

**2004 G-NRUF Report
to the
Canadian Steering Committee on Numbering (CSCN)**

June 2004

Updated based on CSCN Instruction November 2004

Issued by:
Canadian Numbering Administrator
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 7 December 2001 in Decision CRTC 2001-748.

Included as attachments to this report are:

- 2004 G-NRUF Aggregate Results
- Quantity of CNA CO Codes as of 1 January 2004
- Historical G-NRUF Graphs for Canadian NPAs
- CSCN Letter dated 25 November 2003 (see section 7)

2. High Level Summary

The results from the 2004 G-NRUF are difficult to compare with the 2003 G-NRUF results due to two major factors:

- 1) The assumptions used for the 2004 G-NRUF are different from those used in preceding years.
- 2) Various Telecommunications Service Providers (TSPs) have submitted to the CNA a set of data that is different from the 2003 data and several new TSPs have emerged. The CNA has verified the input from various TSPs and the variance from previous years' input can be rationalized.

The impacts of each of the above factors will vary from NPA to NPA.

Specific significant changes are listed below:

- NPA 204 Projected Exhaust Date is now forecast for November 2023, which moves the Exhaust Date out by seven (7) years from the 2003 G-NRUF result of November 2016, primarily as a result of decreased demand in the area.
- NPA 250 Projected Exhaust Date is now forecast for May 2009, which moves the Exhaust Date in by almost three (3) years from the 2003 G-NRUF result of April 2012, as a result of increased demand in the area.
- NPA 403 Projected Exhaust Date is now forecast for September 2009, which moves the Exhaust Date in by five (5) years from the 2003 G-NRUF result of July 2014, as a result of increased demand in the area.

- NPA 416/647 Projected Exhaust Date is now forecast for May 2014, which moves the Exhaust Date in by two (2) years from the 2003 G-NRUF result of June 2016, primarily as a result of increased demand in the area.
- NPA 418 Projected Exhaust Date is now forecast for March 2013, which moves the Exhaust Date out by almost two (2) years from the 2003 G-NRUF result of July 2011, primarily as a result of decreased forecast demand in the area.
- NPA 778 Projected Exhaust Date is now forecast for August 2018, which moves the Exhaust Date in by ten (10) years from the 2003 G-NRUF result of August 2028, primarily as a result of increased demand in the area
- NPA 780 Projected Exhaust Date is now forecast for November 2011, which moves the Exhaust Date in by six (6) years from the 2003 G-NRUF result of October 2017, primarily as a result of increased demand in the area.

NPAs in or entering Relief Planning

NPA	2003 G-NRUF View	2004 G-NRUF View	Remarks
250	Apr. 2012	May 2009	Entering Relief Planning
403	Jul. 2014	Sep. 2009	Entering Relief Planning
514	Jul. 2007	Oct. 2007	NPA 438 Distributed Overlay (24 Sep. 2005) Proposed (28 Oct. 2006)
519	Dec. 2007	Oct. 2007	NPA 226 Distributed Overlay (21 Oct. 2006)
613 ¹	Dec. 2012	Jun. 2013	10-D dialing (4Q 2006)
780	Oct. 2017	Nov. 2011	Entering Relief Planning
819 ¹	Beyond 2023	Beyond 2024	10-D dialing (4Q 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	2000	2001	2002	2003	2004
204	Manitoba	Jan. 2015	Dec. 2017	Nov. 2009	Dec. 2016	Nov. 2023
250	BC (Island & Interior)	Jan. 2009	Apr. 2007	Sep. 2009	Apr. 2012	May 2009
306	Saskatchewan	Dec. 2015	Oct. 2034	Dec. 2021	Beyond 2023	Beyond 2024
403	S. Alberta	Nov. 2008	Sep. 2008	Apr. 2010	Jul. 2014	Sep. 2009
416 / 647	Toronto	Apr. 2008	Oct. 2010	Aug. 2012	Jun. 2016	May 2014 Nov. 2023
418	N. E. Quebec	Feb. 2011	Aug. 2010	May 2013	Jul. 2011	Mar. 2013
450	Montreal Fringe	Dec. 2015	May 2017	May 2030	Beyond 2023	Apr. 2025
506	New Brunswick	May 2020	2052+	Aug. 2047	Beyond 2023	Beyond 2024
514 / 438	Montreal	Jun. 2004, Apr. 2013	May 2005	Apr. 2006	Jul. 2007, Dec. 2022	Oct. 2007 Jul. 2023
519 / 226	S. Ontario	Jan. 2006, Jul. 2020	Jul. 2006	Nov. 2006	Dec. 2007	Oct. 2007
604	Vancouver area	Jul. 2003	Dec. 2040	Nov. 2021	Beyond 2023	Beyond 2024
613	Ottawa area	Apr. 2008, 2025	Jul. 2011	Dec. 2013	Dec. 2012	Jun. 2013
705	N. E. Ontario	Jul. 2019	Sep. 2027	Aug. 2022	May 2022	Nov. 2022
709	Nfld & Labrador	Sep. 2020	2048+	Jul. 2068	Beyond 2023	Beyond 2024
778	Vancouver EAS	In-service Nov. 2001	Oct. 2012	Oct. 2021	Beyond 2023	Aug. 2018
780	N. Alberta	Dec. 2011	May 2012	Jul. 2013	Oct. 2017	Nov. 2011
807	N.W. Ontario	Beyond forecast	Beyond forecast	Beyond forecast	Beyond 2023	Beyond 2024
819	N. E. Quebec	Dec. 2017	Jul. 2024	Nov. 2021	Beyond 2023	Beyond 2024
867	Yukon, NWT, Nunavut	Beyond forecast	Beyond forecast	Beyond forecast	Beyond 2023	Beyond 2024
902	Nova Scotia & PEI	Jun. 2014	Oct. 2023	Oct. 2013	Dec. 2013	Jul. 2014
905 / 289	Toronto Fringe	Sep. 2008	May 2011	Jun. 2018	Dec. 2022	Jul. 2023

4. Schedule of Future NRUF Activities in the Current Year

Due Date	NRUF Type	NRUF Format	NPA(s)
Jul. 01	R-NRUF	Format 2	250
Jul. 01	R-NRUF	Format 2	403
Jul. 01	R-NRUF	Format 2	780
Aug. 13	S-NRUF	As determined by RPC	514
Aug. 13	S-NRUF	Telecom Decision 2002-25	519
Aug. 13	S-NRUF	Format 2 – As determined by RPC	613
Aug. 13	S-NRUF	Format 2 – As determined by RPC	819

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

- a) Some TSPs continue to remain unaware of the significance and schedule for completing C-NRUFs. The CNA started contacting companies during the week of February 2nd. 52 companies submitted after February 2, 2004.
- b) TSPs confuse the differences between a G-NRUF, an S-NRUF and the Reserved and Held Report requirements.
- c) 24 companies had problems² 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 those companies that do not report on time, particularly for those companies that do not expect to apply for a CO Code in the near future.
- b) 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.
- c) 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).
- d) The C-NRUF Guideline establishes the G-NRUF due date, documented discussions take place at the CSCN, and the CNA sends out two requests a month apart, which should be sufficient warning that annual G-NRUF data will be due by a date certain.

² Not including companies that did not follow submission instructions.

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 25 November 2003.

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 CRTC Telecom Decision 2003-30.

8. G-NRUF Participation List

Company	OCN	Status
2034156 Ontario Inc.	743B	Received
Abitibi-Price Telephone Exchange	8201	Received
Aliant Telecom (Mobility)	329A	Received
Aliant Telecom (NB)	8090	Received
Aliant Telecom (NF)	8085	Received
Aliant Telecom (NS)	8089	Received
Aliant Telecom (PEI)	8087	Received
Allstream	8304	Received
Amtelecom Inc.	8202	Received
Axxent Corp.	4849	Stranded
Bell Canada	8050	Received
Bell Canada	8051	Received
Bell Mobility	6574	Received
Bell West Inc.	2933	Received
Brooke Telecom Co-operative Ltd.	8204	Received
Bruce Municipal Telephone System	8205	Received
C1 Communications	4789	Stranded
Call-Net Communications	8377	Received
Cochrane Public Utilities Commission	8206	Received
COGECO Cable Canada Inc.	4591	Received
CoopTel de telecommunication	8242	Received
Dryden Municipal Telephone System	8210	Received
EastLink Limited	4878	Received
ExaTEL Inc.	3147	Received
Execulink Telecom Inc.	8216	Received
Futureway Communications Inc.	4297	Received
Gateway Tel	4349	Stranded
Globalstar	6996	Received

Company	OCN	Status
Globility	201A	Received
Gosfield North Communication Co-operative Ltd.	8212	Received
GT Group Telecom Services Corp.	8506	Received
Hay Communications Co-operative Ltd.	8214	Received
Huron Telecommunications Co-operative Ltd.	8215	Received
ISP Telecom	4727	Received
KMTS	8218	Received
La Cie de Telephone de Courcelles Inc.	8208	Received
La Cie de Telephone de Warwick	8243	Received
La Cie de Telephone Nantes inc.	8256	Received
La Compagne de Telephone Upton	8241	Received
La Compagnie de Telephone de Lambton Inc.	8219	Received
La Compagnie de Telephone de St-Victor	8235	Received
La Corporation de Telephone de la Baie (1993)	8236	Received
Lansdowne Rural Telephone Ltd.	8220	Received
Le Telephone de St-Ephrem Inc	8233	Received
Le Telephone de St-Liboire de Bagot Inc.	8234	Received
Managed Network Systems Inc.	2776	Received
Maskatel	8254	Received
MicroCell Connexions	5643	Received
MicroCell Connexions	8820	Received
Mornington Communications Co-operative Ltd.	8223	Received
MTS Communications Inc	8088	Received
MTS Mobility	991B	Received
Nexicom Telecommunications Inc.	8211	Received
Nexicom Telephones Inc.	8230	Received
Norigen Communications Inc.	4981	Stranded
North Frontenac Telephone Company	8225	Received
North Renfrew Telephone Company Ltd.	8227	Received
Northern Telephone Ltd.	8228	Received
Northwestel	8092	Received
Northwestel Mobility Inc.	9861	Received
O.N. Tel	8229	Received
Packet-Tel	Proposed CLEC	Received
People's Telephone Company of Forest	8231	Received
Prince Rupert City Telephones	8082	Received
Quadro Communications Co-operative Inc.	8203	Received
RipNET Limited	094A	Received
Rogers AT&T Wireless	8821	Received
Roxborough Telephone Compnay Ltd.	8232	Received
SaskTel	8091	Received
SaskTel Mobility	9868	Received
Shaw Telecom Inc.	119C	Received
Sogetel Inc.	8237	Received
Telebec Ltee.	8239	Received

Company	OCN	Status
Telephone Guevremont Inc.	8213	Received
Telephone Milot Inc.	8221	Received
TELUS	8084	Received
TELUS	8086	Received
TELUS Integrated Communications	2782	Received
TELUS Mobility	8301	Received
TELUS Mobility	8303	Received
TELUS Mobility	8819	Received
TELUS Quebec	2243	Received
TELUS Quebec	8083	Received
Thunder Bay Telephone Mobility	9937	Received
Thunder Bay Telephone	8094	Received
Tuckersmith Communications Co-operative Ltd.	8240	Received
Videotron Telecom (1998) Ltee	8306	Received
Westport Telephone Company Ltd.	8244	Received
Wightman Telephone Ltd.	8245	Received
Yak Local Exchange Carrier Inc	Proposed CLEC	Received

Conclusion

In accordance with Section 4, Item 10 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 2004 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 25 November 2003.

The CNA notes that the Canadian telecommunications environment continues to go through a period of significant change due to increased competition in local exchange and wireless markets and the recent upturn in the economy. The general trend since the 2003 G-NRUF has been towards the advance of the Projected Exhaust Dates of almost all NPAs.

The results from the 2004 G-NRUF are difficult to compare with the 2003 G-NRUF results due to two major factors:

- 1) The assumptions used for the 2004 G-NRUF are somewhat different from those used in preceding years.
- 2) Various TSPs have submitted to the CNA a set of data that is somewhat different from the 2003 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 2004 and 2005, 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 based upon more recent events such as improvements in the Canadian economy and, hence, the telecommunication market, as well as some other factors such as unstable world politics. 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. However, the CNA has recently completed a study of actual CO Code Assignments to TSPs from January 2000 until the end of 2003 compared to forecasts for the same period. It was noted that over the study period, actual assignments have consistently under run the forecast by approximately 1/3 on average. This would lead to the conclusion that the forecast could be in the range of 30% high. The results of the study appear in the chart below.

Over the 4 years, there was no single group of TSPs that was responsible for the variances and no single TSP was accurate in their forecasting. It should be noted that there are some factors that altered the results to some extent such as CO Code reclamations and database cleanup of inaccurate data from the initial download. It should also be noted that the trend in the forecast appears to be towards greater accuracy.

**CO Code Assignment Rate
(% of Forecast)**

NPA / Years	2000	2001	2002	2003	Average
204	90.9%	57.8%	12.2%	25.0%	46.5%
250	26.6%	58.2%	43.4%	80.8%	52.2%
289-905	48.4%	28.2%	57.6%	117.2%	62.9%
306	-31.8%	77.8%	25.0%	50.0%	30.2%
403	95.6%	181.5%	50.0%	104.5%	107.9%
416-647	60.0%	78.9%	60.3%	65.4%	66.2%
418	46.3%	53.7%	181.0%	47.1%	82.0%
450	80.9%	71.1%	73.7%	34.8%	65.1%
506	25.0%	76.9%	25.0%	64.0%	47.7%
514	82.5%	83.9%	68.3%	55.1%	72.5%
519	88.1%	65.4%	61.9%	41.9%	64.3%
604	44.9%	53.8%	100.0%	100.0%	74.7%
613	84.1%	71.4%	96.3%	50.0%	75.5%
705	111.1%	54.5%	46.4%	56.7%	67.2%
709	75.0%	20.0%	85.7%	66.7%	61.8%
778		17.5%	32.6%	122.7%	57.6%
780	128.1%	106.3%	64.0%	158.8%	114.3%
807	22.2%	7.7%	0.0%	400.0%	107.5%
819	57.1%	50.0%	100.0%	56.3%	65.8%
867	-3.6%	0.0%	100.0%	25.0%	30.4%
902	31.7%	127.6%	65.8%	45.9%	67.8%
	58.2%	63.9%	64.2%	84.2%	

During CSCN 71 and CSCN 72, the CNA was requested to provide the following information related to the above table:

Numerator = Actual CO Code Assignments in an NPA

Denominator = Raw Forecasts from current and prospective CO Code Holders

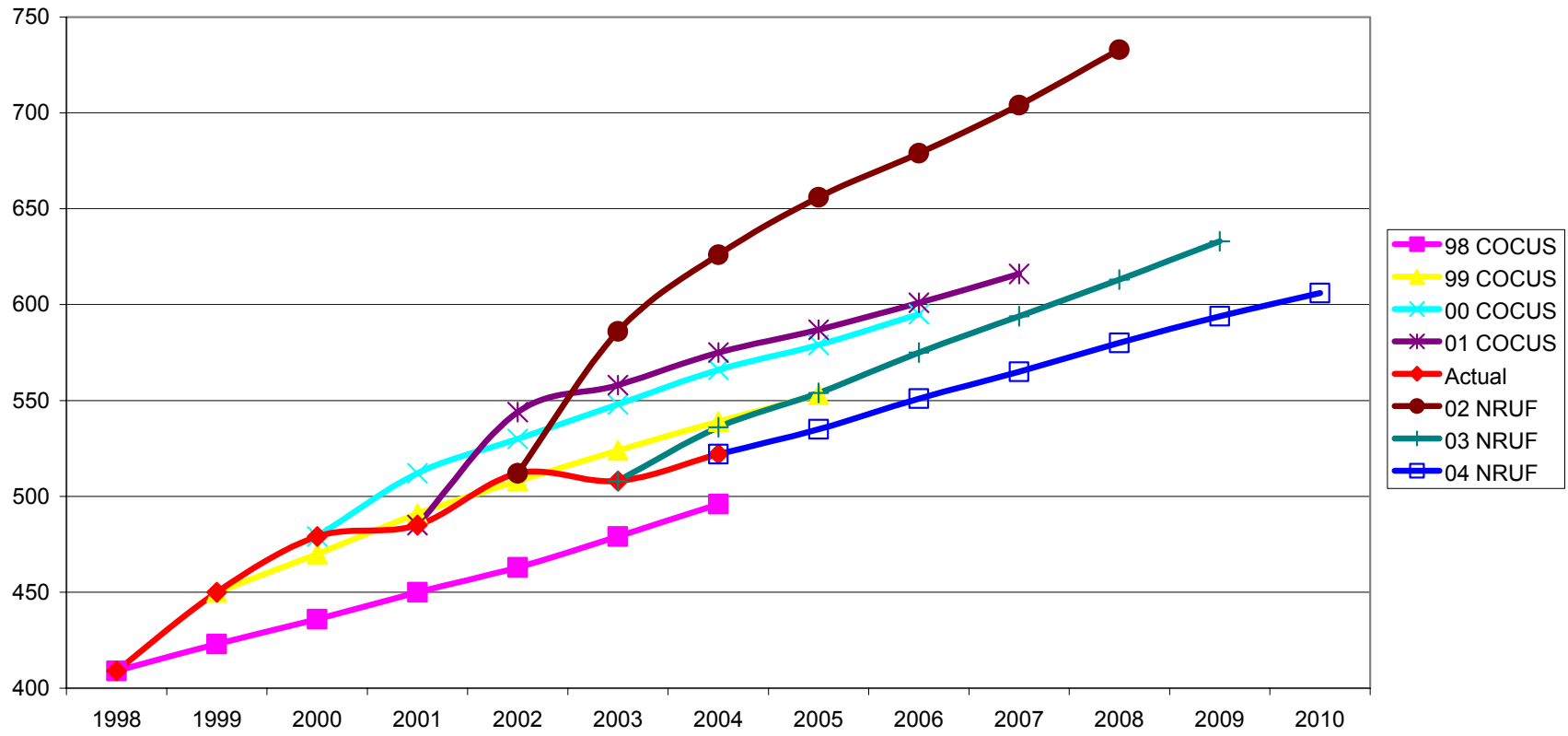
2004 G–NRUF Aggregate Results

As of January 1																					
NPA / Years	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
204	522	535	551	565	580	594	606	620	634	648	662	676	690	704	718	732	746	760	774	788	802
250	623	658	691	720	752	787	879	912	945	978	1011	1044	1077	1110	1143	1176	1209	1242	1275	1308	1341
289-905	803	841	879	922	962	996	1030	1072	1114	1156	1198	1240	1282	1324	1366	1408	1450	1492	1534	1576	1669
306	538	543	557	562	575	584	595	605	615	625	635	645	655	665	675	685	695	705	715	725	735
403	561	611	655	696	736	777	870	912	954	996	1038	1080	1122	1164	1206	1248	1290	1332	1374	1416	1458
416-647	917	973	1033	1102	1170	1241	1309	1375	1441	1507	1573	1664	1730	1796	1862	1928	1994	2060	2126	2192	2309
418	565	588	612	638	664	692	716	742	768	794	874	900	926	952	978	1004	1030	1056	1082	1108	1134
450	420	441	457	475	494	510	525	543	561	579	597	615	633	651	669	687	705	723	741	759	777
506	309	328	342	361	374	387	400	416	432	448	464	480	496	512	528	544	560	576	592	608	624
514	626	669	715	762	871	910	952	1000	1048	1096	1144	1192	1240	1288	1336	1384	1432	1480	1528	1576	1678
519	670	704	741	777	864	884	911	945	979	1013	1047	1081	1115	1149	1183	1217	1251	1285	1319	1353	1387
604	588	600	611	615	625	629	634	642	650	658	666	674	682	690	698	706	714	722	730	738	746
613	586	622	653	608	642	669	693	723	753	783	880	910	940	970	1000	1030	1060	1090	1120	1150	1180
705	446	458	482	497	510	532	555	574	593	612	631	650	669	688	707	726	745	764	783	853	872
709	379	394	408	420	431	441	453	466	479	492	505	518	531	544	557	570	583	596	609	622	635
778	119	172	222	275	317	359	396	443	490	537	584	631	678	725	772	819	927	974	1021	1068	1115
780	528	569	614	650	684	709	733	768	863	898	933	968	1003	1038	1073	1108	1143	1178	1213	1248	1283
807	182	193	199	207	209	213	214	220	226	232	238	244	250	256	262	268	274	280	286	292	298
819	679	705	721	494	506	524	534	548	562	576	590	604	618	632	646	660	674	688	702	716	730
867	206	207	175	176	177	179	180	182	184	186	188	190	192	194	196	198	200	202	204	206	208
902	499	542	571	597	623	648	669	698	727	756	785	867	896	925	954	983	1012	1041	1070	1099	1128

Quantity of CNA CO Codes as of 1 January 2004

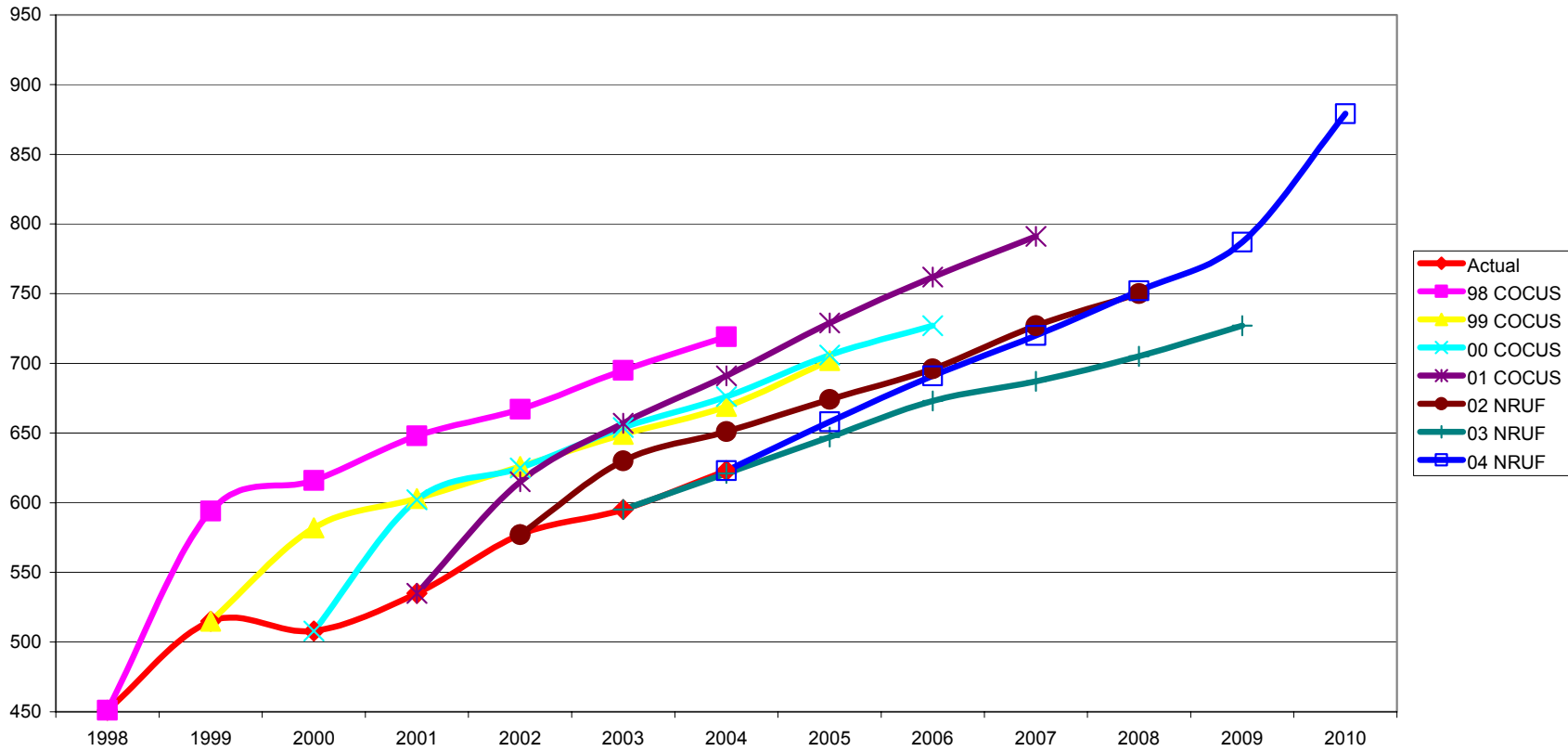
January 1, 2004																					
NPAs	204	250	289-905	306	403	416-647	418	450	506	514	519	604	613	705	709	778	780	807	819	867	902
Initial Codes	0	0	0	0	0	0	0	0	0	12	15	0	0	0	0	0	0	0	0	0	0
Protected	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	1	0	0	0	0
N00 Codes	8	8	16	8	8	13	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
N11 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	4	4	7	5	4	3	3	4	3	6	8	3	5	5	3	7	9	2
Future NPAs	8	9	47	9	19	46	12	19	21	14	4	15	18	16	16	37	15	27	18	30	6
Limited Availability (USA 7D Problem)	0	1	0	1	1	0	0	0	1	0	0	0	1	0	0	0	0	1	2	0	0
911 Misdialed 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	63	0	0	0	0	0	225	0	0
New Unknown Entrants	3	3	15	3	4	6	3	5	3	6	10	2	7	5	2	2	4	2	2	2	3
Total	36	40	110	40	49	97	43	49	51	52	49	41	119	50	45	66	45	57	278	66	33

NPA 204 Manitoba



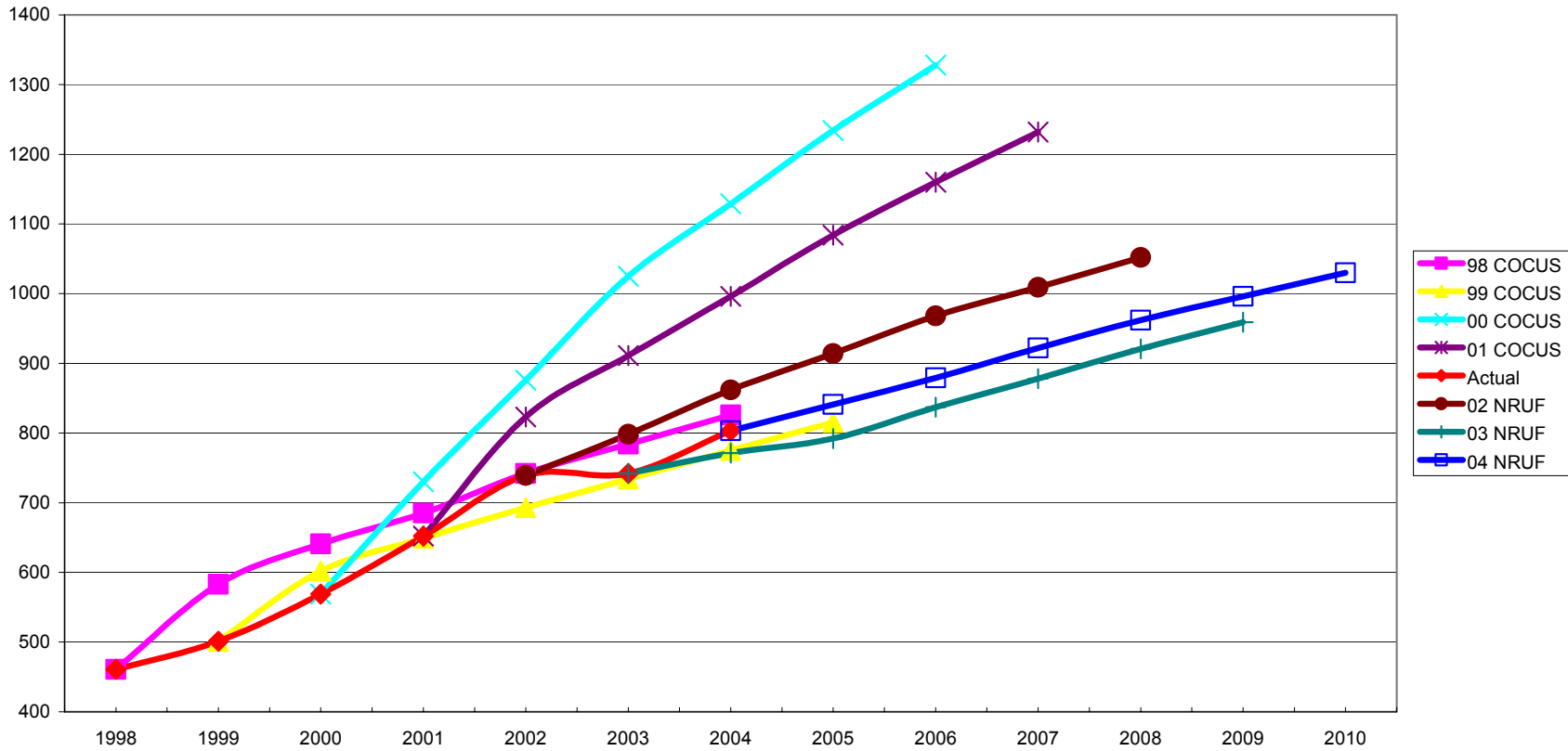
Historical G-NRUF Graphs for Canadian NPAs

NPA 250 British Columbia



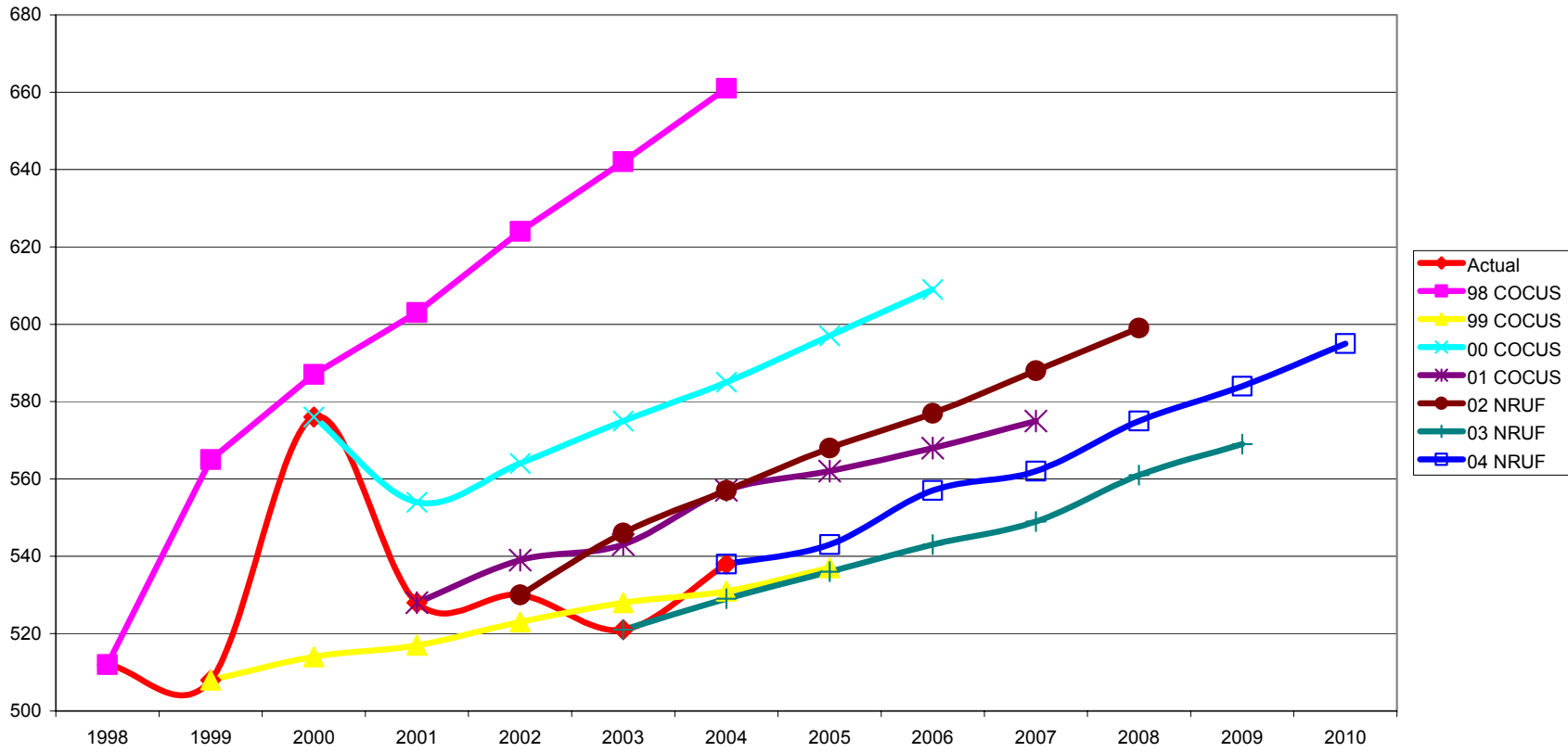
Historical G-NRUF Graphs for Canadian NPAs

NPA 289/905 Ontario



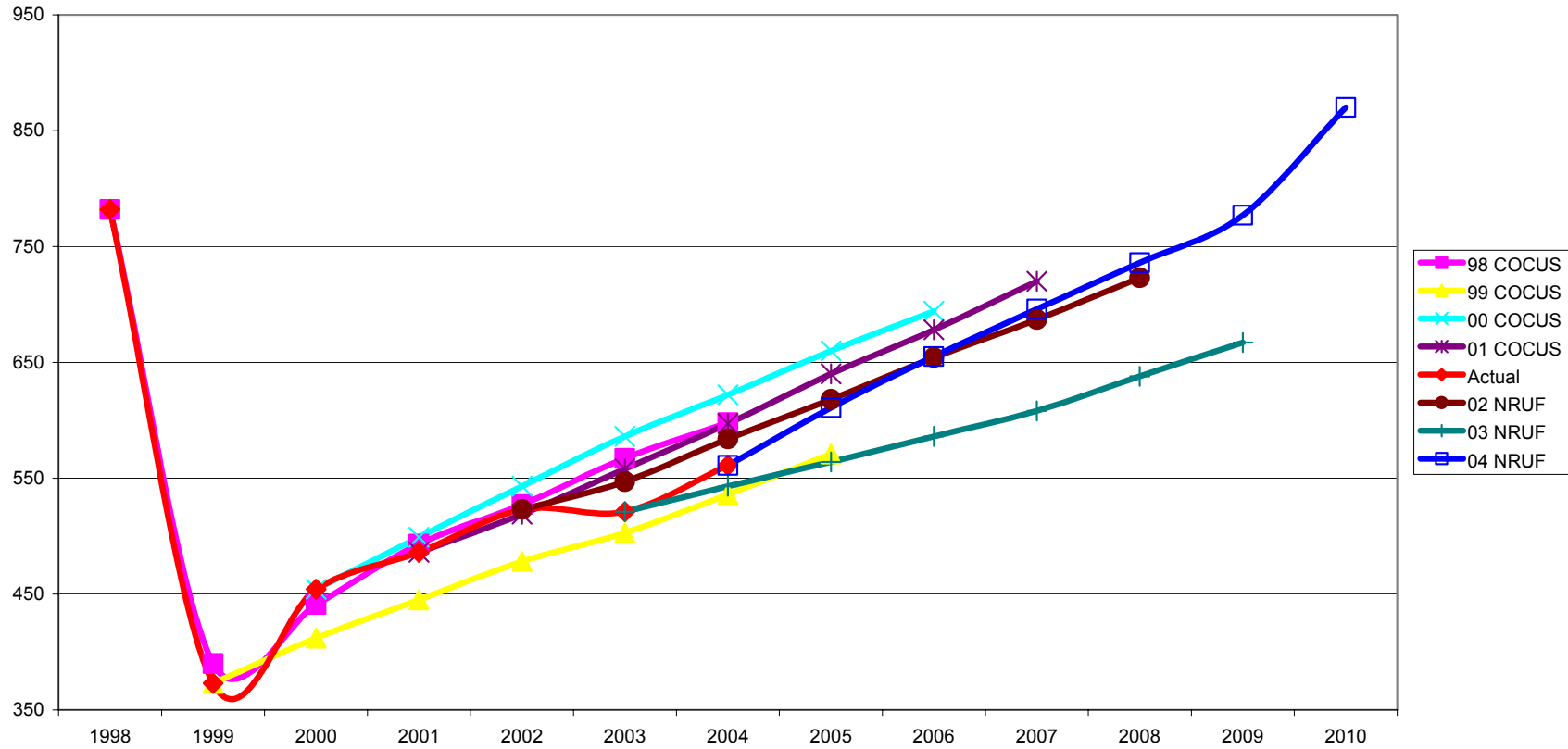
Historical G-NRUF Graphs for Canadian NPAs

NPA 306 Saskatchewan



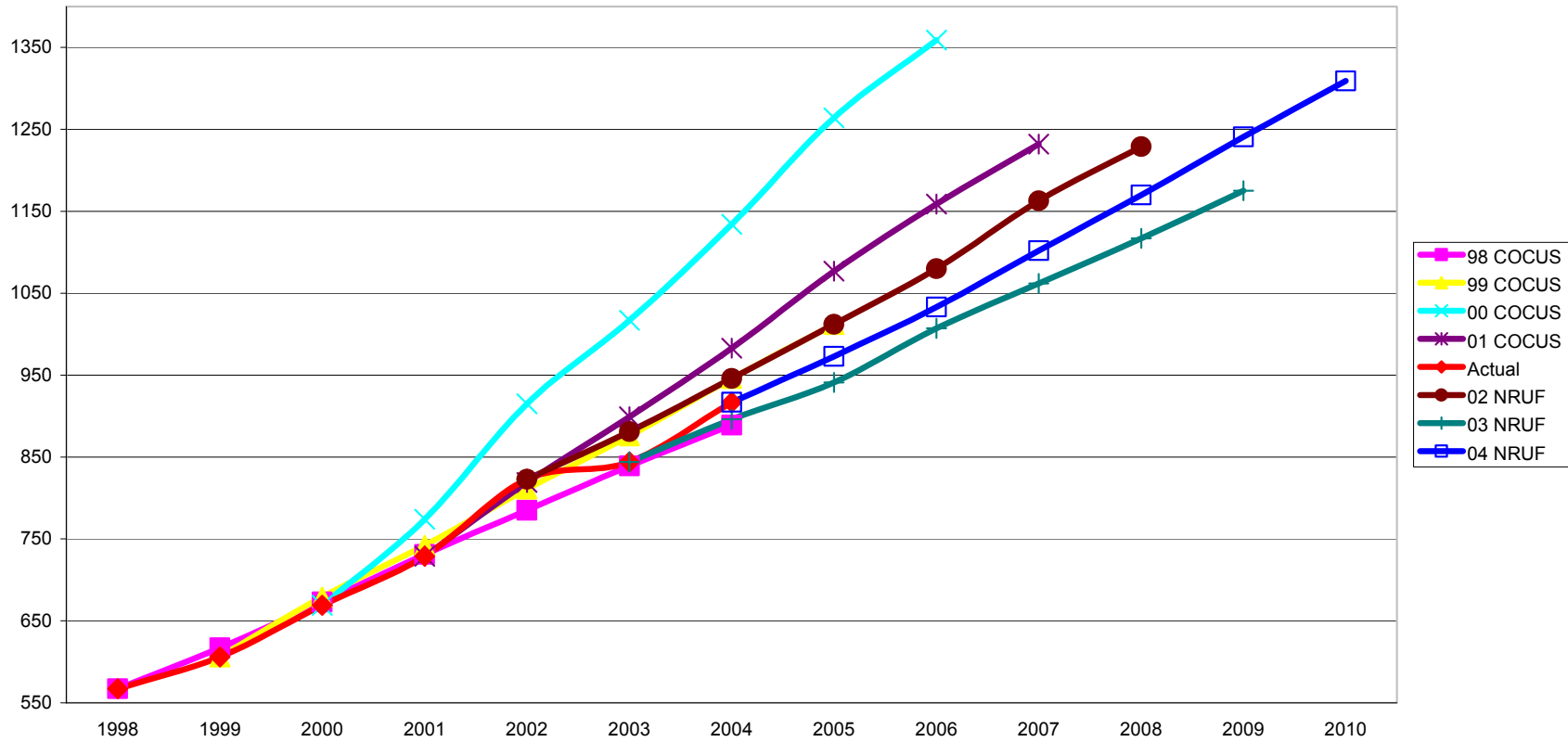
Historical G-NRUF Graphs for Canadian NPAs

NPA 403 Alberta



Historical G–NRUF Graphs for Canadian NPAs

NPA 416/647 Ontario



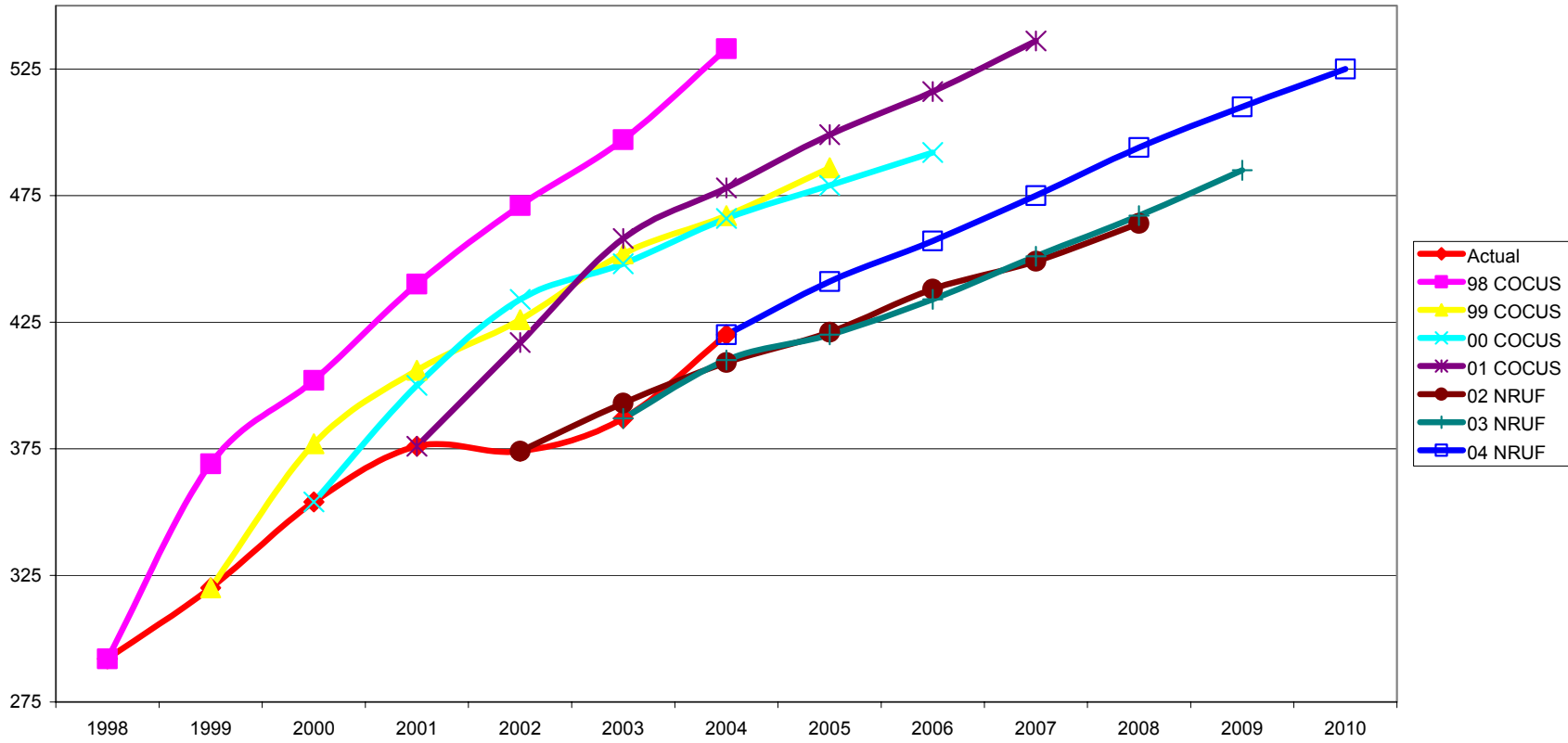
Historical G-NRUF Graphs for Canadian NPAs

NPA 418 Quebec



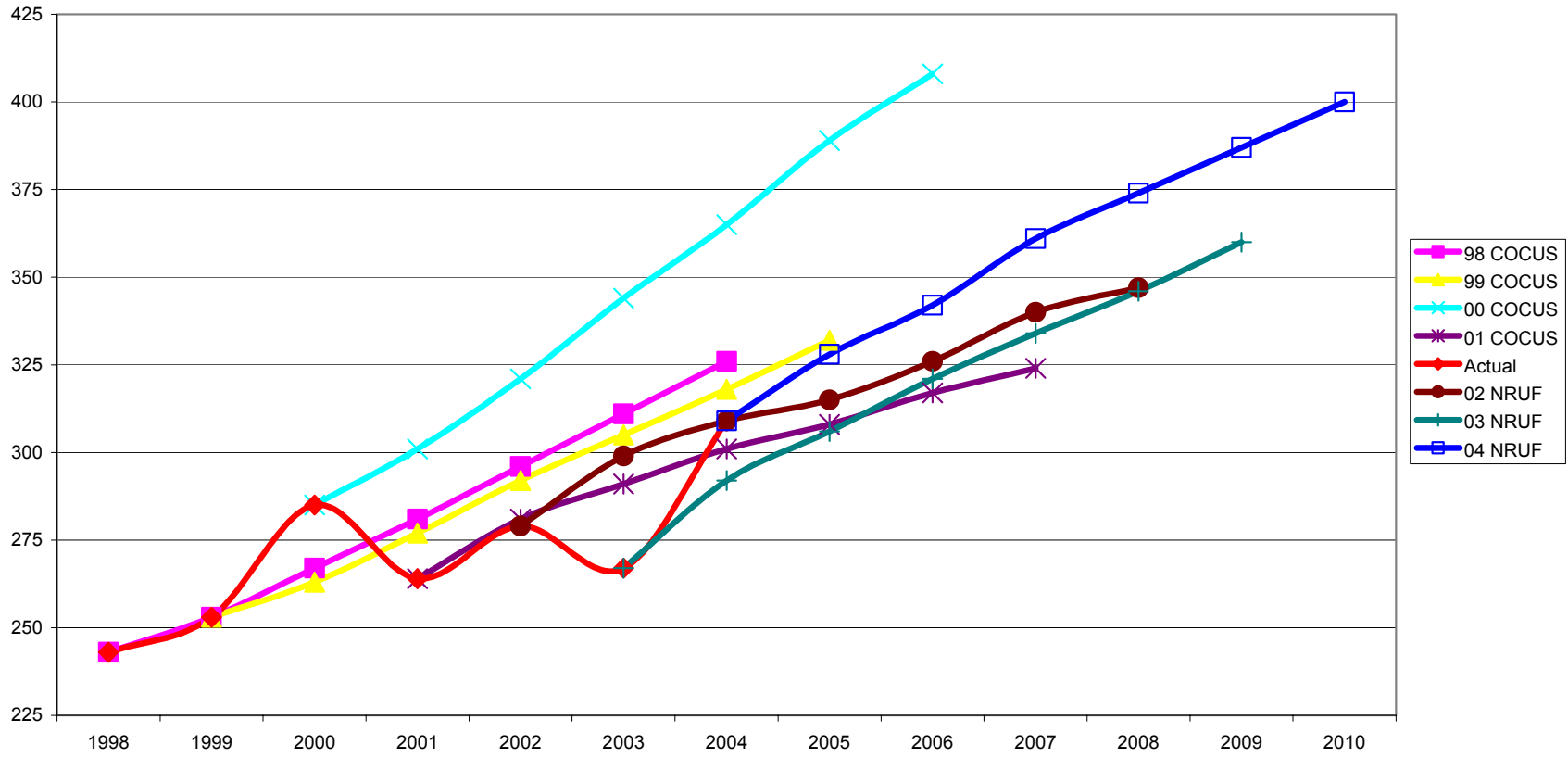
Historical G-NRUF Graphs for Canadian NPAs

NPA 450 Quebec



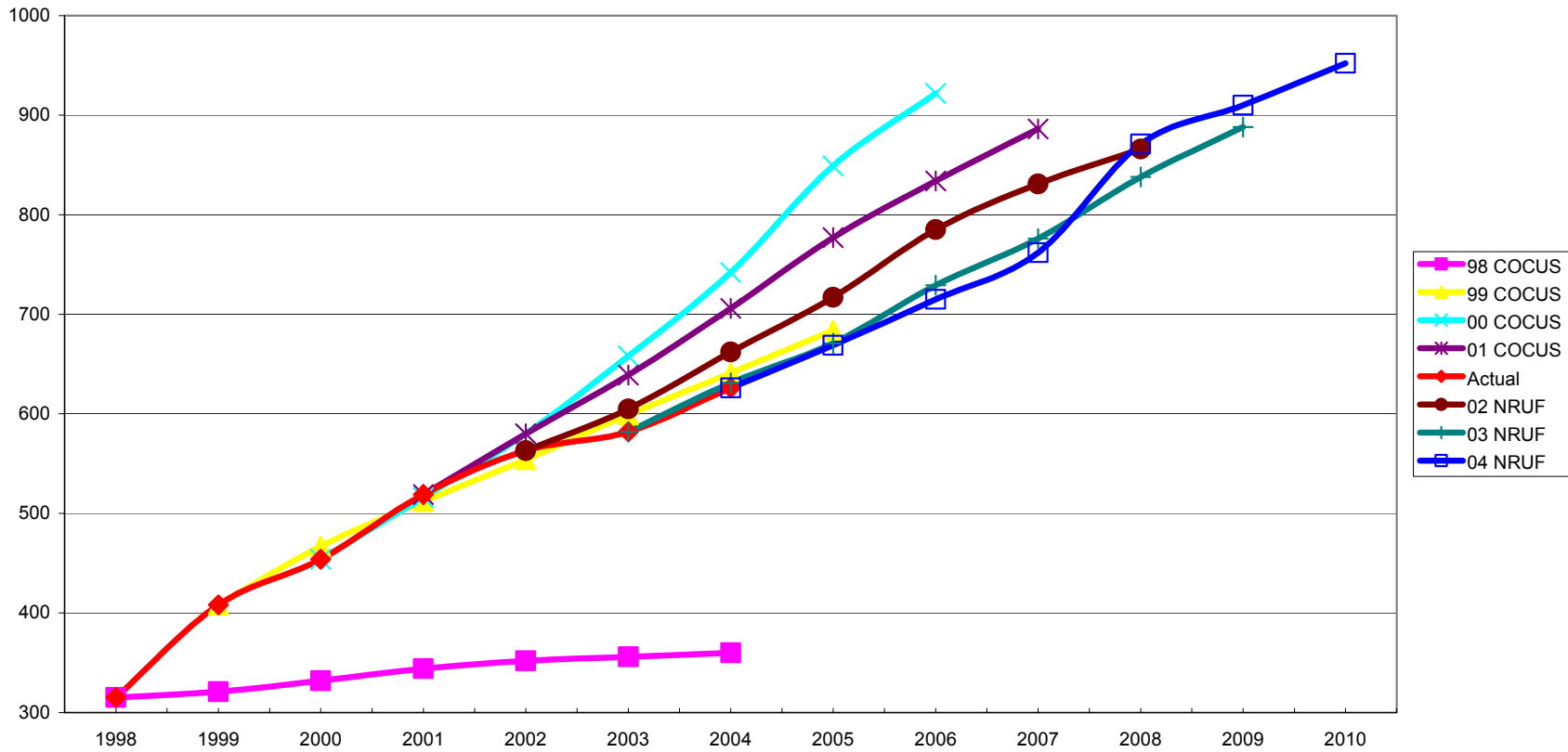
Historical G-NRUF Graphs for Canadian NPAs

NPA 506 New Brunswick



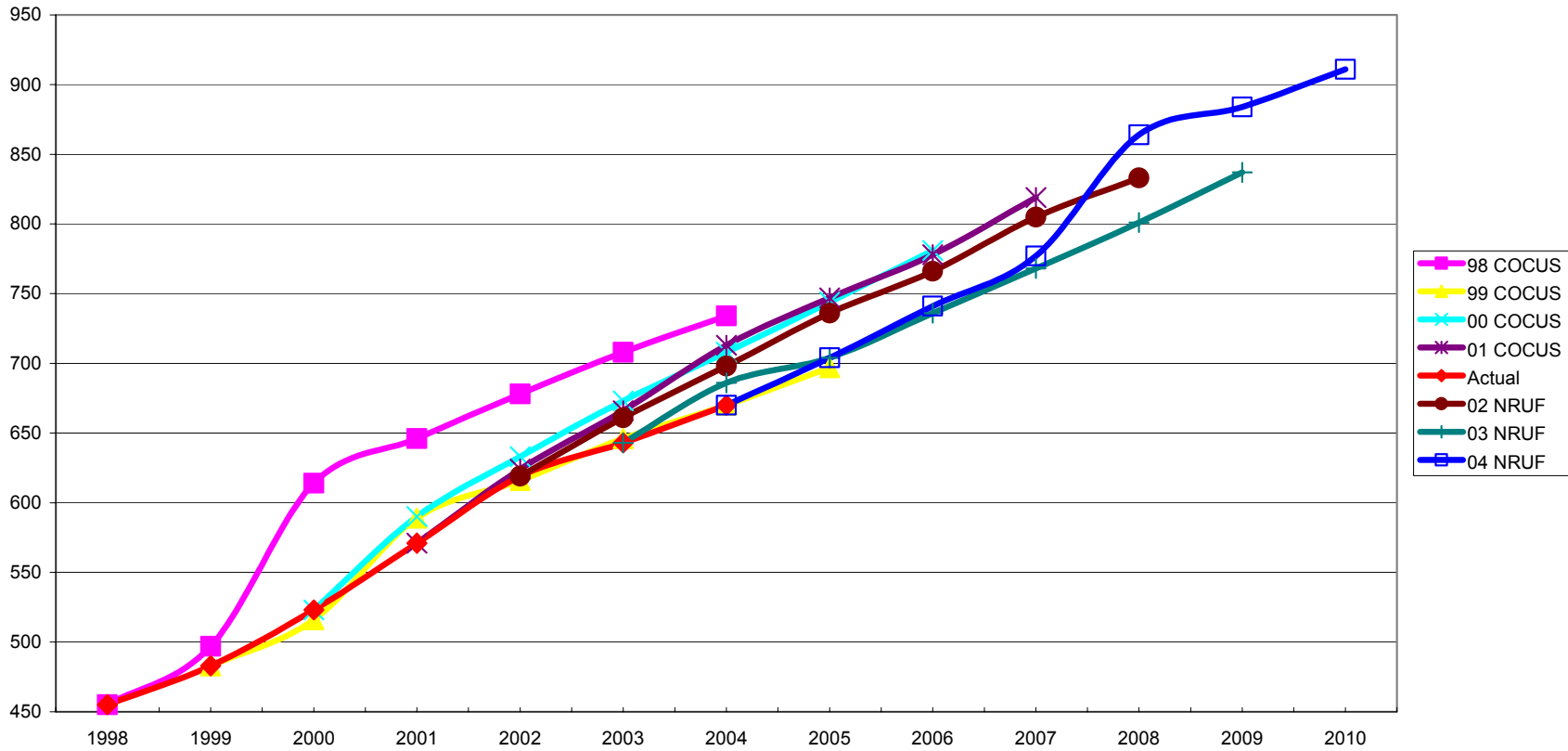
Historical G-NRUF Graphs for Canadian NPAs

NPA 514 Quebec



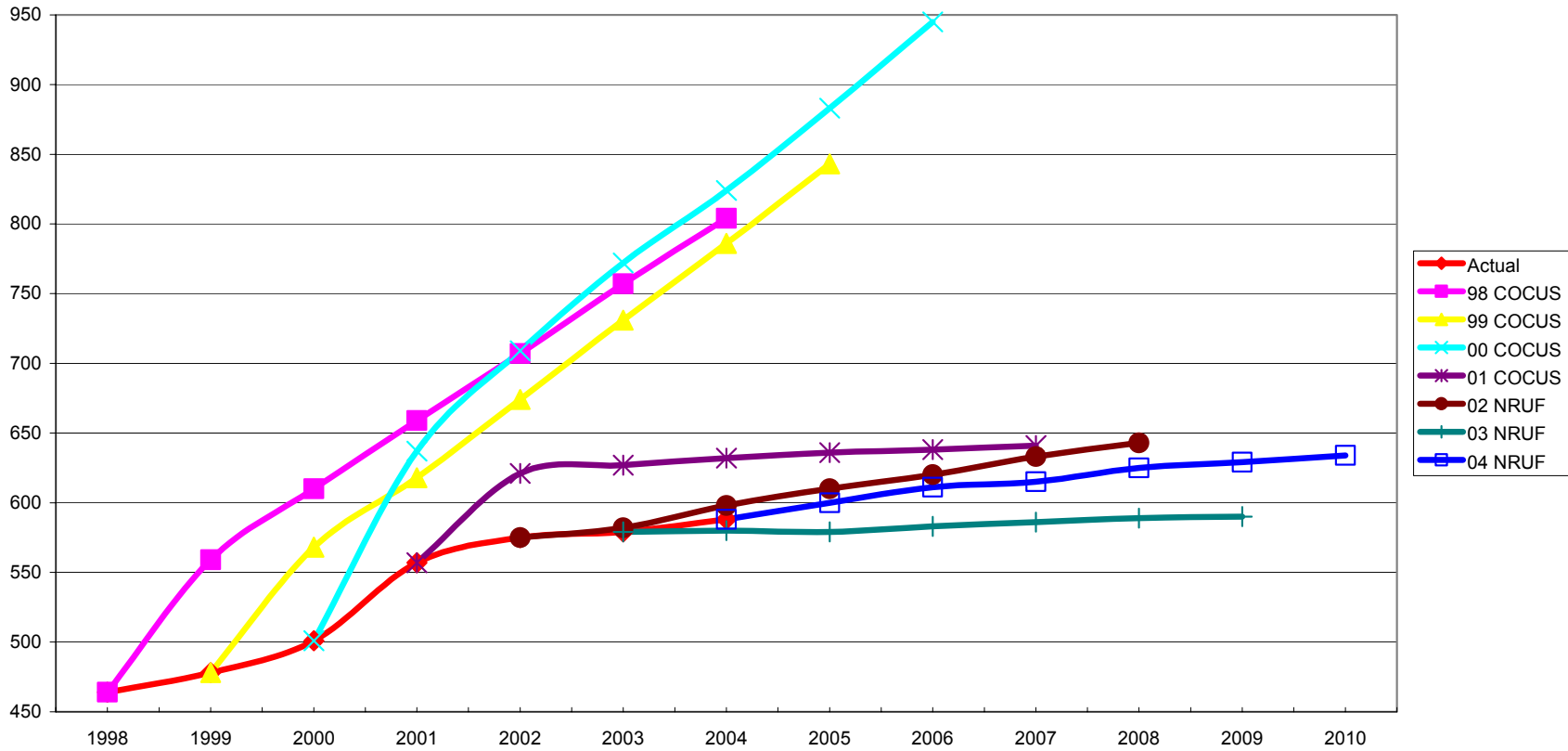
Historical G-NRUF Graphs for Canadian NPAs

NPA 519 Ontario



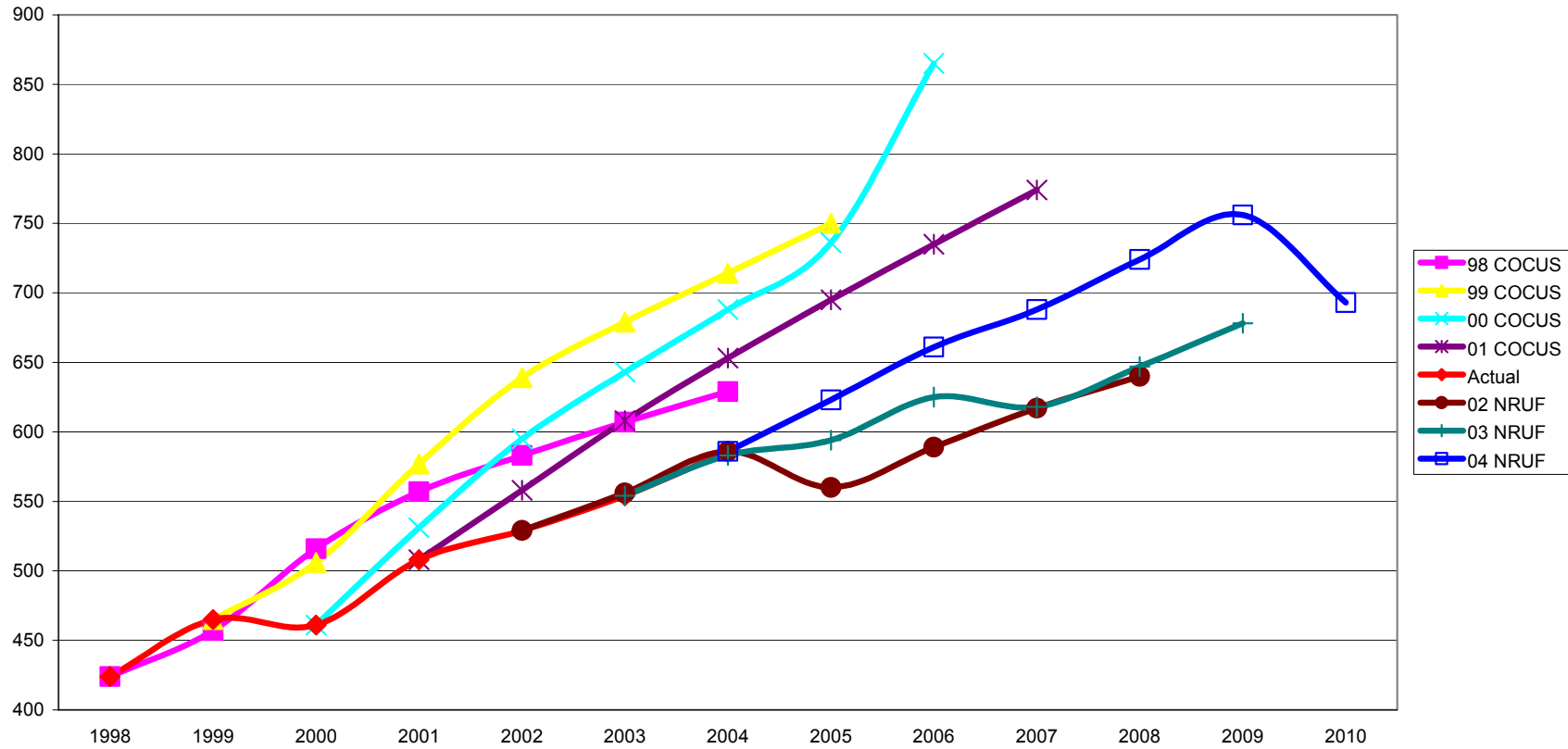
Historical G-NRUF Graphs for Canadian NPAs

NPA 604 British Cumbia



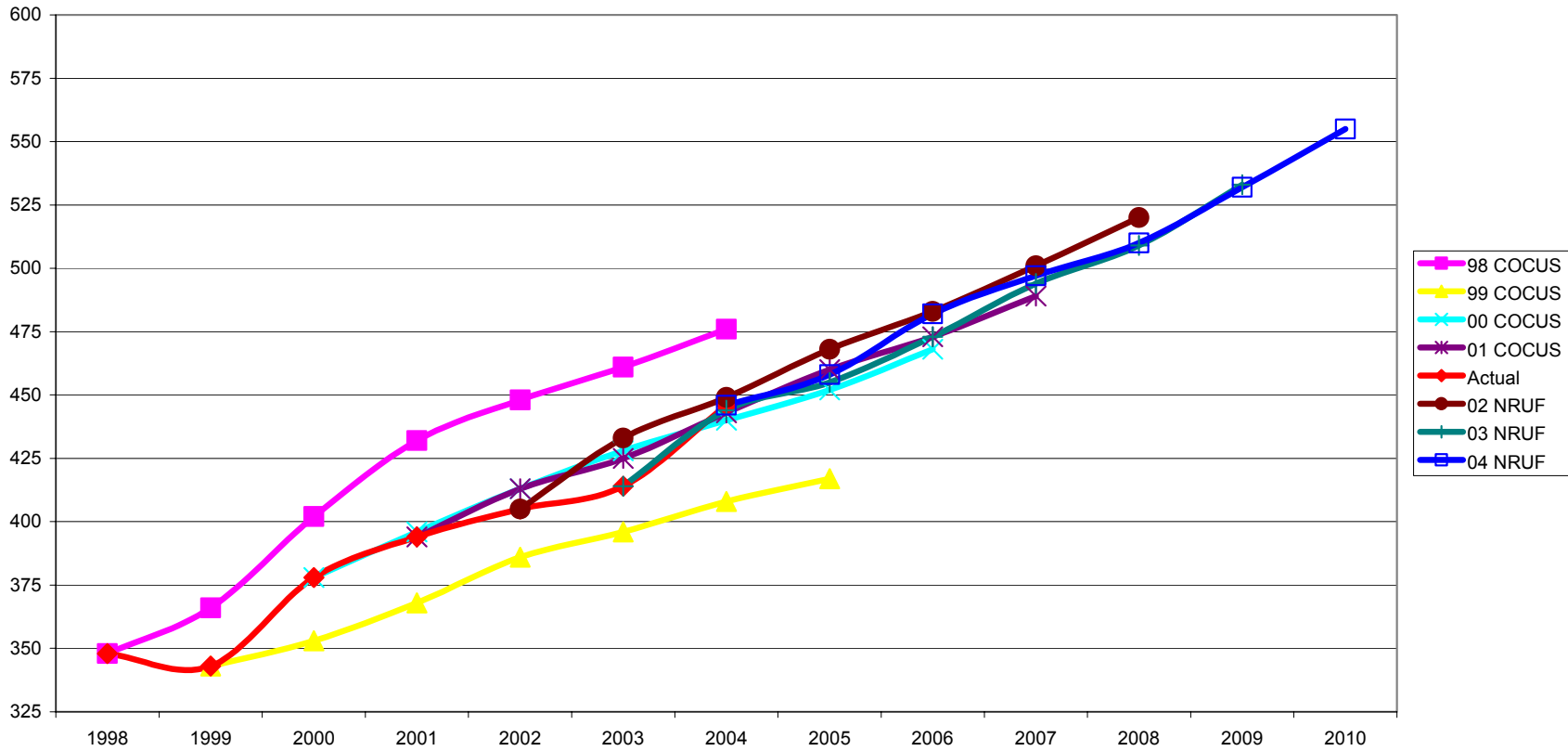
Historical G-NRUF Graphs for Canadian NPAs

NPA 613 Ontario (includes all protected codes)



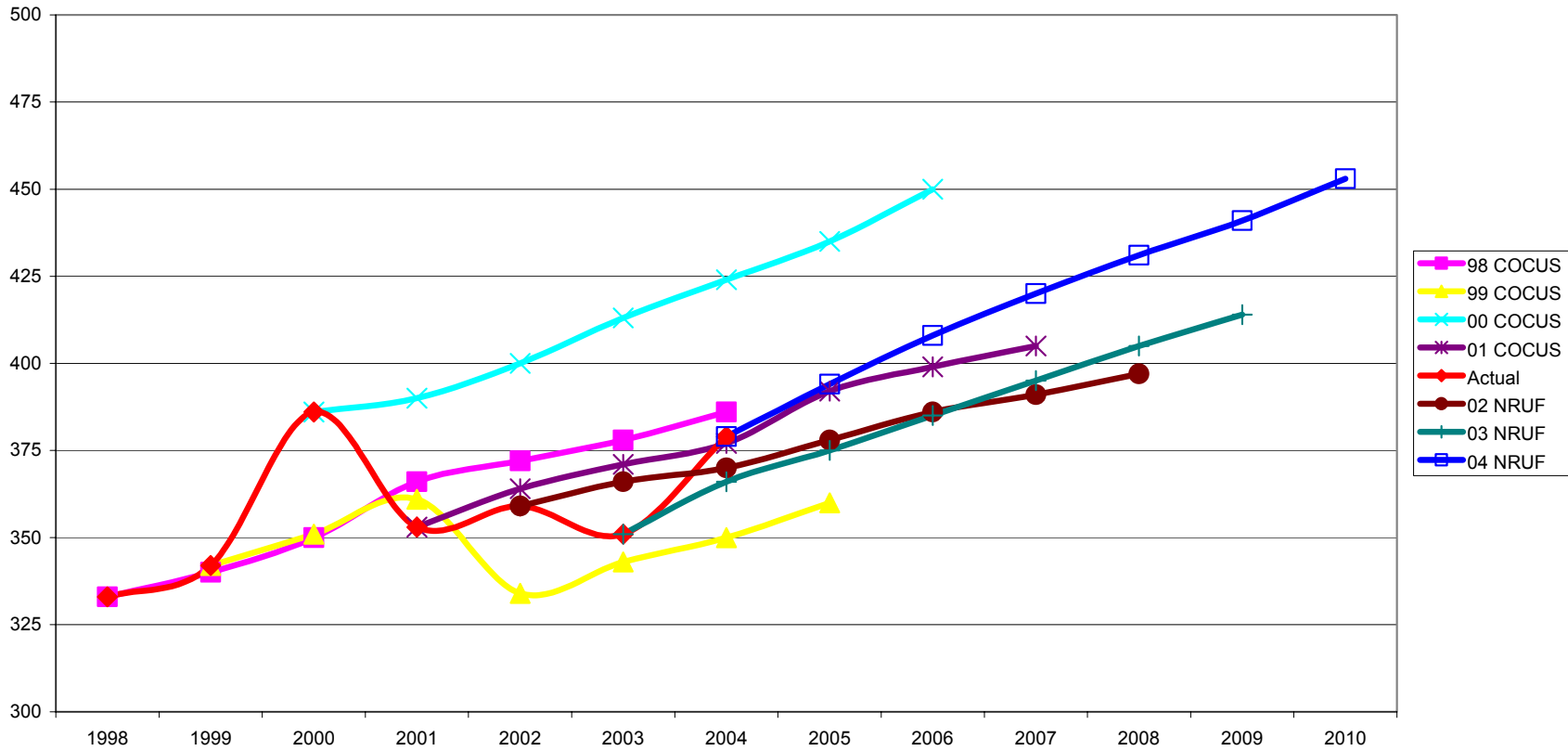
Historical G-NRUF Graphs for Canadian NPAs

NPA 705 Ontario



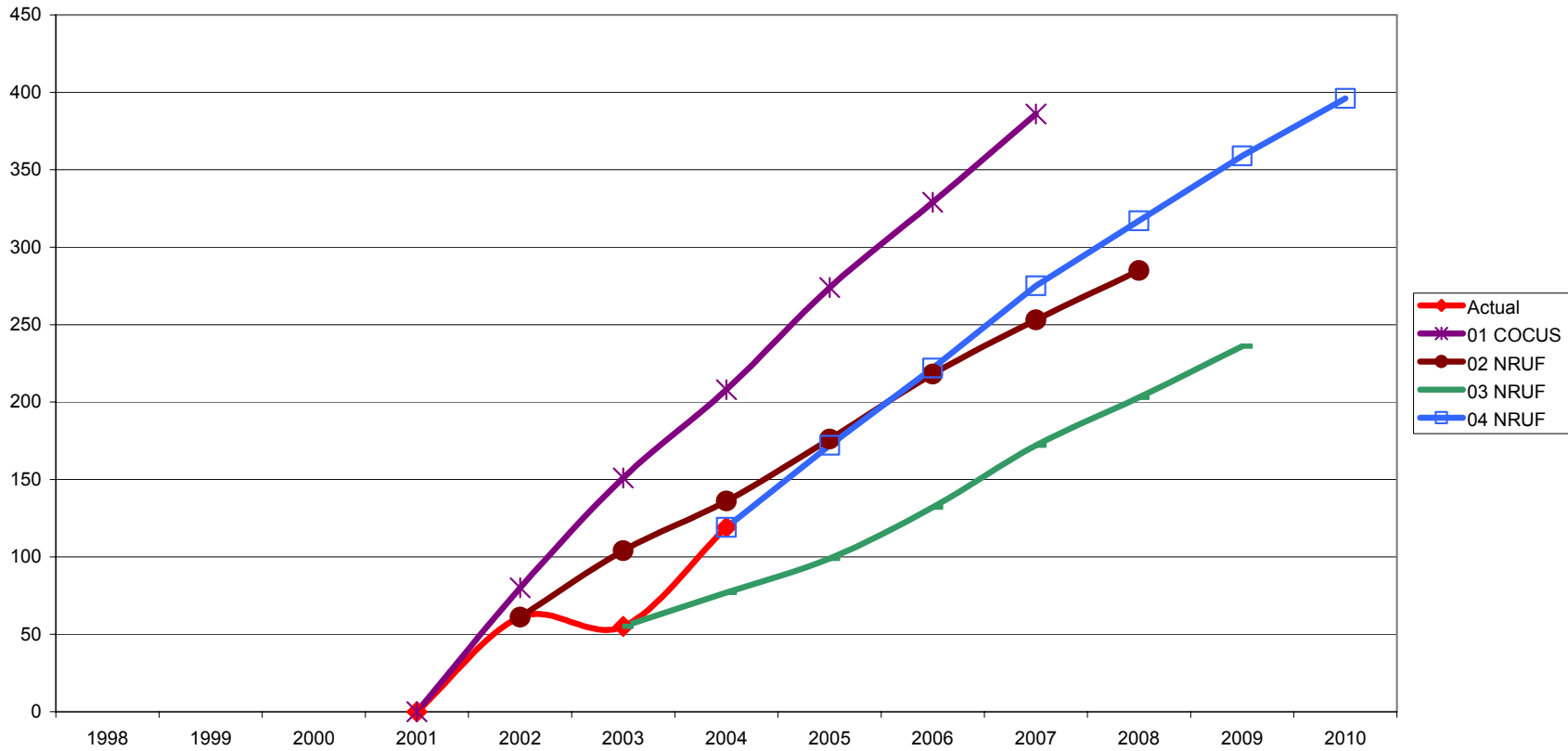
Historical G-NRUF Graphs for Canadian NPAs

NPA 709 Newfoundland



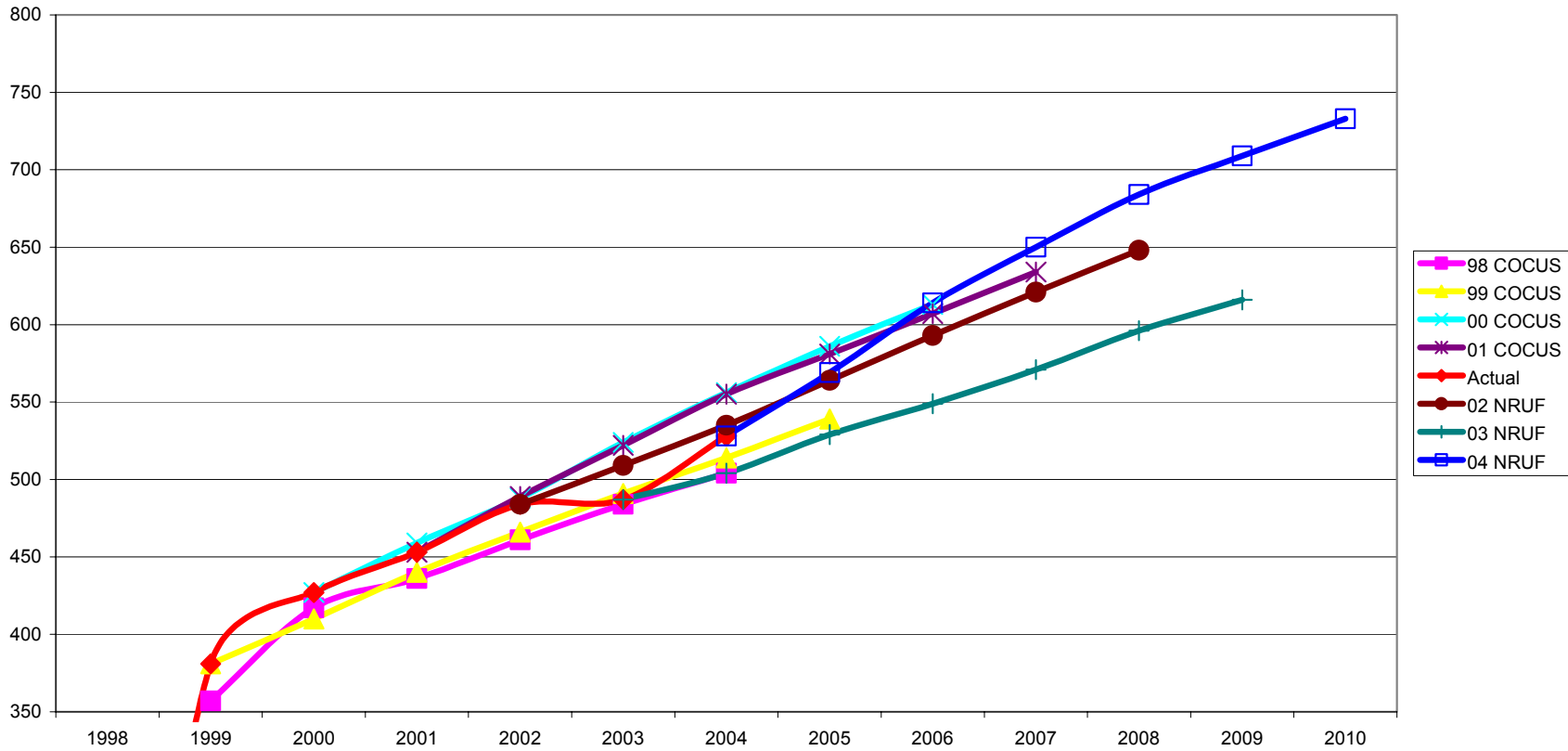
Historical G-NRUF Graphs for Canadian NPAs

NPA 778 British Columbia



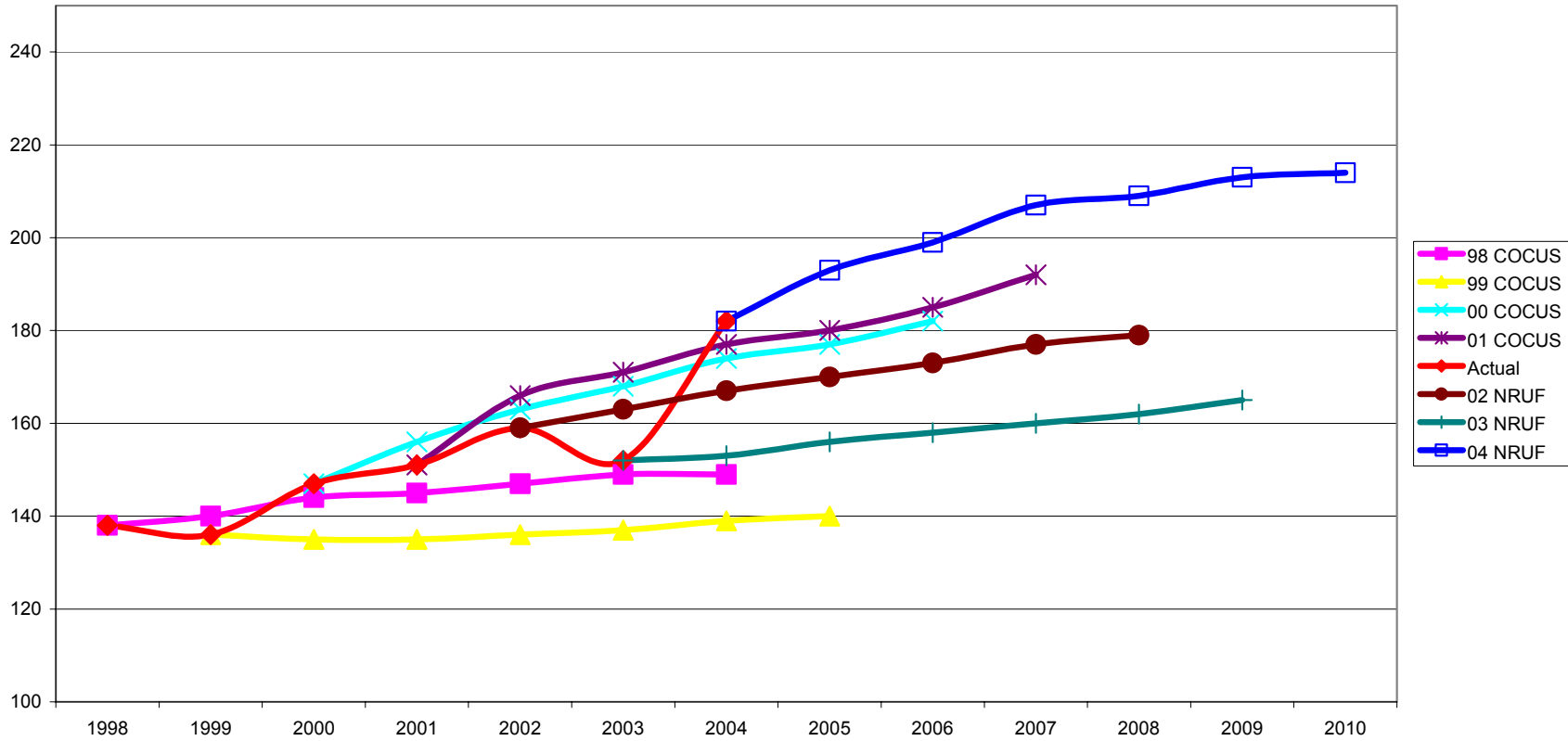
Historical G-NRUF Graphs for Canadian NPAs

NPA 780 Alberta



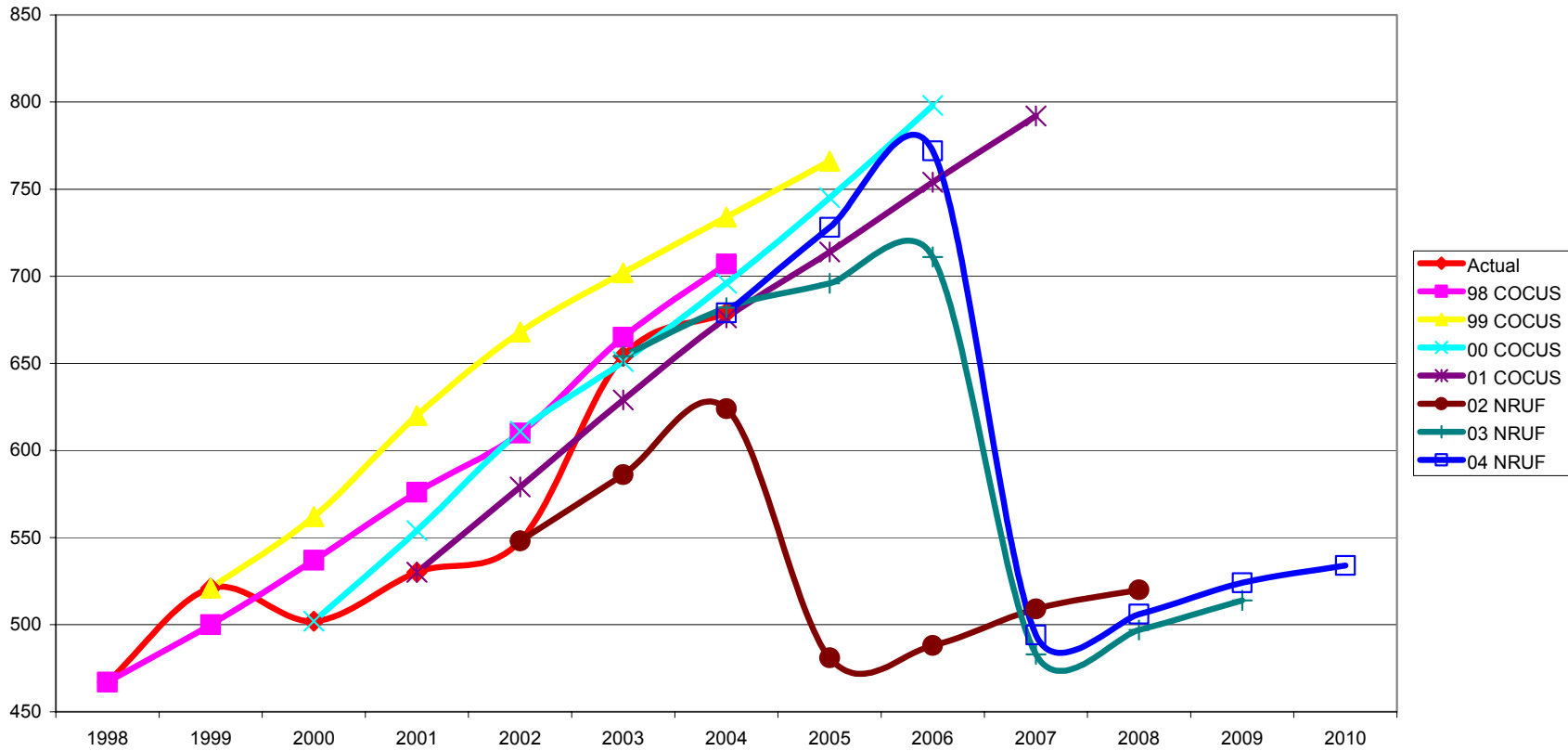
Historical G-NRUF Graphs for Canadian NPAs

NPA 807 Ontario



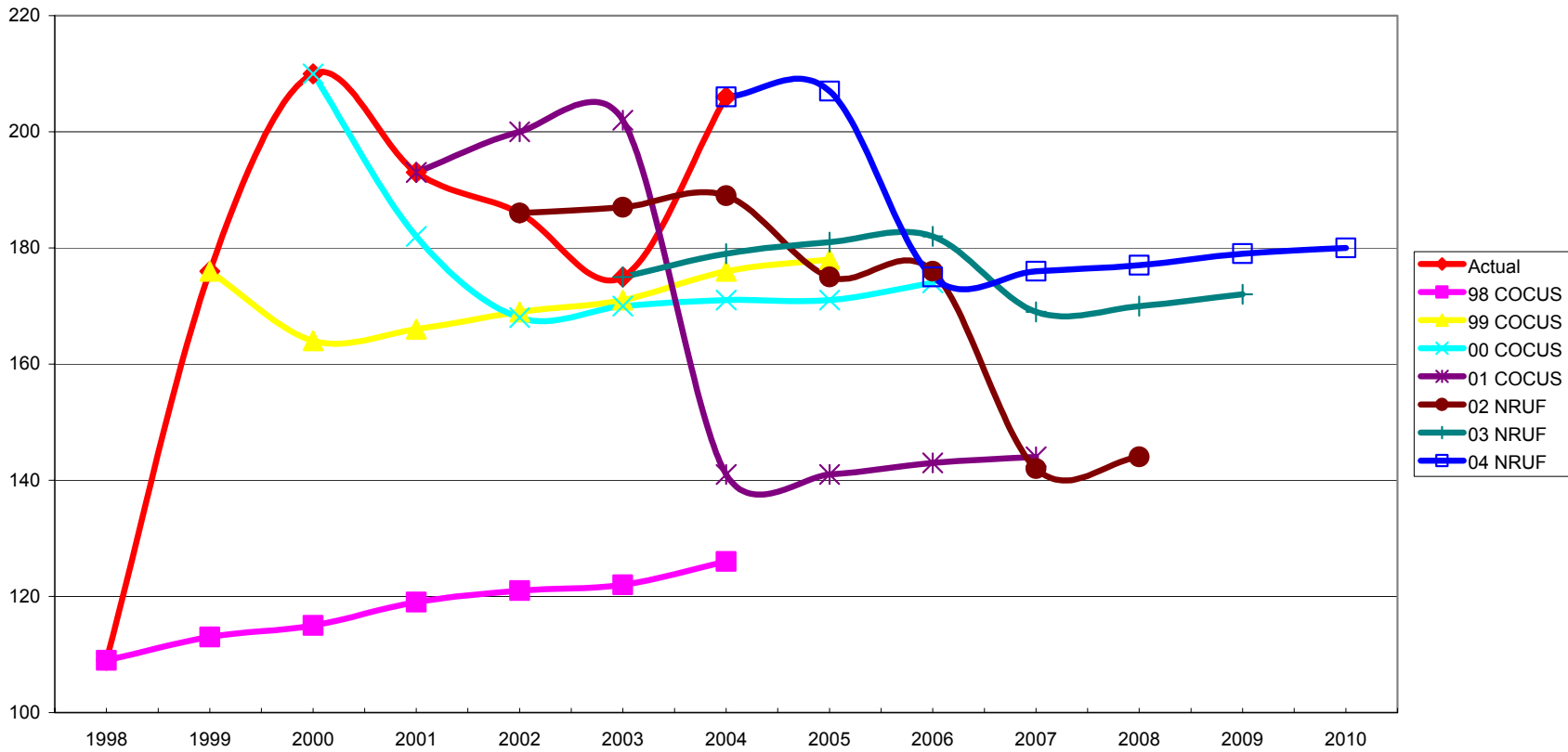
Historical G-NRUF Graphs for Canadian NPAs

NPA 819 Quebec (includes all protected codes)



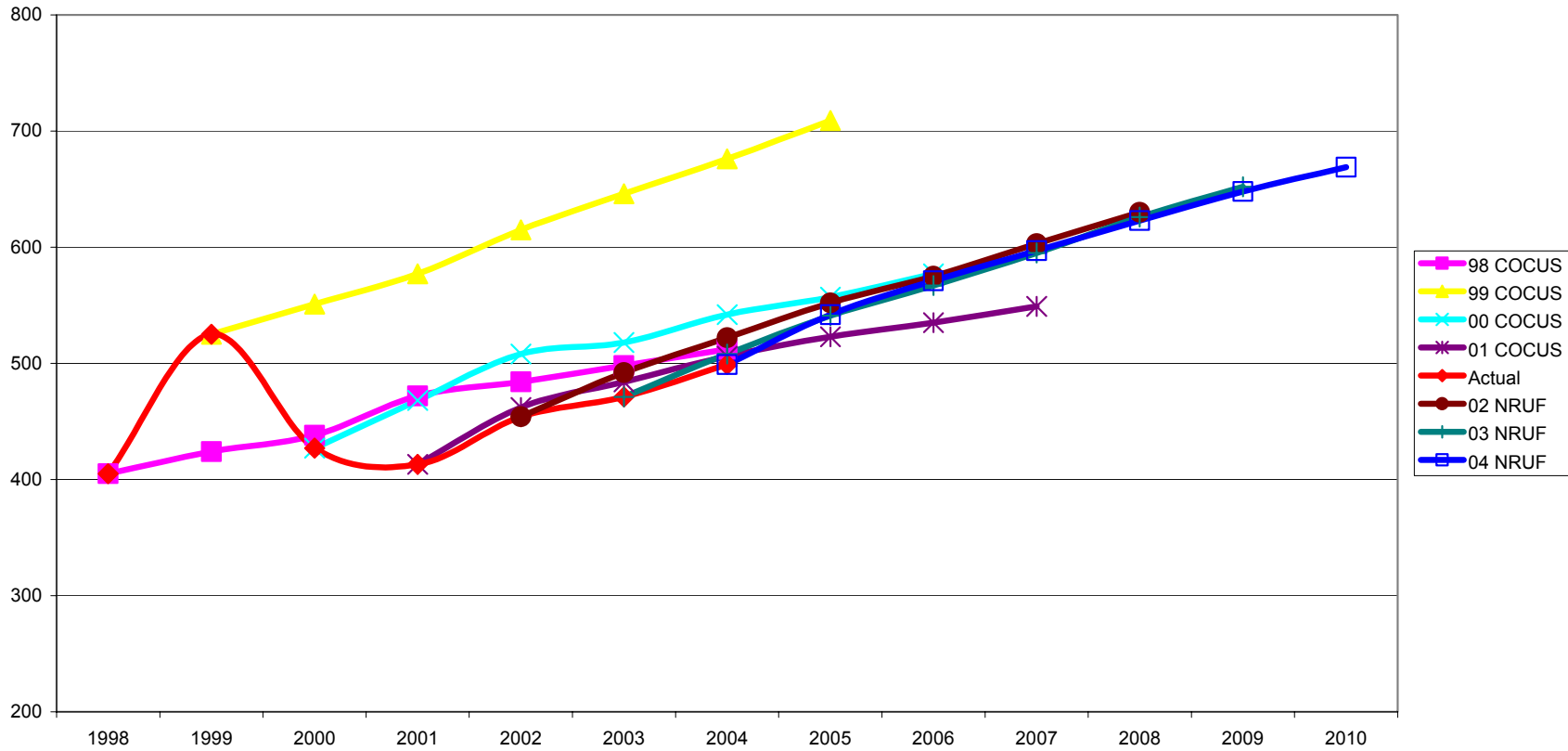
Historical G-NRUF Graphs for Canadian NPAs

NPA 867 NWT/Yukon



Historical G-NRUF Graphs for Canadian NPAs

NPA 902 Nova Scotia/PEI



CSCN

Canadian Steering Committee on Numbering

Douglas Birdwise
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25 November 2003

TRANSMITTED ELECTRONICALLY

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

Subject: CSCN Direction to CNA re: 2004 G-NRUF Methodology and Assumptions

On 25 November 2003, the Canadian Steering Committee on Numbering (CSCN) discussed and agreed to the direction to the CNA with respect to the 2004 G-NRUF Methodology and Assumptions.

The attached document contains the direction titled "CSCN Direction to CNA re: 2004 G-NRUF Methodology and Assumptions 25 November 2003".

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.: Brenda Stevens, CRTC
CSCN

Attachment

CSCN Direction to CNA re: 2004 G-NRUF Methodology and Assumptions
25 November 2003

The CSCN submits the following methodology and assumptions to the CNA for the 2004 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, 2004, 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 2004 G-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):

$$[(\text{Forecasted Quantity of CO Codes in year six}) - (\text{Actual Quantity in January 1 of Current Year})]/6$$

5. Stranded Codes
 - a) The CNA advised the CSCN that there are 37 Stranded Codes with ported telephone numbers in 12 different NPAs, with a breakdown as follows:

NPA	Quantity of Stranded CO Codes with Ported TNs
403	1
416	2
418	1

NPA	Quantity of Stranded CO Codes with Ported TNs
450	3
514	2
519	4
604	2
613	4
705	1
780	1
819	1
905	15

- b) For the purposes of the 2004 G-NRUF, the CNA shall assume that all of the CO Codes that are stranded at the beginning of 2004 will be transferred to other TSPs prior to January 1, 2005.
6. 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 2004 G-NRUF Report to the CSCN after the aggregate results are finalized.
7. 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, 2024. When submitting the 2004 G-NRUF results to NANPA, the CNA shall include the results for NPAs 819 and 613 without Protected CO Codes.
8. 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 December 12, 2002. The CNA shall generally not include current neighbouring U.S. NPAs as "Unassignable CO Codes" in Canadian NPAs; however, the seven CO Codes shown in the table below shall be identified as "Unassignable CO Codes".

NPA	NXX	Existing Status (2003-07-04)	Proposed Status	Notes
250	907	Available	Available – Protected: Stewart	Protection required because Stewart exchange includes Hyder AK
306	701	Available	Available – Protected: North Portal	7D local dialling to Portal ND
403	406	Available	Available – Protected: Coutts	7D local dialling to Sweet Grass MT

NPA	NXX	Existing Status (2003-07-04)	Proposed Status	Notes
506	207	Available	<i>Option 1:</i> Available – Protected: Campobello, St Stephen, Clair, Edmunston, St Léonard, McAdam, Blacks Harbour, Deer Island, Grand Manan, St Andrews, St George, St Stephen, Baker Brook, Edmunston, St Basile, Harvey Station, Keswick, Kedgwick, St-Quentin, Ste-Anne-de-Madawaska <i>Option 2:</i> Not available existing US NPA	Due to number of exchanges affected by 7D local dialling to ME, ILEC may prefer option 2, i.e. unassignable,
613	518	Available	Available - Protected St-Régis QC, Cornwall ON	7D local dialling St-Régis-Fort Covington NY
807	218	Available	Available – Protected: Barwick, Devlin, Emo, Fort Frances, Morson, Rainy River, Stratton,	7D local dialling Rainy River to Baudette MN
819	207	Available	Available – Protected: Woburn, Lac-Mégantic	7D local dialling Woburn to Coburn Gore, ME
819	802	Available	Available - Protected: Rock Island, Ayer's Cliff, North Hatley, Sherbrooke	7D local dialling Rock Island to Derby Line, VT

9. 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.
10. The CNA shall not include any demand for CO Codes for proposed CLECs that did not submit NRUF forecasts.
11. When extending the forecast from 7 to 20 years, the CNA should use the average annual growth rate for years one to six, 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).
12. 10-Digit dialling 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 G-NRUF.
13. The CNA should follow the directions contained in section 3.7 of the Canadian Central Office Code (NXX) Assignment Guidelines with respect to NXXs available for assignment when projecting NPA Exhaust. The CNA should retain all unassigned CO Codes equivalent to the 37 Projected Future Canadian Geographic NPAs in "Not Available" status until such time as the Commission approves the CSCN's recommended changes to section 3.7 of the Guidelines.
14. With respect to NPAs that are due to exhaust approximately in the 2024 timeframe, the CNA should exercise its best judgement in finalizing the forecast for those NPAs.