

**Report for January 2006 G-NRUF – Canadian NPAs
to the
Canadian Steering Committee on Numbering (CSCN)**

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SAIC Canada

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1. Purpose of G-NRUF

The purpose of the General Numbering Resource Utilization Forecast (G-NRUF) is to provide an annual forecast to aid in projecting Numbering Plan Area (NPA) and North American Numbering Plan (NANP) exhaust. The G-NRUF process requires current and prospective Code Holders to submit actual and forecasted annual data regarding their current and prospective future use of Central Office (CO) Codes to the Canadian Numbering Administrator (CNA) on an annual basis.

The CNA has prepared this report in accordance with the Canadian Numbering Resource Utilization Forecast Guideline (C-NRUF) (the Guideline) approved by the Canadian Radio-television and Telecommunications Commission (CRTC) on 12 July 2004 in Telecom Decision CRTC 2004-45.

Included as attachments to this report are:

- Historical NRUF Actual vs Forecast Data;
- 2006 G-NRUF Aggregate Results;
- Quantity of CNA CO Codes as of 1 January 2006;
- Historical G-NRUF Graphs for Canadian NPAs; and
- CSCN Letter dated 1 November 2005 (see section 7).

2. High Level Summary

The results from the 2006 G-NRUF are difficult to compare with the 2005 G-NRUF results since various Telecommunications Service Providers (TSPs) have submitted to the CNA a set of data that is different from the 2005 data. The CNA has verified the input from various TSPs and the variance from previous years' input can be rationalized.

Specific significant changes are listed below:

- NPA 204 Projected Exhaust Date is now forecast for June 2020, which moves the Exhaust Date in by twenty (20) years from the 2005 G-NRUF result of October 2040, primarily as a result of increased forecast demand in the area.
- NPA 250 Projected Exhaust Date is now forecast for April 2010, which moves the Exhaust Date out by almost five (5) months from the 2005 G-NRUF result of November 2009, as a result of a change in forecast demand in the area.
- NPA 403 Projected Exhaust Date is now forecast for March 2011, which moves the Exhaust Date in by six (6) months from the 2005 G-NRUF result of September 2011, as a result of increased forecast demand in the area.
- NPA 416/647 Projected Exhaust Date is now forecast for June 2016, which moves the Exhaust Date out by almost two (2) years from the 2005 G-NRUF result of March 2018, primarily as a result of increased forecast demand in the area.

- NPA 418 Projected Exhaust Date is now forecast for December 2013, which moves the Exhaust Date in by over eighteen (18) months from the 2005 G-NRUF result of June 2015, primarily as a result of increased forecast demand in the area.
- NPA 778 Projected Exhaust Date is now forecast for June 2023, which moves the Exhaust Date out by almost three (3) years from the 2005 G-NRUF result of September 2020, primarily as a result of decreased forecast demand in the area.
- NPA 780 Projected Exhaust Date is now forecast for February 2013, which moves the Exhaust Date in by almost two (2) years from the 2005 G-NRUF result of January 2015, primarily as a result of increased forecast demand in the area.
- NPA 902 Projected Exhaust Date is now forecast for February 2015, which moves the Exhaust Date in by eight (8) months from the 2005 G-NRUF result of October 2015, primarily as a result of increased forecast demand in the area.

NPA's in or entering Relief Planning

NPA	2006 G-NRUF View	2005 G-NRUF View	Remarks
250	Apr. 2010	Nov. 2009	In Relief Planning
403	Mar. 2011	Sep. 2011	In Relief Planning
514	Feb. 2009	Mar. 2009	NPA 438 Distributed Overlay (4 Nov. 2006)
519	Jan. 2007	Nov. 2007	NPA 226 Distributed Overlay (21 Oct. 2006) - Jeopardy
613 ¹	May 2014	Oct. 2015	10-D dialing (28 Oct. 2006)
780	Feb. 2013	Jan. 2015	Out of Relief Planning
819 ¹	Mar. 2027	Aug. 2027	10-D dialing (28 Oct. 2006)

1 This projection is based on the use of assignment pools developed by the CNA to meet the requirements of the Special Central Office Code Assignment Practices for NPAs 613 and 819 and the implementation of Phase 1 Relief in the fourth quarter of 2006.

3. Current G-NRUF and Past G-COCUS Projected Exhaust Dates

NPA	LOCATION	2002	2003	2004	2005	2006
204	Manitoba	Nov. 2009	Dec. 2016	Nov. 2023	> 20 years	Jun. 2020
250	BC (Island & Interior)	Sep. 2009	Apr. 2012	May 2009	Nov. 2009	Apr. 2010
306	Saskatchewan	Dec. 2021	> 20 years	> 20 years	> 20 years	> 20 years
403	S. Alberta	Apr. 2010	Jul. 2014	Sep. 2009	Sep. 2011	Mar. 2011
416 / 647	Toronto	Aug. 2012	Jun. 2016	May 2014 Nov. 2023	Mar. 2018	Jun. 2016
418	N. E. Quebec	May 2013	Jul. 2011	Mar. 2013	Jun. 2015	Dec. 2013
450	Montreal Fringe	May 2030	> 20 years	Apr. 2025	> 20 years	Oct. 2019
506	New Brunswick	Aug. 2047	> 20 years	> 20 years	> 20 years	Aug. 2019
514 / 438	Montreal	Apr. 2006	Jul. 2007, Dec. 2022	Oct. 2007 Jul. 2023	Mar. 2009	Feb. 2009
519 / 226	S. Ontario	Nov. 2006	Dec. 2007	Oct. 2007	Nov. 2007	Jan. 2007
604	Vancouver area	Nov. 2021	> 20 years	> 20 years	> 20 years	> 20 years
613	Ottawa area	Dec. 2013	Dec. 2012	Jun. 2013	Oct. 2015	Apr. 2014
705	N. E. Ontario	Aug. 2022	May 2022	Nov. 2022	> 20 years	Aug. 2023
709	Nfld & Labrador	Jul. 2068	> 20 years	> 20 years	> 20 years	> 20 years
778	Vancouver EAS	Oct. 2021	> 20 years	Aug. 2018	Sep. 2020	Jun. 2023
780	N. Alberta	Jul. 2013	Oct. 2017	Nov. 2011	Jan. 2015	Feb. 2013
807	N.W. Ontario	> 20 years	> 20 years	> 20 years	> 20 years	> 20 years
819	N. & N.W. Quebec	Nov. 2021	> 20 years	> 20 years	> 20 years	> 20 years
867	Yukon, NWT, Nunavut	> 20 years	> 20 years	> 20 years	> 20 years	> 20 years
902	Nova Scotia & PEI	Oct. 2013	Dec. 2013	Jul. 2014	Oct. 2015	Feb. 2015
905 / 289	Toronto Fringe	Jun. 2018	Dec. 2022	Jul. 2023	Oct. 2022	Nov. 2021

4. Schedule of Future NRUF Activities in the Current Year

Due Date	NRUF Type	NRUF Format	NPA(s)
8 Aug.	R-NRUF	Format 2	250
8 Aug.	R-NRUF	Format 2	403
8 Aug.	S-NRUF	As determined by RPC	514
28 Jul.	J-NRUF	Jeopardy / Guideline	519
8 Aug.	S-NRUF	Format 2 – As determined by RPC	613
8 Aug.	R-NRUF	Format 2	780
8 Aug.	S-NRUF	Format 2 – As determined by RPC	819

5. Summary of Challenges Encountered During the G-NRUF Process

- a) NRUF submissions were received from 94 entities². Six were received during the month of December, 25 were received during January with the remainder received in February. The CNA started contacting individual companies that had not yet submitted their NRUF on 1 February 2006. In total, CNA staff sent over 150 e-mails and made in excess of 30 telephone calls in an attempt to ensure that all submission were received on time.
- b) Twenty-one (21) submissions (almost ¼) did not have the correct value for the 1 January 2006 actuals. In almost all cases companies had a lower number based on “missing” CO Codes that had been assigned since the summer of 2005.
- c) Companies continue to have problems forecasting growth. This is especially apparent where the CNA has NRUF forecasts at an Exchange Area level. Companies typically request CO Codes in Exchange Areas where they have identified no forecasted growth. As an example of this, while collecting the 2006 data, one company requested a CO Code in an Exchange Area for which they had shown zero growth in an R-NRUF submission that had been received by the CNA only the preceding day.
- d) TSPs confuse the differences between a G-NRUF, an R-NRUF, an S-NRUF, a J-NRUF and the Reserved and Held Report requirements.
- e) Some companies had problems³ with completion of the C-NRUF forms, submitted the inappropriate form, or missed submission of a form.

6. Potential Solutions Identified by the CNA to Address G-NRUF Process Issues

- a) There appears to be no serious negative consequence set out for companies that do not forecast accurately. There should be an inducement for the companies to report as accurately as possible, once and on time, to ensure that the G-NRUF is meaningful and timely.
- b) The CSCN should strive to increase the participation of smaller TSPs in its activities, such that they are more conversant with the significance of various numbering requirements (e.g., the G-NRUF process, Reserved and Held reports).

² An entity is a single OCN or Proposed CLEC without an OCN.

³ Not including companies that did not follow submission instructions.

- c) Based on discussions between the CNA and various TSPs, it would appear that there is too much time between the request for G-NRUF data and the submission date, which allows TSPs to become involved with other projects and to overlook the due date. The CNA recommends a maximum of one month from the date of the initial request to the due date of the G-NRUF.

7. G-NRUF Assumptions

See the attached CSCN letter dated 1 November 2005.

7.1 CNA Special CO Code Assignment Practices

For NPAs 613 and 819 the CNA used the assignment pools developed to meet the requirements of the Special Central Office Code Assignment Practices, as approved by the CRTC in Telecom Decision CRTC 2003-30.

8. Conclusion

In accordance with Section 4, Item 6 h) of the Canadian Numbering Resource Utilization Forecast (C-NRUF) Guideline, the CNA has conducted an assessment, at a total aggregate level, to determine whether the 2006 C-NRUF results are reasonable and the Projected Exhaust Dates for all NPAs are realistic based upon the data submitted by TSPs and the direction provided by the CSCN on 1 November 2005.

The CNA notes that the Canadian telecommunications environment continues to go through a period of significant change due to competition in local exchange and wireless markets and the recent change in the economy. The general trend since the 2005 G-NRUF has been towards the advancement of the Projected Exhaust Dates of all NPAs with the exception of NPA 250 and NPA 778.

The results from the 2006 G-NRUF are difficult to compare with the 2005 G-NRUF results since various TSPs have submitted to the CNA a set of data that is somewhat different from the 2005 data.

TSPs have modified their market entry and expansion plans as their market and competitive experience affects their business results.

As we move forward into the remainder of 2006 and 2007 the CNA expects the telecommunications market to continue to move towards an equilibrium position. However, at this time, there is still the potential for volatility in demand for numbering resources that is difficult to predict. Recent events such as improvements in the Canadian economy, expansion of the VoIP market, continued acquisitions/mergers and the recent expansion of LNP to encompass wireless services may have an unforeseen impact on demand. Due to these uncertainties, there is some latitude for determining what is reasonable and realistic.

Accordingly, based on this assessment, in the CNA's opinion, the G-NRUF results for this year appear reasonable and the Projected Exhaust Dates for Canadian NPAs are generally realistic in relation to past years.

Historical NRUF Actual vs Forecast Data

NPA / Years	2000			2001			2002			2003			2004			2005			6 Year
	Actual	Forecast	Delta	Actual	Forecast	Delta	Actual	Forecast	Delta	Actual	Forecast	Delta	Actual	Forecast	Delta	Actual	Forecast	Delta	Average
204	30	33	90.9%	26	45	57.8%	9	74	12.2%	7	28	25.0%	4	13	30.8%	14	20	70.0%	47.8%
250	25	94	26.6%	46	79	58.2%	23	53	43.4%	21	26	80.8%	27	35	77.1%	17	30	56.7%	57.1%
289-905	78	161	48.4%	49	174	28.2%	34	59	57.6%	34	29	117.2%	103	61	168.9%	67	51	131.4%	92.0%
306	7	-22	-31.8%	7	9	77.8%	4	16	25.0%	4	8	50.0%	3	5	60.0%	8	26	30.8%	35.3%
403	43	45	95.6%	49	27	181.5%	12	24	50.0%	23	22	104.5%	32	52	61.5%	26	53	49.1%	90.4%
416-647	63	105	60.0%	71	90	78.9%	35	58	60.3%	34	52	65.4%	43	60	71.7%	41	54	75.9%	68.7%
418	19	41	46.3%	22	41	53.7%	38	21	181.0%	16	34	47.1%	11	26	42.3%	58	27	214.8%	97.5%
450	38	47	80.9%	27	38	71.1%	14	19	73.7%	8	23	34.8%	41	24	170.8%	81	47	172.3%	100.6%
506	4	16	25.0%	10	13	76.9%	5	20	25.0%	16	25	64.0%	5	19	26.3%	28	59	47.5%	44.1%
514	52	63	82.5%	52	62	83.9%	28	41	68.3%	27	49	55.1%	49	50	98.0%	28	45	62.2%	75.0%
519	59	67	88.1%	34	52	65.4%	26	42	61.9%	18	43	41.9%	24	39	61.5%	75	59	127.1%	74.3%
604	61	136	44.9%	35	65	53.8%	7	7	100.0%	1	1	100.0%	6	14	42.9%	2	9	22.2%	60.6%
613	37	44	84.1%	25	35	71.4%	26	27	96.3%	16	32	50.0%	11	40	27.5%	38	30	126.7%	76.0%
705	20	18	111.1%	12	22	54.5%	13	28	46.4%	17	30	56.7%	7	16	43.8%	26	22	118.2%	71.8%
709	3	4	75.0%	2	10	20.0%	6	7	85.7%	10	15	66.7%	1	15	6.7%	18	31	58.1%	52.0%
778	1			14	80	17.5%	14	43	32.6%	27	22	122.7%	24	53	45.3%	34	41	82.9%	60.2%
780	41	32	128.1%	34	32	106.3%	16	25	64.0%	27	17	158.8%	23	42	54.8%	29	54	53.7%	94.3%
807	2	9	22.2%	1	13	7.7%	0	4	0.0%	4	1	400.0%	8	11	72.7%	6	6	100.0%	100.4%
819	16	28	57.1%	15	30	50.0%	22	22	100.0%	9	16	56.3%	2	15	13.3%	25	35	71.4%	58.0%
867	1	-28	-3.6%	0	-7	0.0%	1	1	100.0%	1	4	25.0%	1	1	100.0%	1	-42	-2.4%	36.5%
902	13	41	31.7%	37	29	127.6%	25	38	65.8%	17	37	45.9%	20	43	46.5%	30	52	57.7%	62.5%
			58.2%			63.9%			64.2%			84.2%			63.0%			82.2%	

Notes: Actual is based on Part 1 application date.
Forecast is from G-NRUF submissions, ignoring CNA codes.
Delta is Actual/Forecast.

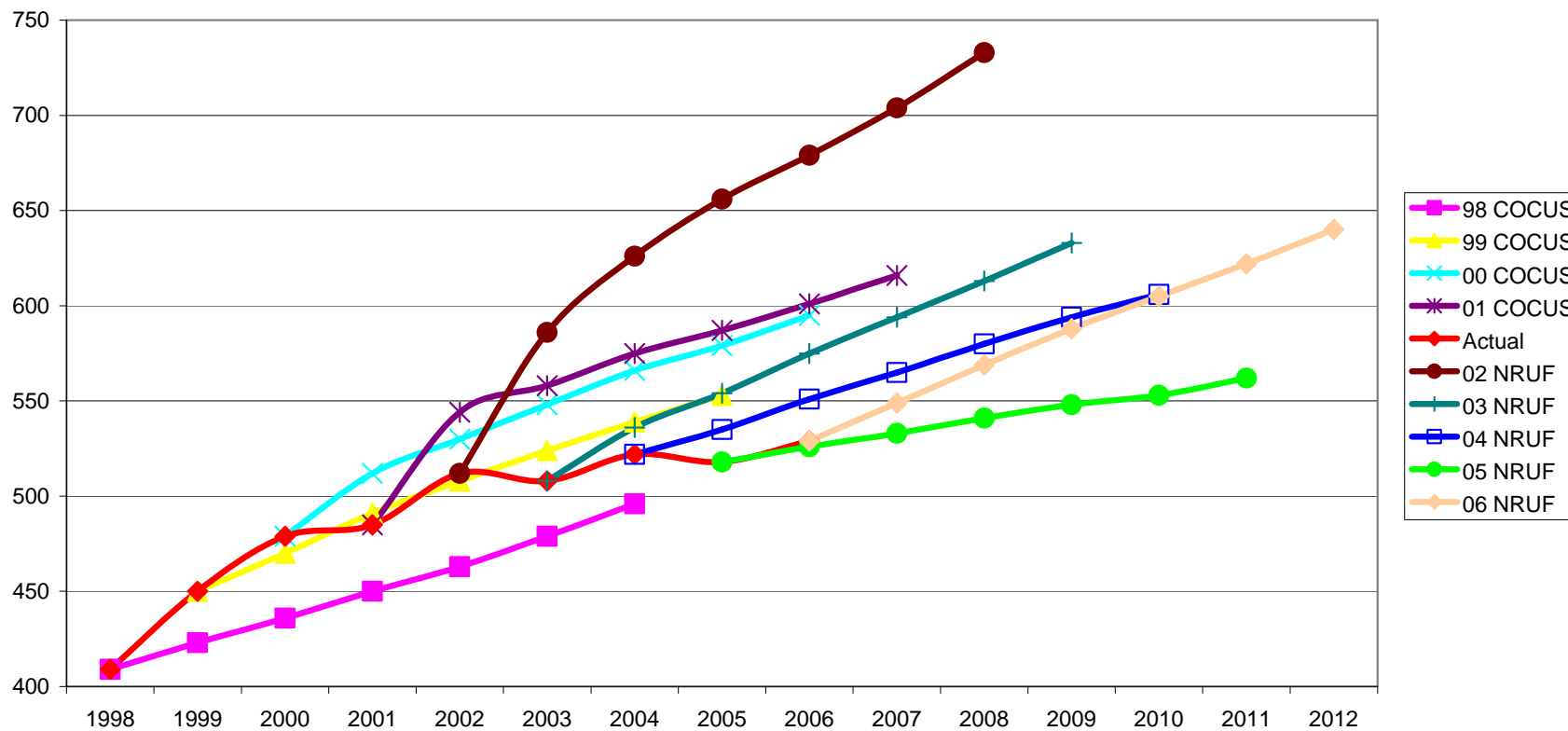
2006 G–NRUF Aggregate Results

NPA / Years	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
204	529	549	569	588	605	622	640	659	678	697	716	735	754	773	792	834	853	872	891	910	929
250	658	688	724	762	791	848	869	900	931	962	993	1024	1055	1086	1117	1148	1179	1210	1241	1272	1303
289-905	904	955	995	1035	1079	1119	1164	1208	1252	1296	1340	1384	1428	1472	1516	1560	1638	1682	1726	1770	1814
306	538	564	577	590	602	610	619	630	641	652	663	674	685	696	707	718	729	740	751	762	773
403	603	656	697	727	755	794	864	902	940	978	1016	1054	1092	1130	1168	1206	1244	1282	1320	1358	1396
416-647	955	1009	1075	1135	1195	1262	1323	1385	1447	1509	1571	1662	1724	1786	1848	1910	1972	2034	2096	2158	2220
418	623	650	683	699	720	737	756	779	832	855	878	901	924	947	970	993	1016	1039	1062	1085	1108
450	535	582	608	627	639	655	667	684	701	718	735	752	769	786	839	856	873	890	907	924	941
506	327	386	430	472	506	527	549	582	615	648	681	714	747	780	848	881	914	947	980	1013	1046
514	676	754	793	828	868	901	933	971	1009	1047	1085	1123	1161	1205	1237	1275	1313	1351	1389	1427	1465
519	740	821	850	884	907	938	967	998	1029	1060	1091	1122	1153	1184	1215	1246	1277	1308	1339	1370	1401
604	586	595	603	611	616	620	622	628	634	640	646	652	658	664	670	676	682	688	694	700	706
613	622	588	618	647	671	702	730	759	788	862	891	920	949	978	1007	1036	1065	1094	1123	1152	1181
705	467	489	504	519	537	558	579	598	617	636	655	674	693	712	731	750	769	788	844	863	882
709	386	417	434	449	466	482	497	513	529	545	561	577	593	609	625	641	657	673	689	705	721
778	148	189	234	284	317	361	388	424	460	496	532	568	604	640	676	712	748	784	856	892	928
780	569	623	659	696	720	746	764	797	865	898	931	964	997	1030	1063	1096	1129	1162	1195	1228	1261
807	184	190	196	199	201	203	205	209	213	217	221	225	229	233	237	241	245	249	253	257	261
819	699	516	534	551	557	574	582	596	610	624	638	652	666	680	694	708	722	736	750	764	778
867	199	157	158	160	162	162	165	167	169	171	173	175	177	179	181	183	185	187	189	191	193
902	537	589	617	644	669	694	718	744	770	796	843	869	895	921	947	973	999	1025	1051	1077	1103
NPA / Years	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026

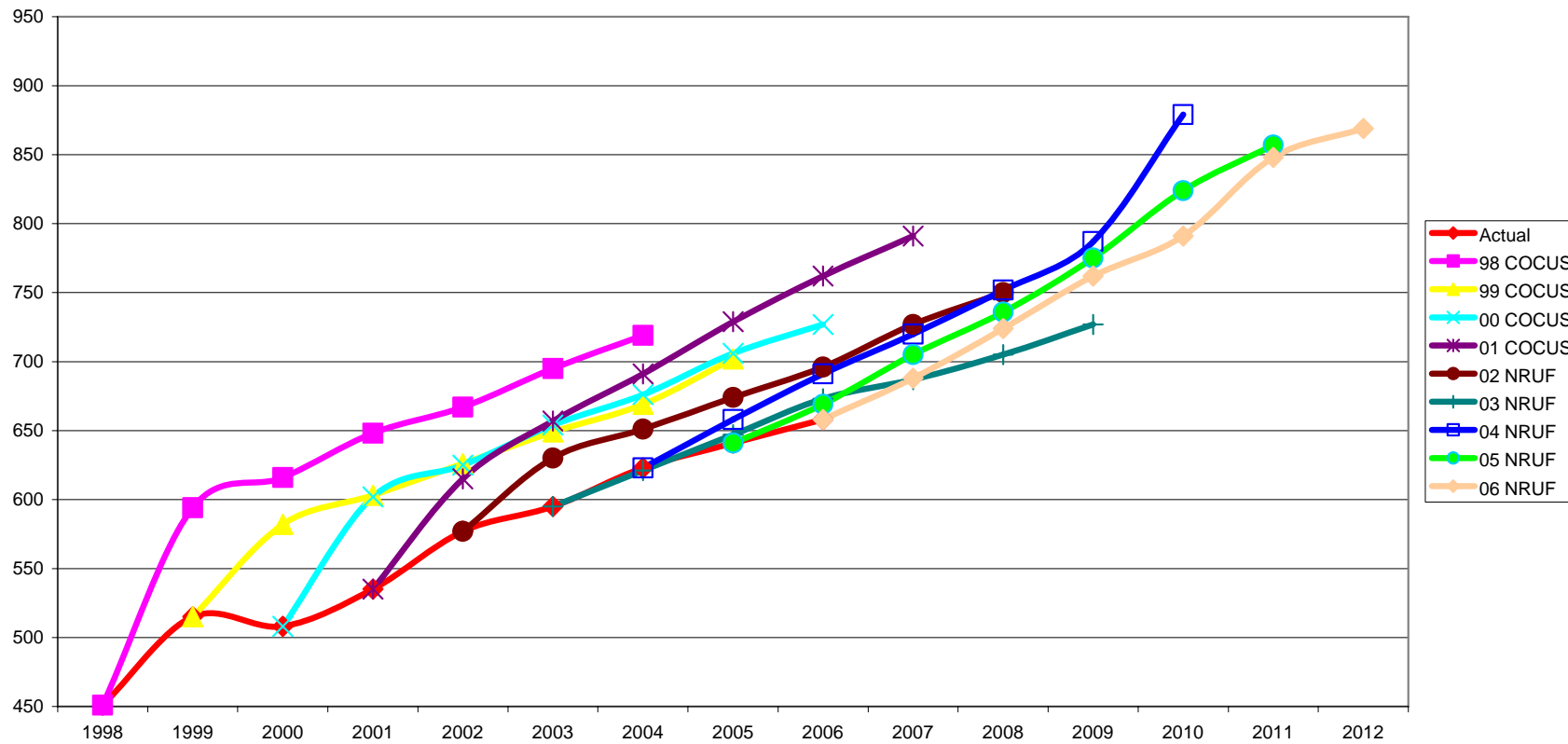
Quantity of CNA CO Codes as of 1 January 2006

January 1, 2006																					
NPA	204	250	289 - 905	306	403	416 - 647	418	450	506	514	519	604	613	705	709	778	780	807	819	867	902
Initial Codes	0	0	0	0	0	0	0	0	0	6	15	0	0	0	0	0	0	0	0	0	0
Protected	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0
N00 Codes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N11 Service Codes	8	8	16	8	8	16	8	8	8	8	8	8	8	8	8	8	8	8	8	8	7
Special Use Codes (555, 950 & 976)	3	3	6	3	3	6	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Industry Plant Test Codes	1	2	4	2	2	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Current NPAs	3	4	16	3	4	7	5	4	3	3	4	3	6	8	3	5	5	3	7	9	2
Future NPAs	7	10	20	9	19	18	12	19	20	14	4	15	18	16	16	15	15	26	18	30	6
Limited Availability (USA 7D Problem)	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	2	0	0
911 Misdial Codes (912, 914 & 915)	3	3	0	3	2	0	3	3	3	0	3	0	3	3	3	0	1	3	3	3	3
Special 7 Digit Dialing Codes (310, 610 & 810)	2	2	5	2	2	5	2	2	2	2	2	2	2	2	2	3	2	2	2	3	2
Protected for 7D		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
New Unknown Entrants	3	3	15	3	4	6	3	5	3	0	0	2	7	5	2	2	4	2	2	2	3
Total	27	32	67	30	40	56	35	41	42	38	41	33	48	42	37	36	36	48	45	58	25

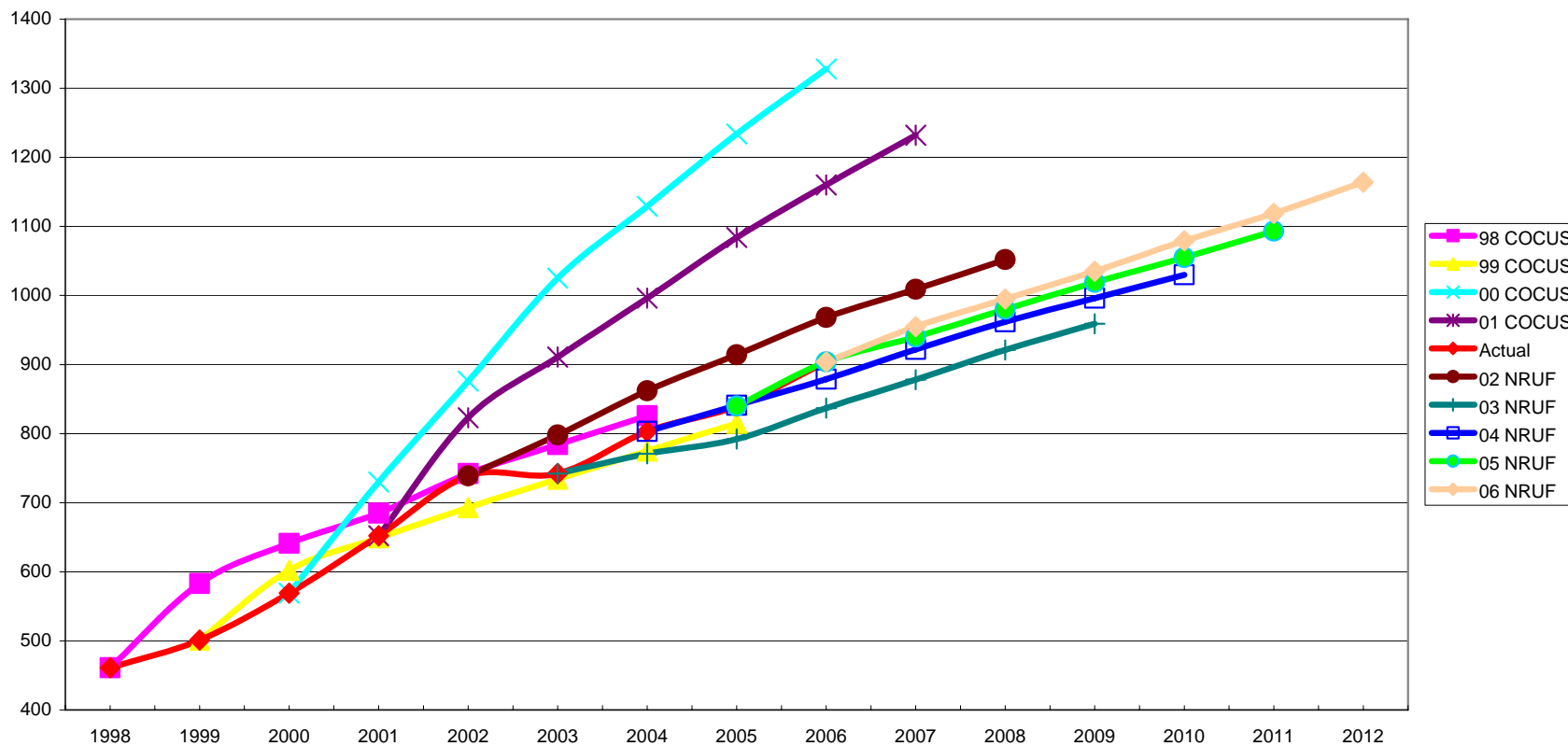
NPA 204 Manitoba



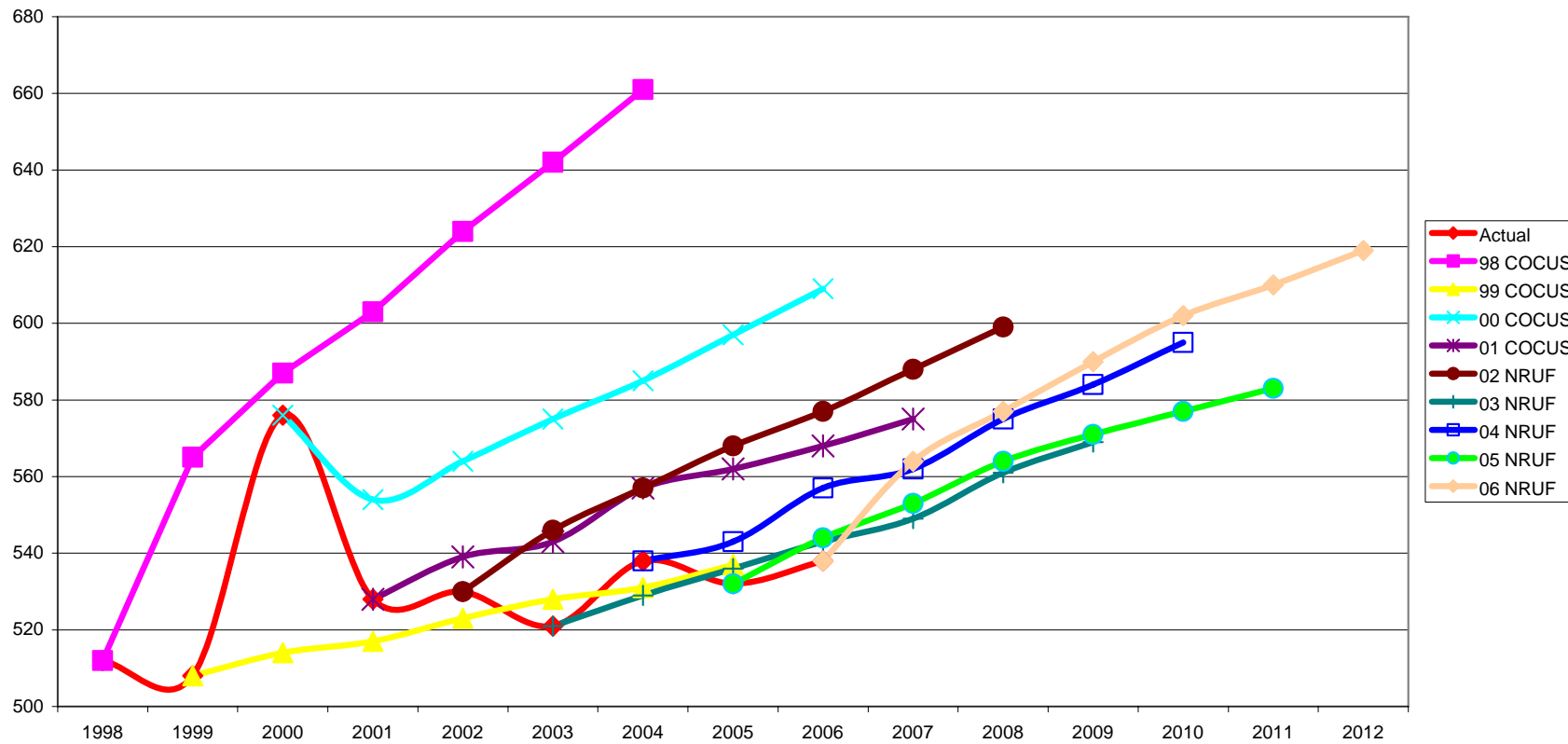
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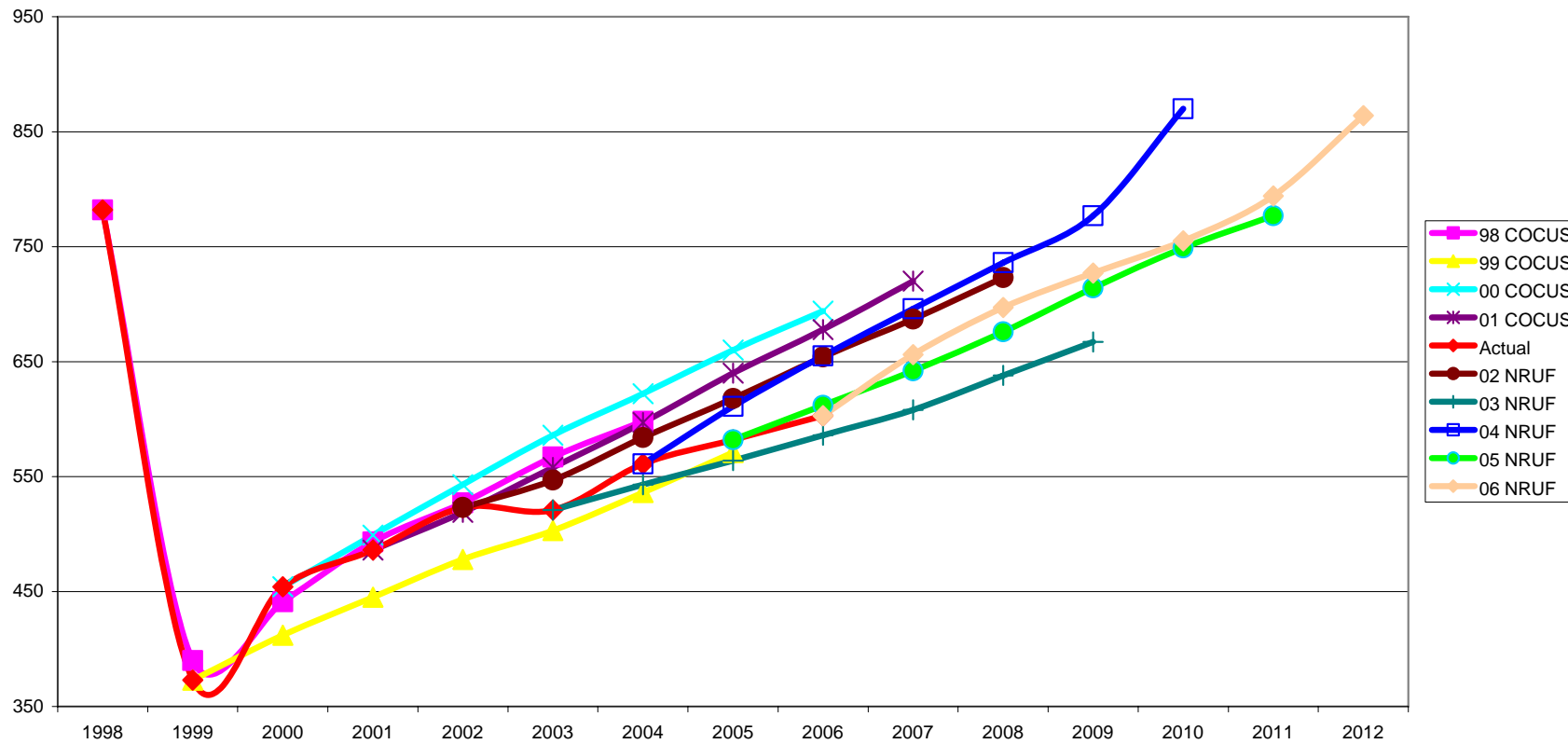
NPA 289/905 Ontario



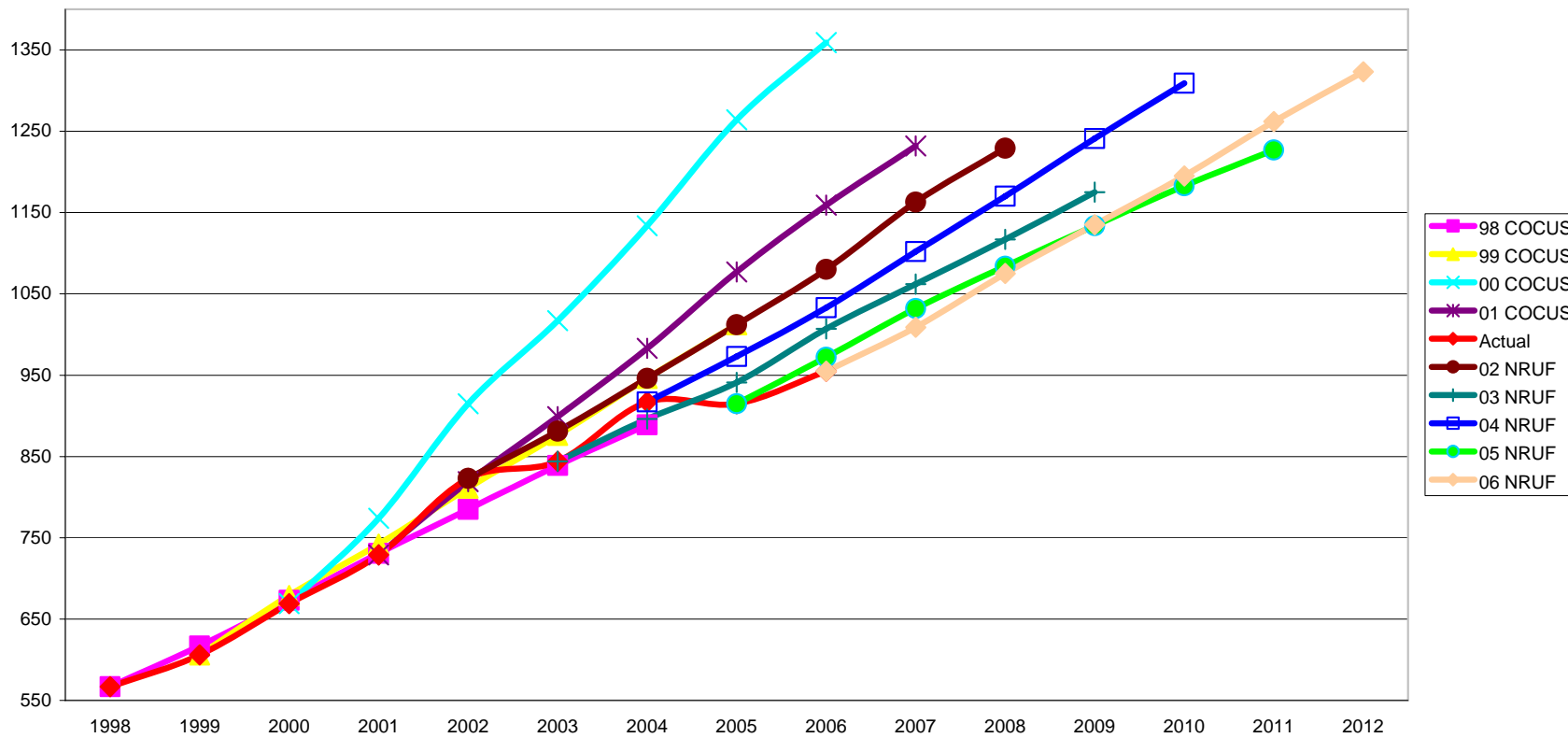
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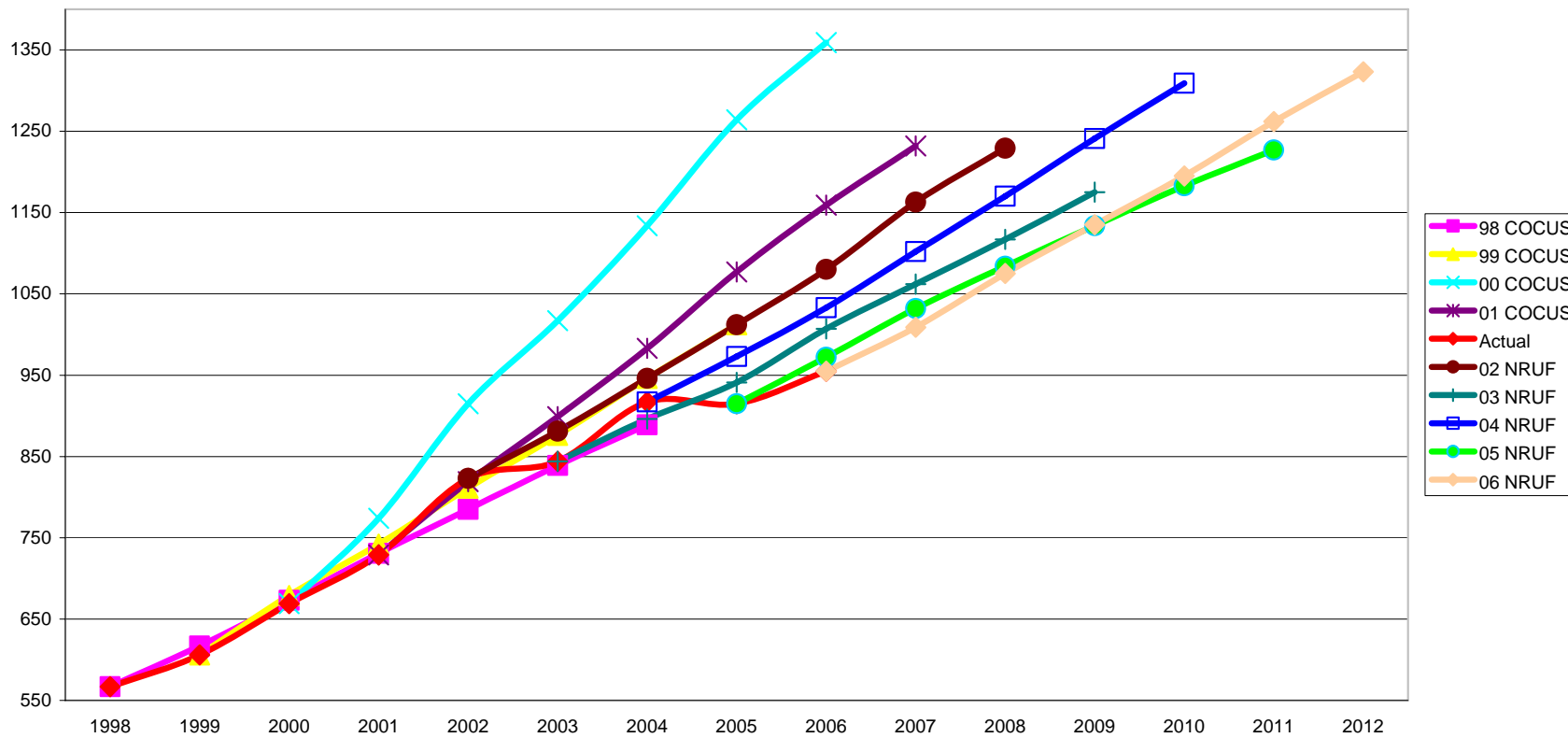
NPA 403 Alberta



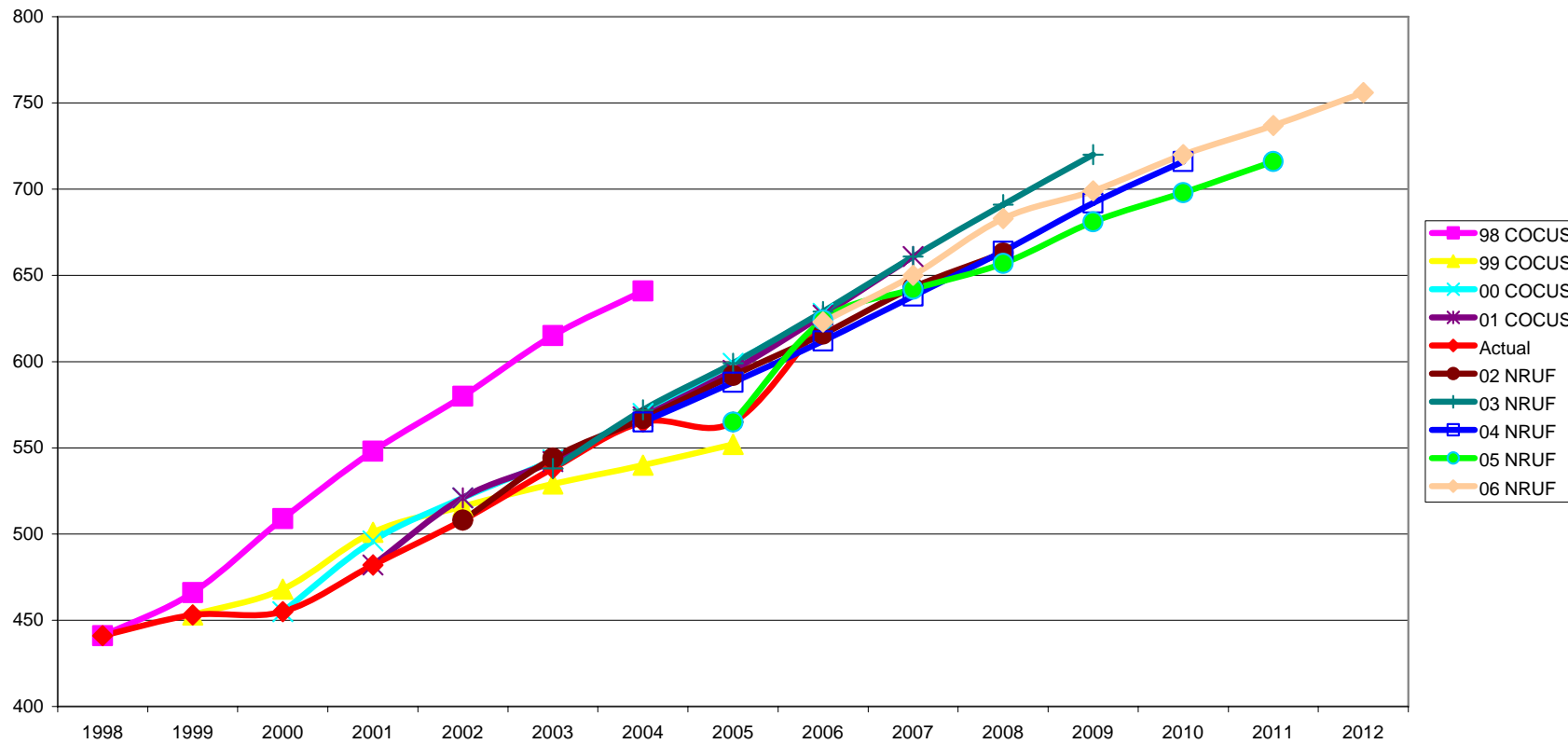
NPA 416/647 Ontario



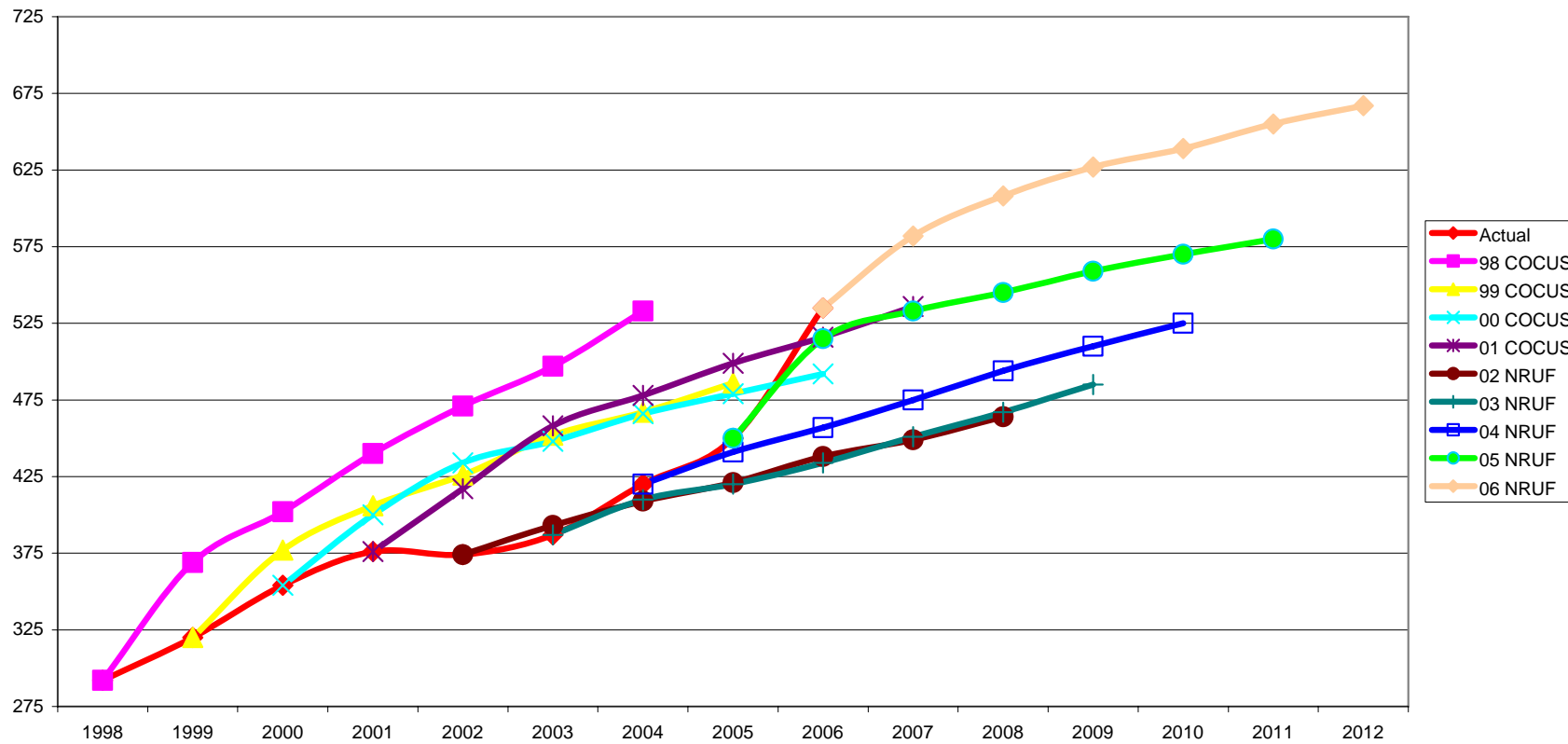
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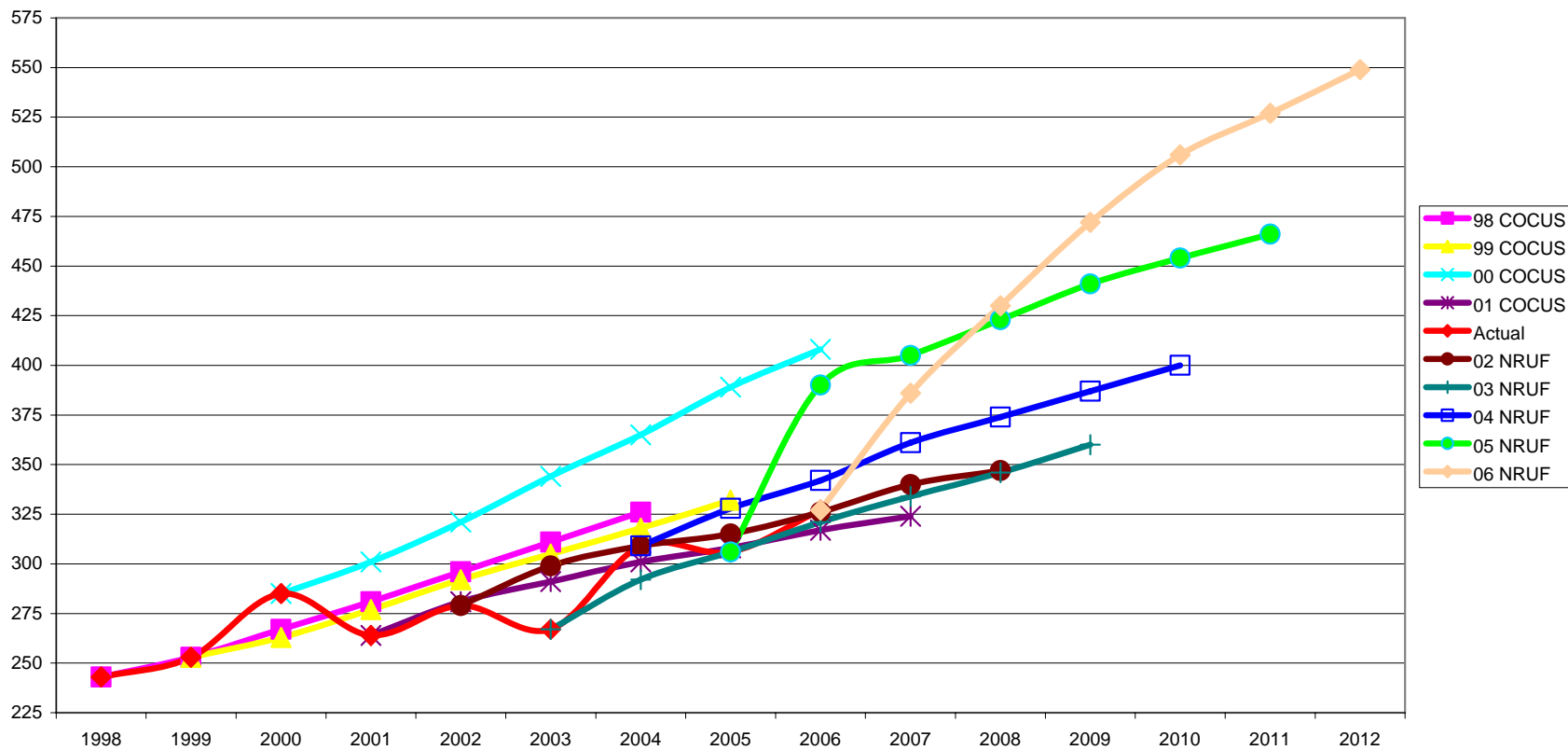
NPA 418 Quebec



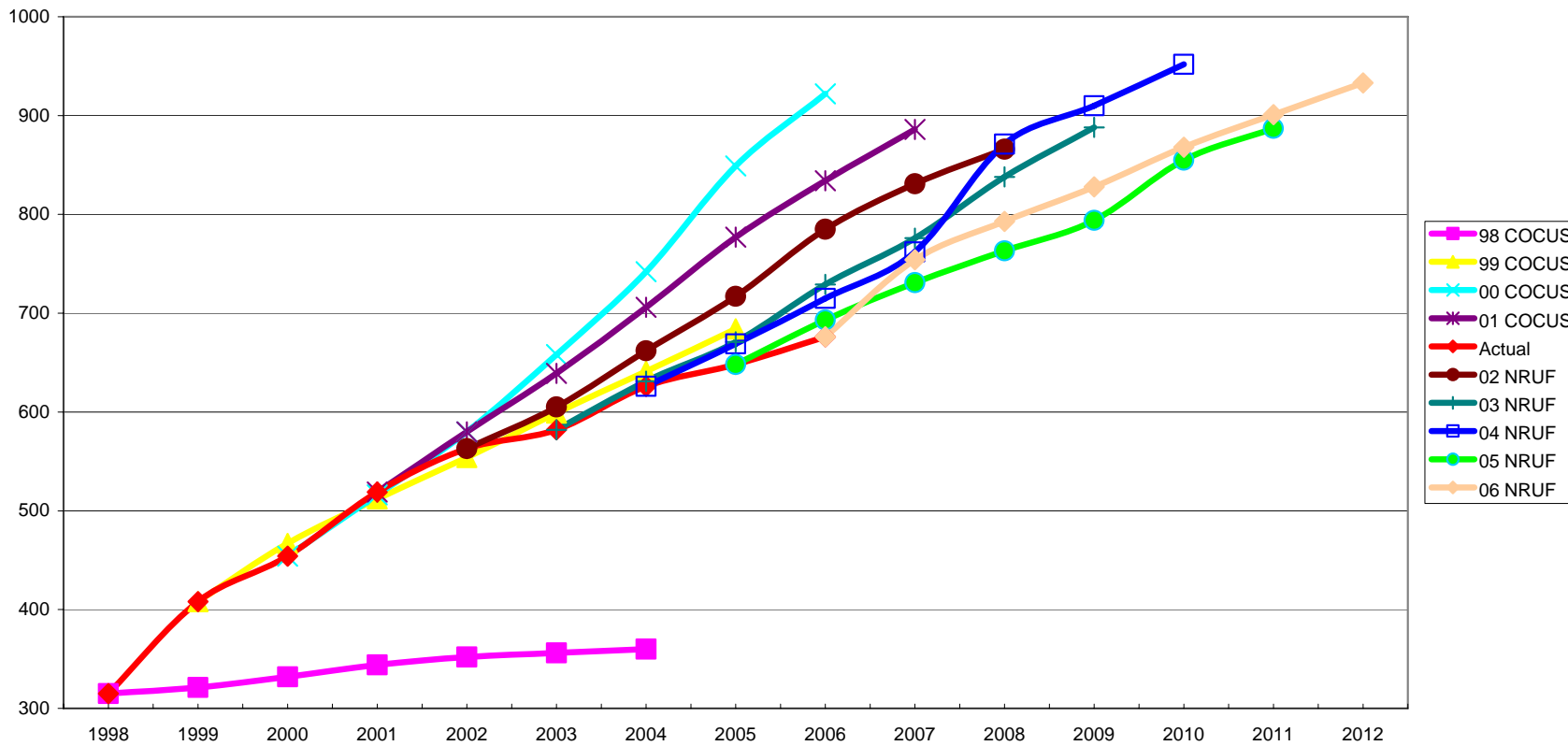
NPA 450 Quebec



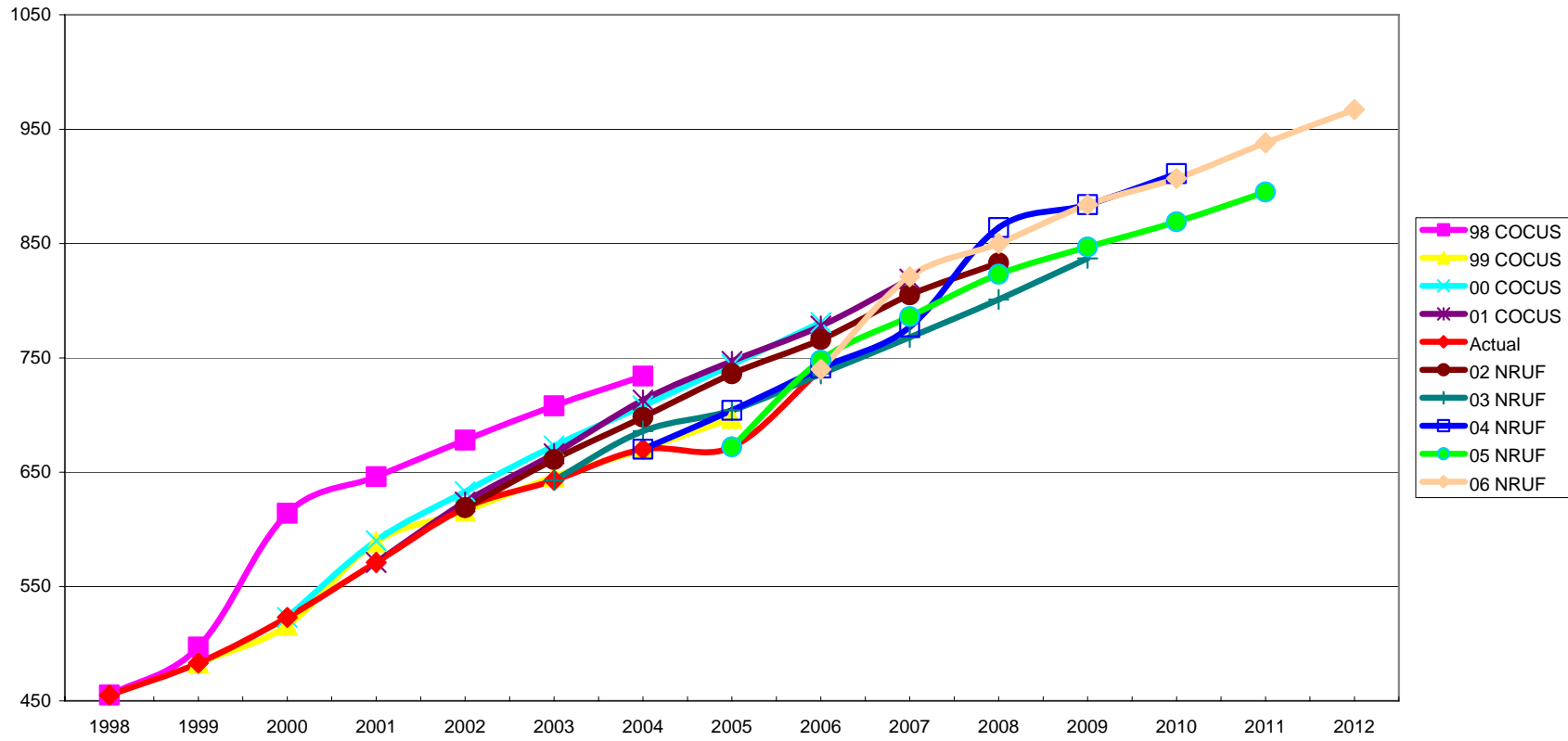
NPA 506 New Brunswick



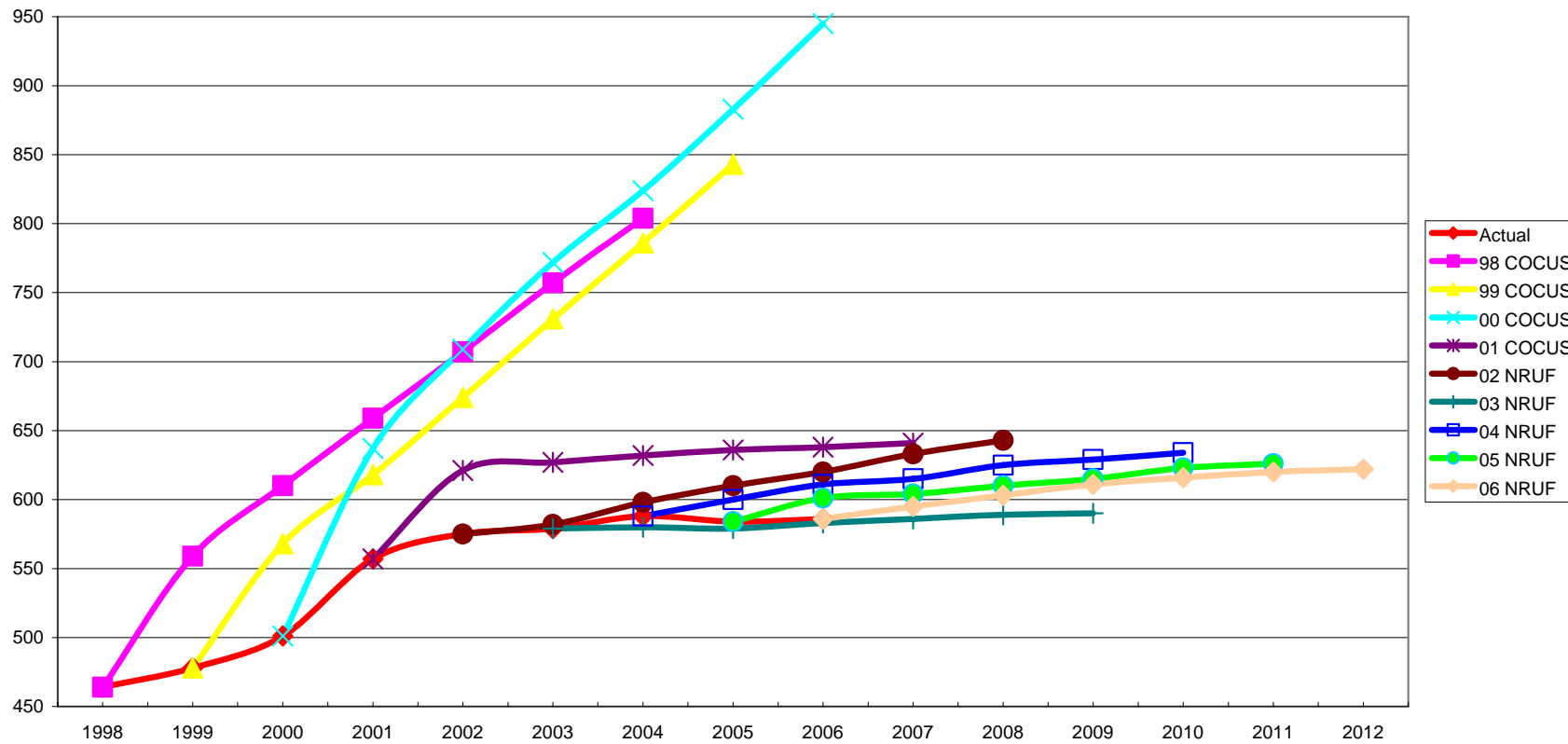
NPA 514 Quebec



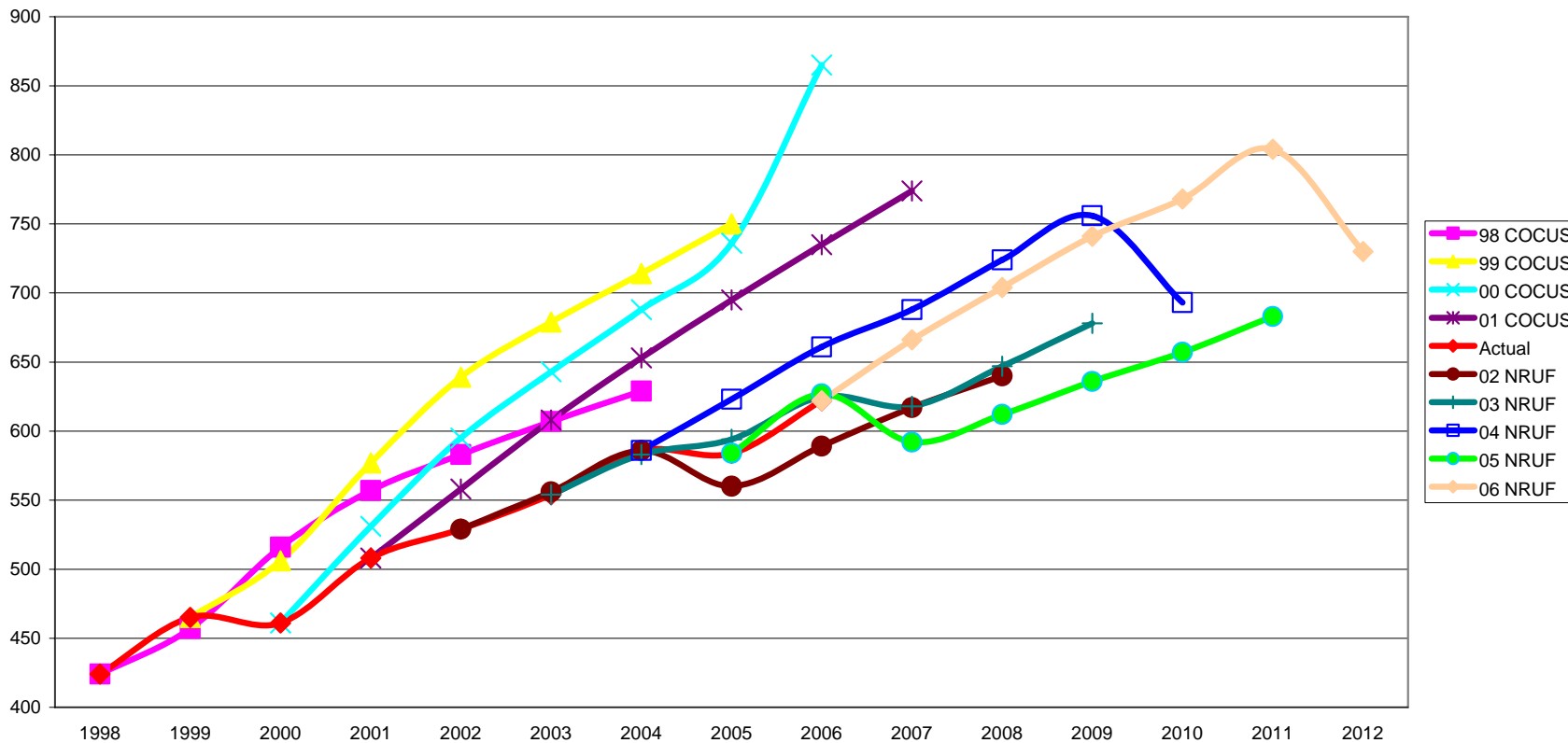
NPA 519 Ontario



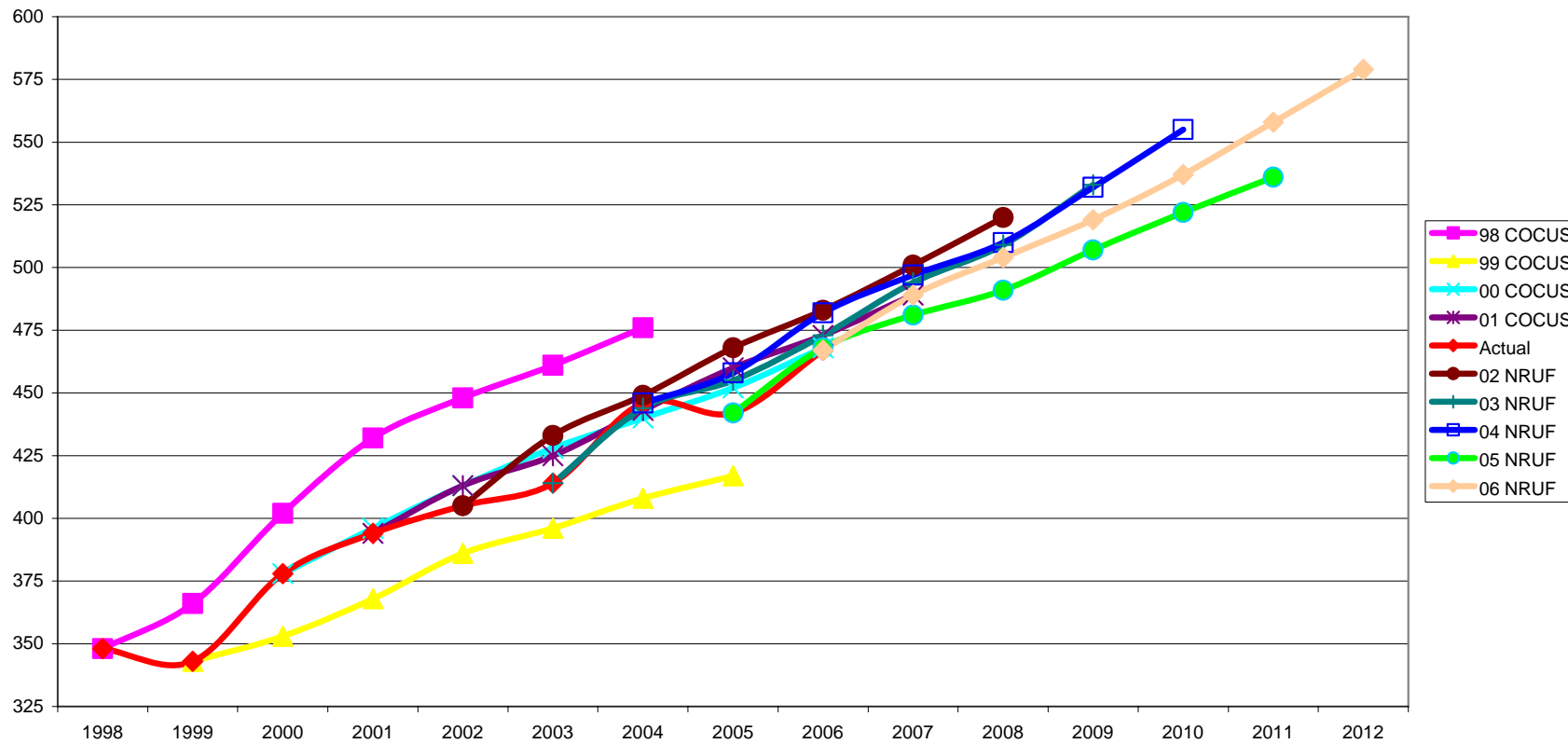
NPA 604 British Coubia



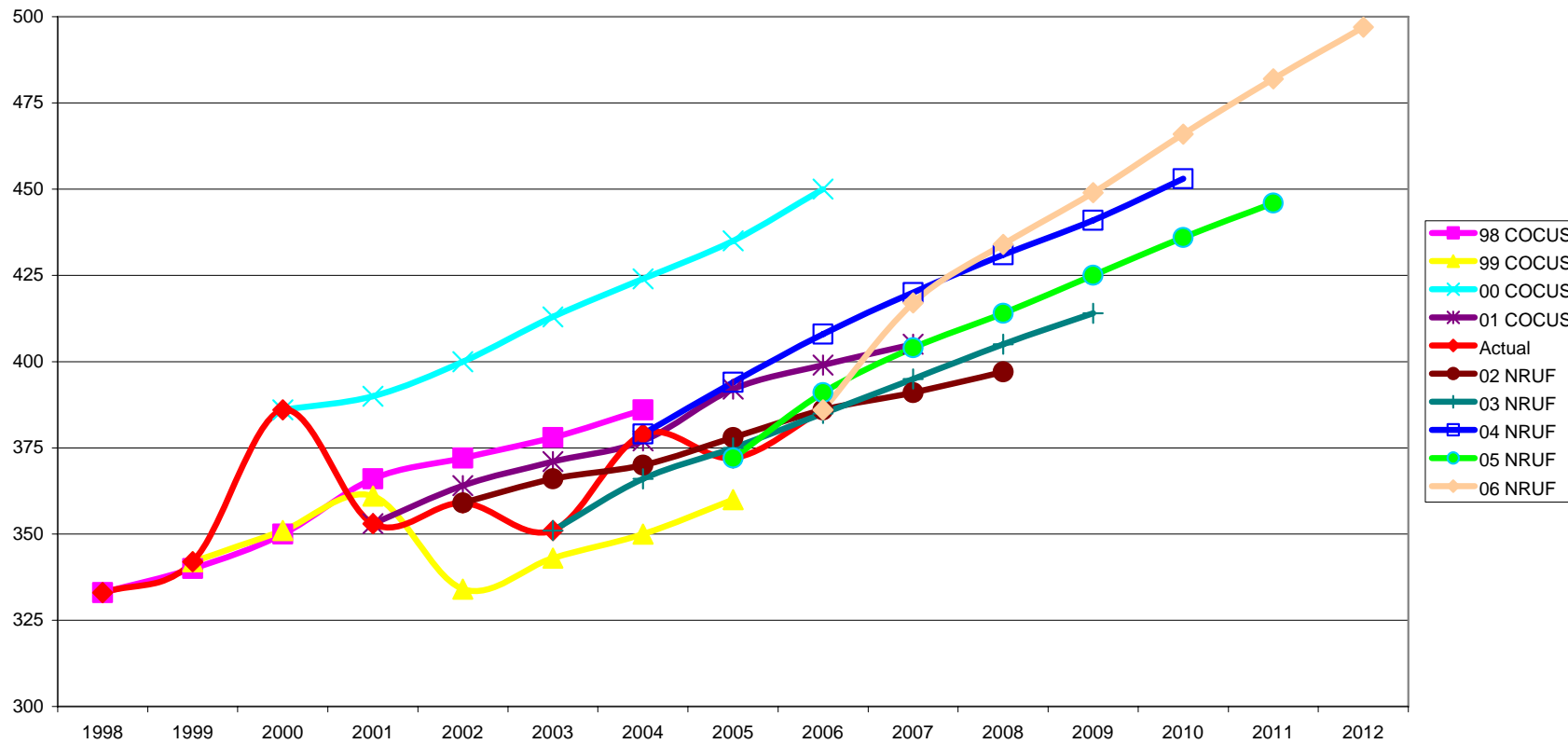
NPA 613 Ontario (includes all protected codes)



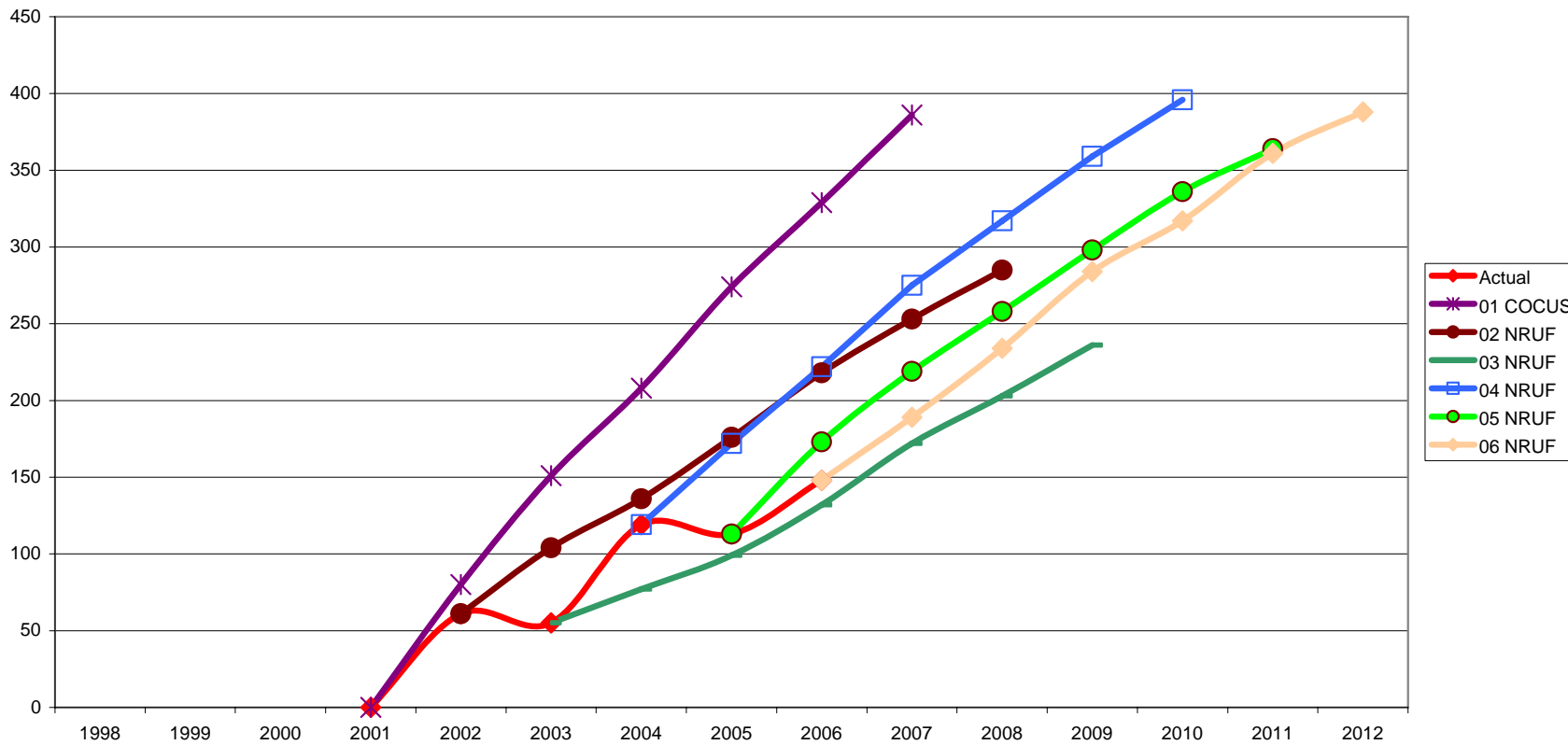
NPA 705 Ontario



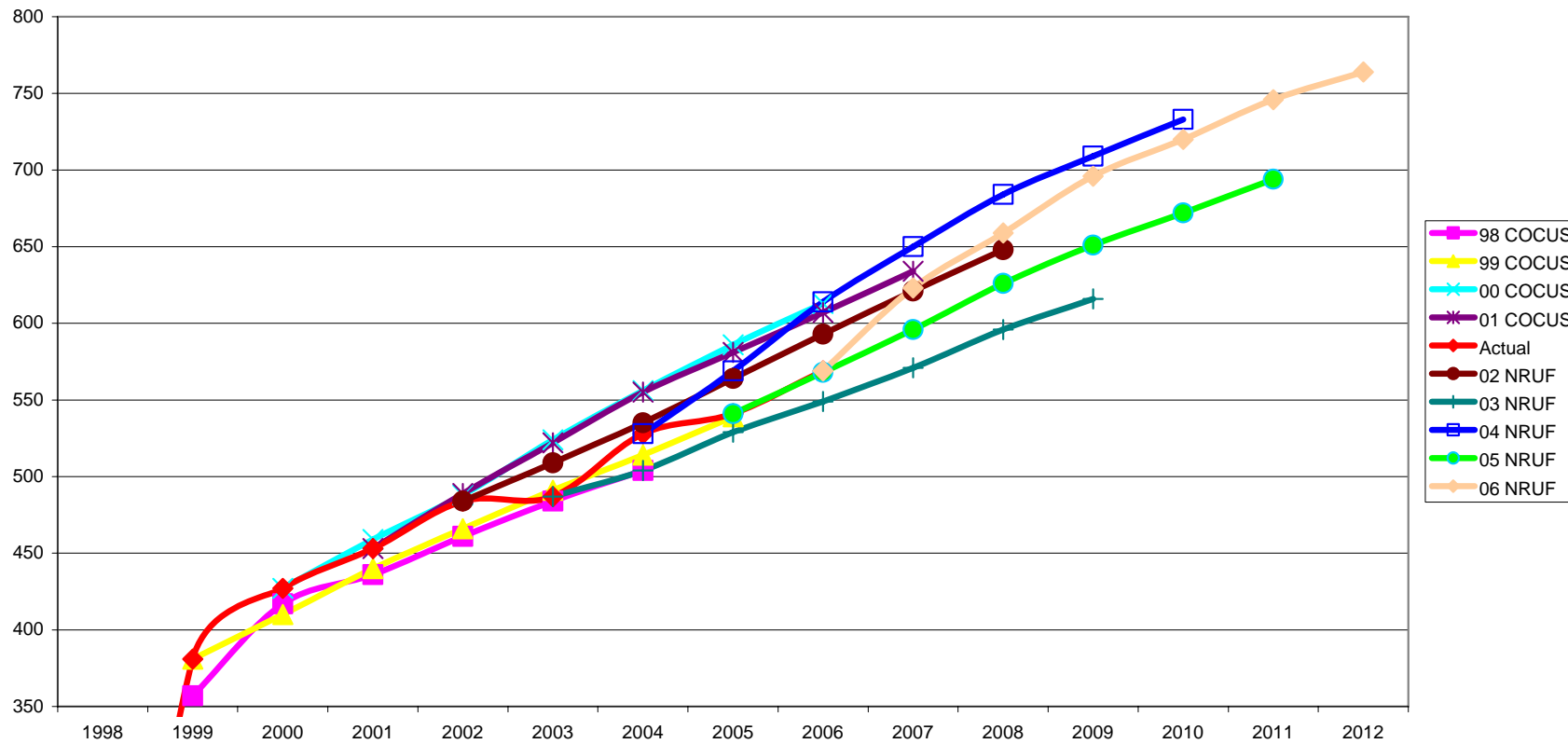
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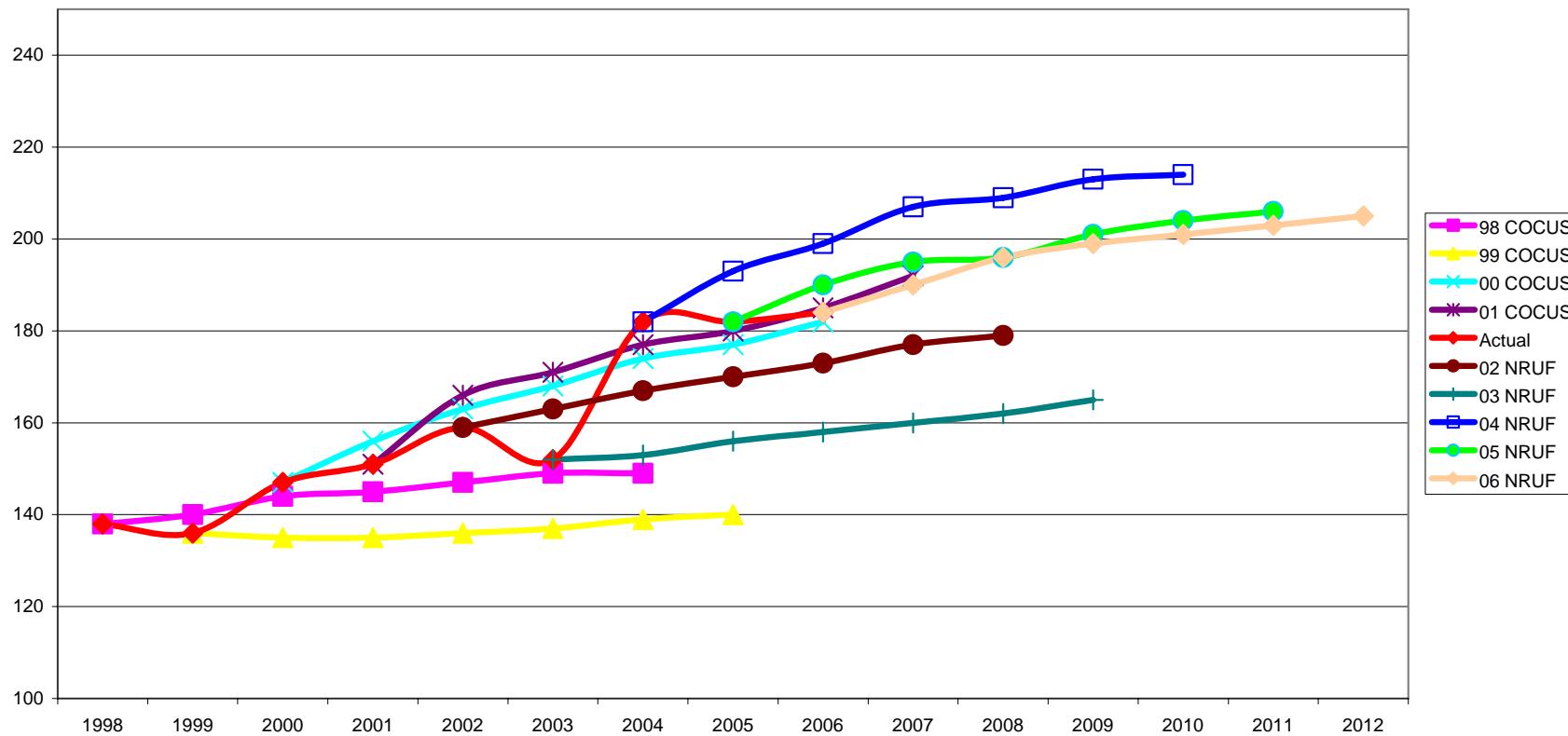
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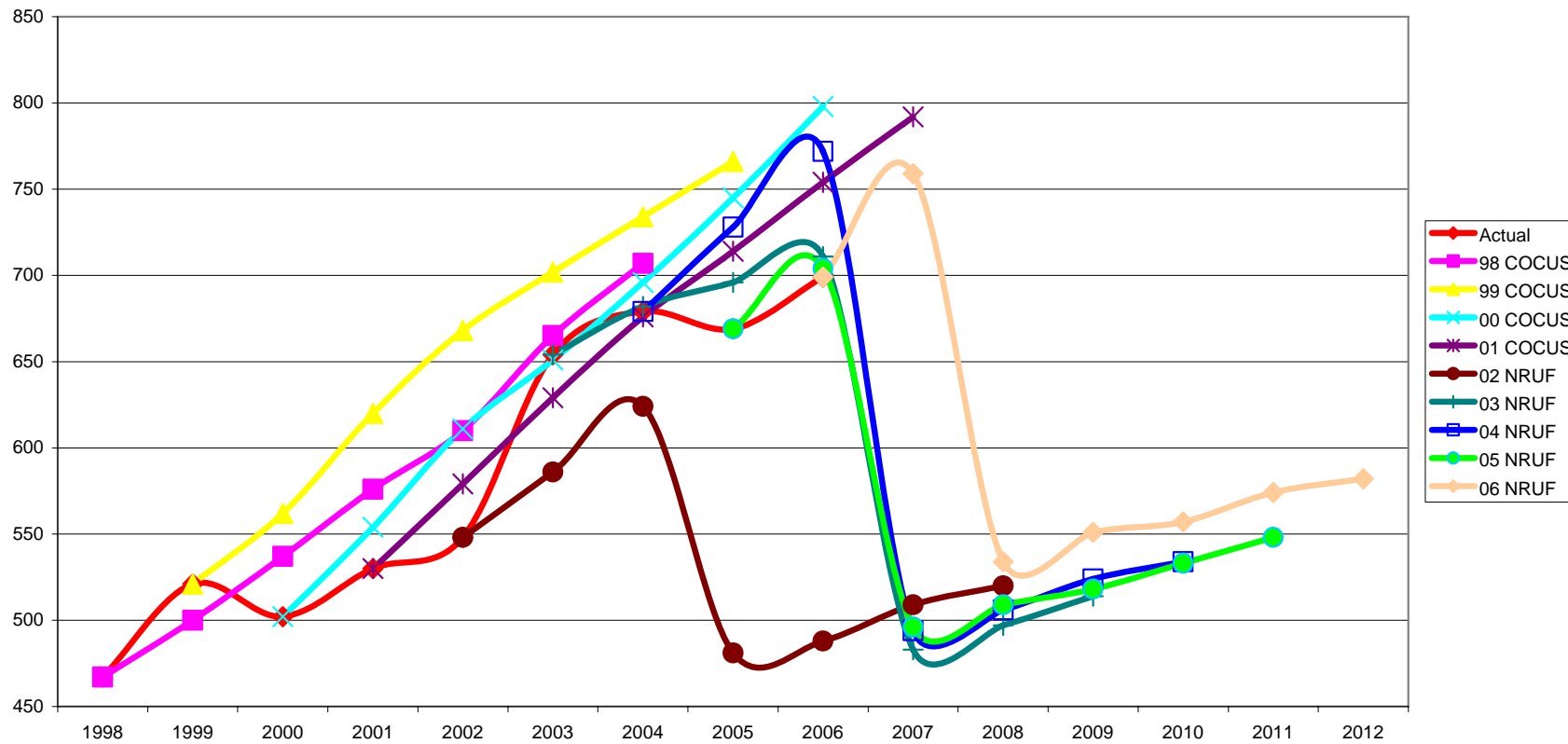
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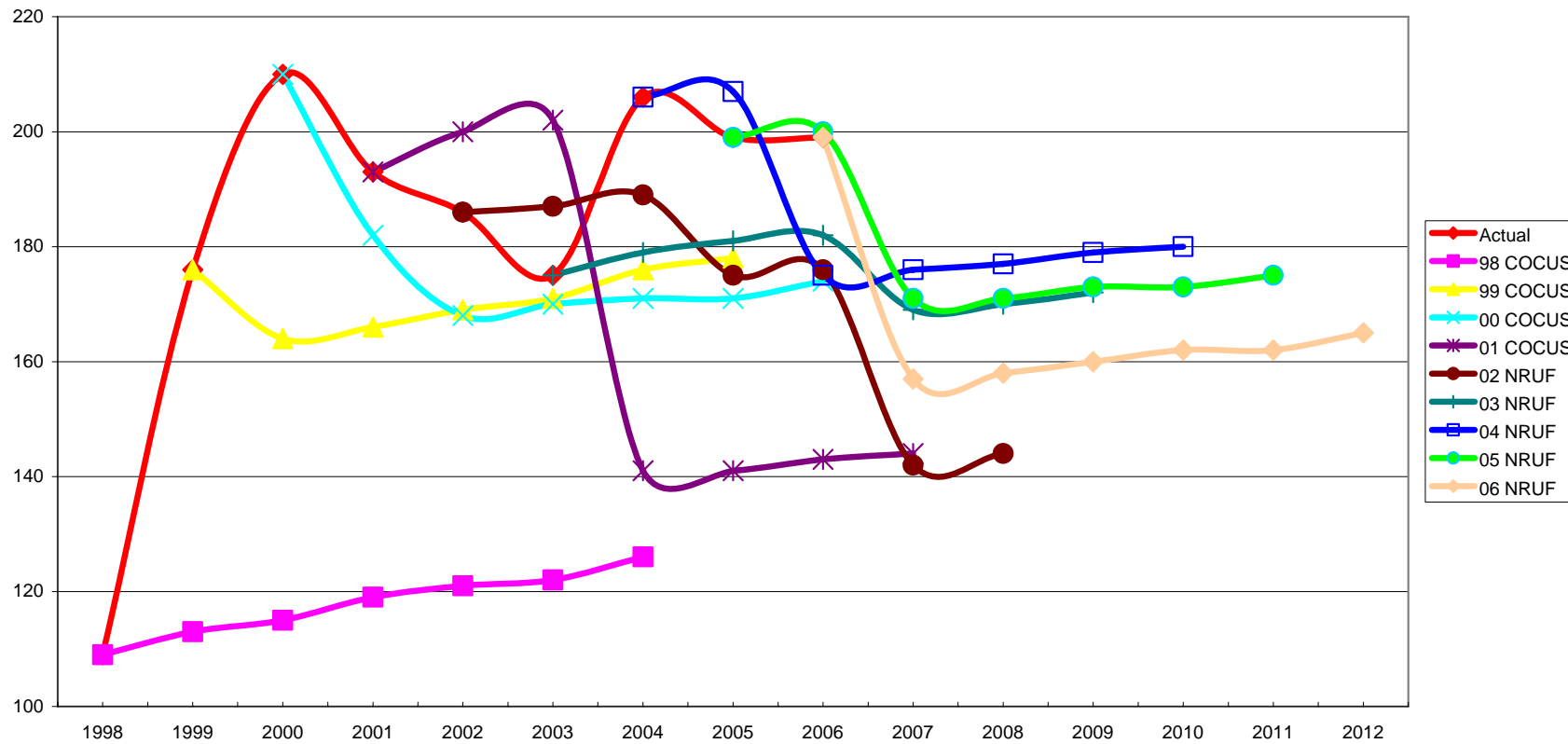
NPA 807 Ontario



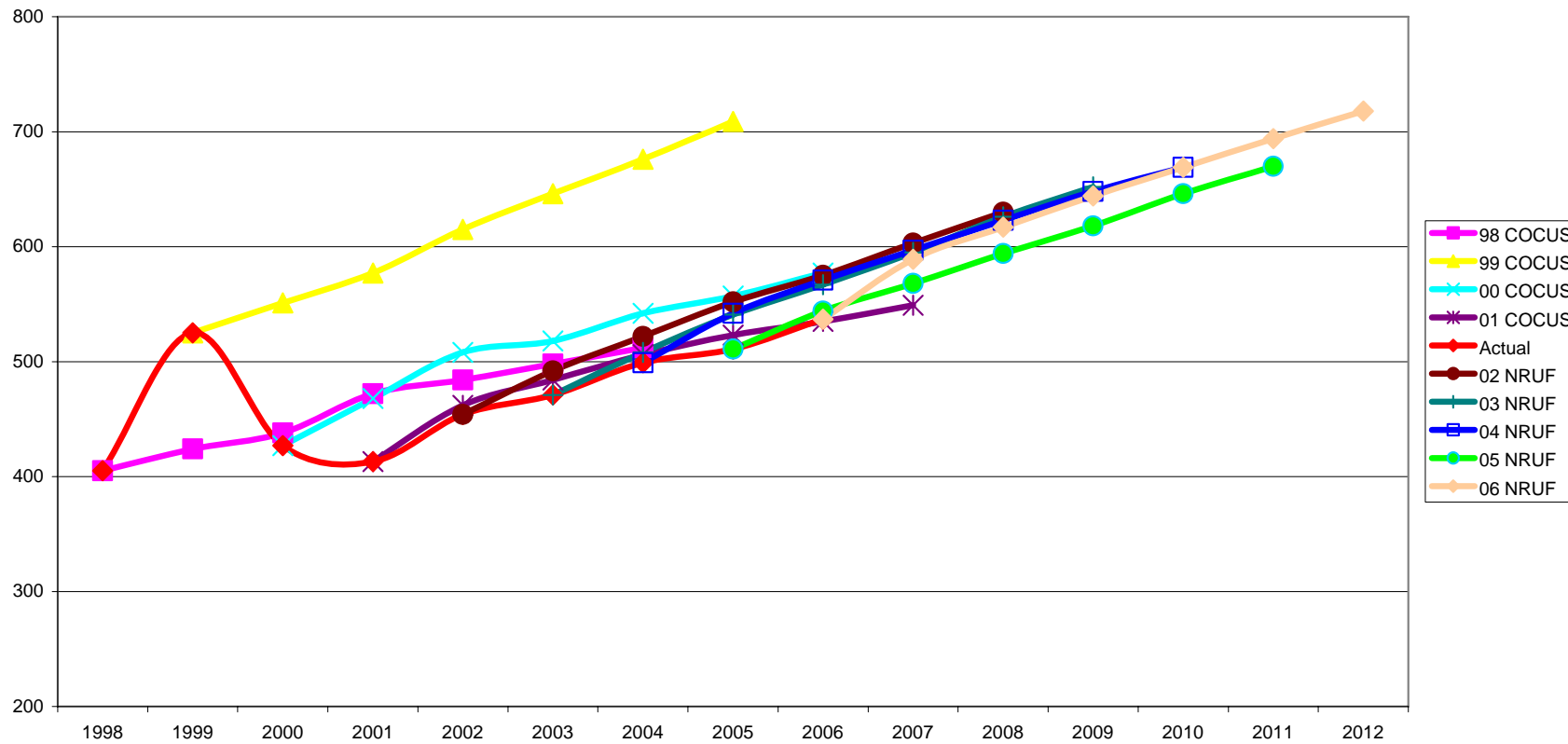
NPA 819 Quebec (includes all protected codes)



NPA 867 NWT/Yukon



NPA 902 Nova Scotia/PEI



CSCN

Canadian Steering Committee on Numbering

Douglas Birdwise
Chair - CSCN
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November 1, 2005

TRANSMITTED ELECTRONICALLY

Glenn Pilley
Director
Canadian Numbering Administrator (CNA)
SAIC Canada
60 Queen Street, Suite 1516
Ottawa, Ontario K1P 5Y7

Subject: CSCN Direction to Canadian Numbering Administrator (CNA) re: the 2006 Numbering Resource Utilization Forecast (2006 NRUF) Methodology and Assumptions

On October 18, 2005, the Canadian Steering Committee on Numbering (CSCN) discussed and agreed to the direction for the CNA with respect to the 2006 NRUF Methodology and Assumptions.

The attached document contains the direction titled "CSCN Direction to CNA re: 2006 NRUF Methodology and Assumptions October 18, 2005".

Please contact me at 613-781-4366 if you have any questions or want to discuss this matter further.

Sincerely,

Original signed by

Doug Birdwise
CSCN Chair

c.c.: Bill Mason - CRTC
Jeanne Lacombe - CRTC
CSCN

Attachment

CSCN Direction to CNA re: 2006 NRUF Methodology and Assumptions
October 18, 2005

The CSCN submits the following methodology and assumptions to the CNA for the 2006 G–NRUF.

1. If there is a discrepancy between the CNA records and those submitted by the CO Code Holder with respect to the quantities of actual CO Codes assigned and reserved as of January 1, 2006, the CNA will attempt to rectify the discrepancy. However, if the discrepancy cannot be resolved, the quantity of CO Codes appearing in the CNA's records will be used. The CO Code Holder and the CNA should attempt to resolve the discrepancy before the next NRUF is conducted.

This problem has generally occurred when a CO Code:

- is still “being recovered” (i.e., a Part 3 Form has not been issued but the CO Code Holder believes the CNA has recovered the CO Code);
 - is a Plant Test code (i.e., legacy, NPA Relief, industry plant test codes and Appendix D temporary plant test codes); or
 - has been assigned and a Part 4 Form has not been received. In the past some CO Code Holders have not counted assigned codes.
2. On 31 March 2003, the CSCN received a copy of a letter dated 26 March 2003 from CRTC staff addressed to the CNA regarding the 2003 G-NRUF Methodology and Assumptions. In this letter, CRTC staff indicated that they are concerned about the lack of allowance for unforecasted demand for new unknown entrants, new technologies or other unforecasted demand. To address this concern, CRTC staff requested the CNA to include an allowance for CO Code reservations for new unknown entrants, new technologies and other forecasted demand in area code exhaust projections. The CRTC staff letter contained an attachment that provided the quantity of codes that CRTC staff requested be added to the 2003 data as assigned CO Codes and carried forward throughout the 20 year study period with no growth. For the purposes of conducting the 2006 NRUF, the CSCN recommends that the CNA utilize the same values as used for the 2003 G-NRUF, per the following table.

CRTC Staff Allowance for Unforecasted Demand	
NPA	Quantity of CO Codes
204	3
250	3
306	3
403	4
416/647	6
418	3
450	5
506	3
514	6
519	10
604	2
613	7

CRTC Staff Allowance for Unforecasted Demand	
NPA	Quantity of CO Codes
705	5
709	2
778	2
780	4
807	2
819	2
867	2
902	3
905/289	15

3. Where the CRTC has ordered or an RPC has recommended that quantities of CO Codes be set aside for a specified period of time (e.g., CO Codes set aside for initial CO Code Applicants for a 2-year period after implementation of an Overlay), the CNA shall identify and add such quantities to the actual quantity of CO Codes for January 1 of the current year and carry them forward in the forecasts for the specified period of time at zero growth. After the specified period of time expires, the CNA shall place the set aside CO Codes back into the assignment pool. The CNA should exclude such set aside CO Codes from the calculation of annual growth rates.
4. Future projections beyond the six year forecast period will be calculated using linear extrapolation and the average annual growth in quantity of CO Codes for the six year forecast period, excluding any extraordinary factors such as returns or reclamations of large quantities of CO Codes and Codes identified in item 3 above that would create an unreasonable projected future growth rate. Where the CNA believes, based upon its analysis of past growth and NRUF forecast data for an NPA, that the six year forecast average annual growth may not be the best methodology for that NPA for projecting growth beyond the six year forecast period, the CNA shall advise the CSCN as to the alternate method it proposes to use. The six year average growth of CO Codes per year shall be calculated as follows and rounded to one decimal point at a maximum (e.g., 5.14 rounds down to 5.1; 5.15 rounds up to 5.2):

6 Year Average Growth of CO Codes per Year =
 [(Forecasted Quantity of CO Codes in year six) – (Actual Quantity in January 1 of Current Year)]/6
5. When extending the forecast from 7 to 20 years, the CNA should use the six year forecast average annual growth, calculated to one decimal point, to develop the 1 January quantity of CO Codes for each year (e.g., in year seven $100+5.4=105.4$ rounds up to 106; in year eight $105.4+5.4=110.8$ rounds up to 111).
6. Stranded Codes
 - a) The CNA advised the CSCN that there are 2 Stranded Codes with ported telephone numbers in 2 different NPAs, with a breakdown as follows:

NPA	Quantity of Stranded CO Codes with Ported TNs
519	1
705	1

- b) For the purposes of the 2006 NRUF, the CNA shall assume that the CO Codes that are stranded at the beginning of 2006 will remain stranded through 2006 and will be reclaimed some time in 2007.
7. The CNA shall provide for each NPA the total quantity of actual and forecasted CO Codes and a breakdown of the quantity of “Unassignable CO Codes” as per section 3.7 of the Canadian Central Office Code (NXX) Assignment Guidelines when the draft aggregate results are released, and in the subsequent 2006 NRUF Report to the CSCN after the aggregate results are finalized.
 8. The CNA shall provide two forecasts each for NPAs 613 and 819, one with Protected CO Codes required out to the Projected Exhaust Date and one without Protected CO Codes out to January 1, 2026. When submitting the 2006 NRUF results to NANPA, the CNA shall include the results for NPAs 819 and 613 without Protected CO Codes.
 9. The CNA shall establish the quantity of “Unassignable CO Codes” in accordance with the directions contained in section 3.7 of the Canadian Central Office Code (NXX) Assignment Guidelines approved by the Commission on September 14, 2004 in Telecom Decision CRTC 2004-60.
 10. The “CNA Codes” and the “Stranded Codes” shall not be used in the calculation of the average annual future growth used for the 7 to 20 year projection.
 11. The CNA shall not include any demand for CO Codes for proposed CLECs that did not submit NRUF forecasts.
 12. 10-digit dialing would likely be required in future NPA Relief and the CNA should assume that the overlay Relief Method will be used for the purpose of the NRUF.
 13. With respect to NPAs that are due to exhaust approximately in the 2025 timeframe, the CNA should exercise its best judgement in finalizing the forecast for those NPAs.