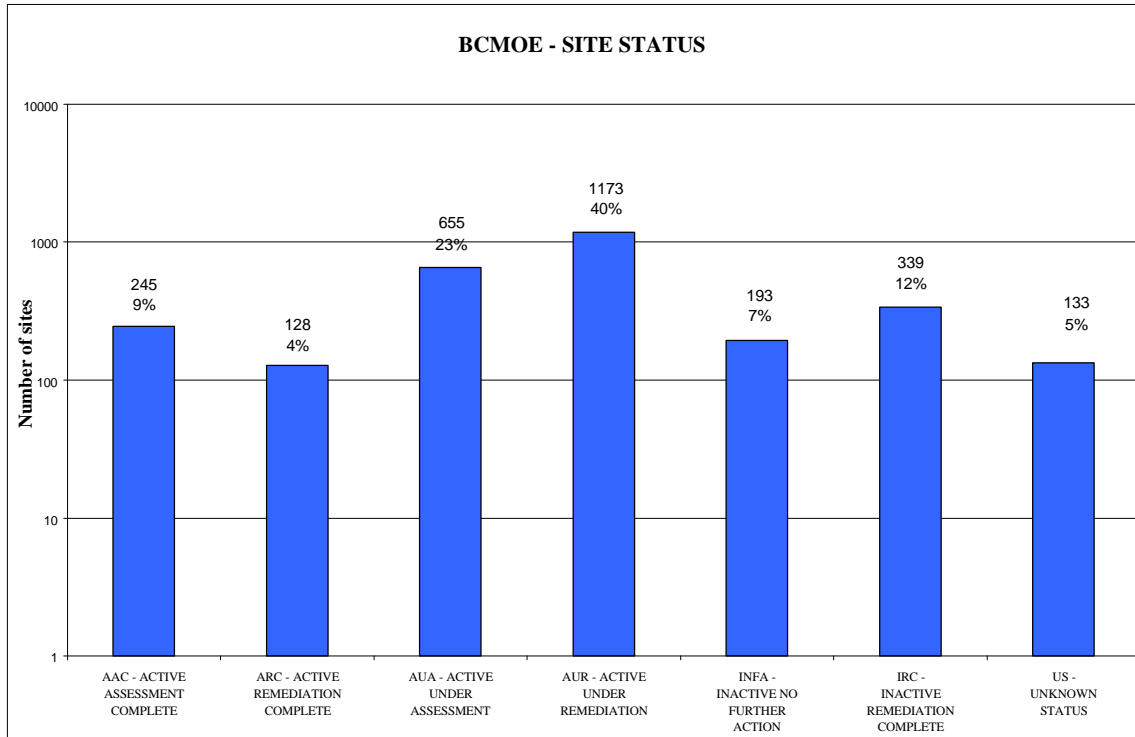


Figure 2. Status of provincial sites assessed or remediated based on October 1995 data.

** See Glossary of Terms for Site Status definitions*

Approximately 130 provincial contaminated sites have been classified according to land size and complexity of contamination following the implementation of Bill 26. They have been categorized in order to facilitate assessment and reduce remediation costs in response to the Fee Regulation.

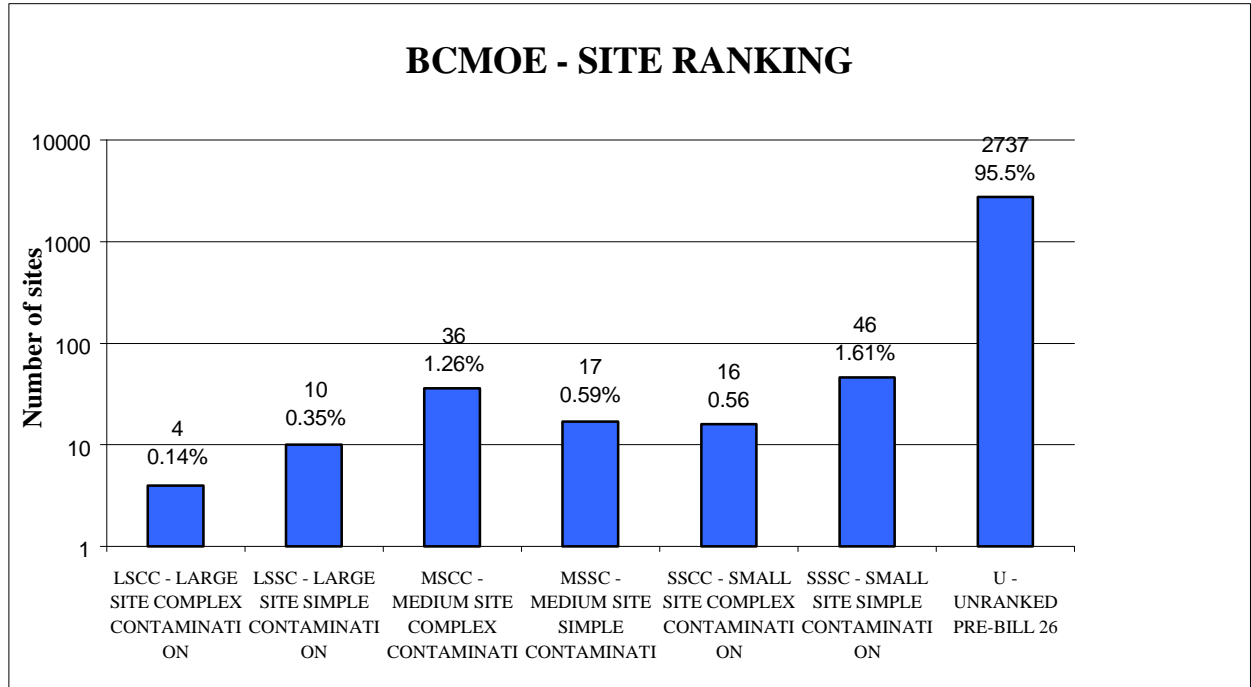


Figure 3. Ranking of provincial sites according to land size and complexity of contamination based October on 1995 data.

3.0 Summary

SITE enables contaminated sites information such as the status, site participants, description and exact location of contamination to be retrieved and reviewed. Approximately 175 *federal* contaminated sites will be entered onto SITE by April 30, 1996. This ongoing process is continuously updated by BC Environment and Environment Canada as the status of each contaminated site progresses with assessment and remediation.

Glossary of Terms as Defined in the Site Information System Users Guide

(AAC) ACTIVE-ASSESSMENT COMPLETE - This status denotes the point at which BCE feels that a site, or the contaminated 'area of concern' on a site has been adequately investigated to decide whether or not remediation is necessary, and if so, enough assessment information is present to support the remedial approach chosen. Often sites will remain in this status for a considerable period of time until the most cost effective remedial plan is developed.

(ARC) ACTIVE-REMEDICATION COMPLETE - This status generally applies when a Risk Assessment/Risk Management (RA/RM) approach is used to remediate a site. The risk management 'facilities' have been constructed as required to minimize risk. All appropriate permits and approvals have been obtained and a 'conditional' Letter of Comfort or Conditional Certificate of Compliance (under Bill 26) has been issued. 'Active' refers to the ongoing requirements (i.e. monitoring, maintenance) associated with the RA/RM remedial approach.

(AUA) ACTIVE-UNDER ASSESSMENT - The site is currently undergoing investigation or an environmental assessment of some kind.

(AUR) ACTIVE-UNDER REMEDIATION - A remediation plan has been developed and implemented at the site, or remediation is simply known by BCE personnel to be occurring on the site. No further information has been submitted to BCE to indicate that remediation is complete (i.e. to change its status).

(INFA) INACTIVE-NO FURTHER ACTION - A site which may not have gone through the entire remedial process; however, BCE has no additional requirements at this time. For example, BCE may accept a site's state of environmental quality for its proposed use or circumstance, but there may not be a specific reference to an acceptable criteria guideline. Essentially by mutual agreement, no further action is required of either BCE or the site owner/operator.

(IRC) INACTIVE-REMEDICATION COMPLETE - A site where remediation is complete, a "Letter of Comfort" or "Confirmation of Compliance (under Bill 26) has been issued, and there are no outstanding permit or other requirements (e.g. on-going monitoring).

(US) UNKNOWN STATUS - Often a site exists which is known to BCE personnel, but because of circumstances (e.g. lack of reporting), the remedial status is 'unknown' to BC Environment.