

**Report for January 2011 G-NRUF – Canadian NPAs
to the
Canadian Steering Committee on Numbering (CSCN)**

Published: July 26, 2011

Issued by:
Canadian Numbering Administrator
SAIC Canada

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Ottawa, ON

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 29 September 2010 in Telecom Decision CRTC 2010-724.

Included as attachments to this report are:

- 2011 G-NRUF Aggregate Results
- Quantity of CNA CO Codes as of 1 January 2011
- Historical G-NRUF Graphs for Canadian NPAs
- CSCN Letter dated 26 October 2010 (see section 7)

2. High Level Summary

The results from the 2011 G-NRUF are difficult to compare with the 2010 G-NRUF results due to four major factors:

- 1) The appearance of some new Telecommunications Service Providers (TSPs) in various Canadian NPAs that had not previously submitted G-NRUF data to the CNA.
- 2) Various TSPs have submitted to the CNA a set of data that is different from the 2010 data. The CNA has verified the input from various TSPs and the variance from previous years' input can be rationalized.
- 3) Telecom Decision CRTC 2004-46, "Trunking arrangements for the interchange of traffic and the point of interconnection between local exchange carriers", which allows for the consolidation of Exchange Areas to form larger Local Interconnection Regions (LIRs).
- 4) Telecom Decision CRTC 2006-28, "Regulatory issues related to the implementation of wireless number portability – Follow-up to Public Notice 2006-3", which requires that Wireless Service Providers (WSPs) obtain CO Codes from which LRNs can be assigned.

The impact of each of the above factors varies from NPA to NPA.

Specific significant changes are listed below:

- NPA 204 Projected Exhaust Date is now forecast for September 2012, which moves the Projected Exhaust Date in by two (2) months from the October 2010 J-NRUF result of

November 2012, primarily as a result of forecasts submitted by new service providers and increased forecast demand in the area.

- NPAs 250/604/778 Projected Exhaust Date is now forecast for November 2014, which moves the Projected Exhaust Date in by one (1) year and nine (9) months from the July 2010 R-NRUF result of August 2016, primarily as a result of increased forecast demand in the area.
- NPA 306 Projected Exhaust Date is now forecast for May 2013, which moves the Projected Exhaust Date in by four (4) years and eleven (11) months from the January 2010 G-NRUF result of April 2018, primarily as a result of increased forecast demand in the area. NPA 306 is in a Jeopardy Condition.
- NPAs 416/647 Projected Exhaust Date is now forecast for May 2015, which moves the Projected Exhaust Date in by five (5) months from the July 2010 R-NRUF result of October 2015, primarily as a result of a change in demand for the area.
- NPA 819 Projected Exhaust Date is now forecast for September 2012, which moves the Projected Exhaust Date in by one (1) year and one (1) month from the July 2010 R-NRUF result of October 2013, primarily as a result of a change in demand for the area. NPA 819 is in a Jeopardy Condition.
- NPA 902 Projected Exhaust Date is now forecast for May 2017, which moves the Projected Exhaust Date in by nine (9) months from the January 2010 G-NRUF result of February 2018, primarily as a result of a change in demand for the area.

NPAs in or entering Relief Planning

NPA	<i>Most recent 2010 (G, R, J) -NRUF View</i>	2011 (G, R, J) -NRUF View	Remarks
204	November 2012	September 2012	In Relief Planning / RPC exists. In a Jeopardy Condition.
250 / 604 / 778	August 2016	November 2014	In Relief Planning / RPC exists
289 / 905	March 2015	April 2015	Overlay NPA 365 on March 25, 2013 iaw Telecom Decision CRTC 2010-213
306	April 2018	May 2013	In Relief Planning / RPC exists. In a Jeopardy Condition.
416 / 647	October 2015	May 2015	In Relief Planning / RPC exists

NPA	Most recent 2010 (G, R, J) -NRUF View	2011 (G, R, J) -NRUF View	Remarks
819	October 2013	September 2012	Overlay NPA 873 on June 1, 2013 iaw Telecom Decision CRTC 2010-94-1. In a Jeopardy Condition.
902	February 2018	May 2017	

3. Current and Past G-NRUF Projected Exhaust Dates

NPA	LOCATION	2007	2008	2009	2010	2011
204	Manitoba	Nov. 2016	Dec. 2021	Feb. 2011	May 2013	Sep. 2012
226 / 519	S. Ontario	Nov. 2021	Apr. 2019	Apr. 2019	Jun. 2021	Sep. 2022
249 / 705	N. E. Ontario	Dec. 2013	Sep. 2014	Oct. 2012	Oct. 2011 Dec. 2027	Dec. 2027
250 / 604 / 778	BC		Nov. 2018	Dec. 2019	Jul. 2016 Jul. 2025	Nov. 2014 Aug. 2022 Feb. 2030
289 / 905	Toronto Fringe	Mar. 2017	Aug. 2014	May 2015 Sep. 2028	Apr. 2014 Sep. 2024	Apr. 2015 Oct. 2027
306	Saskatchewan	Dec. 2020	Oct. 2023	Oct. 2022	Apr. 2018	May 2013
343 / 613	Ottawa area	Dec. 2013	Aug. 2011	Jul. 2011	Jan. 2011 Feb. 2029	Beyond 2033
403 / 587 / 780	Alberta		Nov. 2024	Aug. 2022	Jan. 2020	Aug. 2020 Dec. 2032
416 / 647	Toronto	Jun. 2018	Jan. 2017	Oct. 2021	Jul. 2015 Jul. 2024	May 2015 Dec. 2023 Jul. 2033
418 / 581	N. E. Quebec	Oct. 2008	Nov. 2008	Beyond 2031	Beyond 2032	Mar. 2033
438 / 514	Montreal	Beyond 2030	Beyond 2030	Beyond 2031	Sep. 2029	May 2023
450 / 579	Montreal Fringe	Sep. 2013	Oct. 2014	Nov. 2010	Dec. 2010 Beyond 2032	Beyond 2033
506	New Brunswick	Nov. 2021	Jan. 2027	Beyond 2031	Beyond 2032	Beyond 2033
709	Nfld & Labrador	Feb. 2028	Feb. 2028	Sep. 2030	Beyond 2032	Beyond 2033
807	N.W. Ontario	Beyond 2030	Beyond 2030	Beyond 2031	Beyond 2032	Beyond 2033
819 / 873	N. E. Quebec	Feb. 2015	Aug. 2017	Feb. 2015	Mar. 2014	Sep. 2012
867	Yukon, NWT, Nunavut	Beyond 2030	Beyond 2030	Beyond 2031	Beyond 2032	Beyond 2033
902	Nova Scotia & PEI	Jul. 2014	Nov. 2018	Apr. 2019	Feb. 2018	May 2017

4. Schedule of Future NRUF Activities in the Current Year

Due Date	NRUF Type	NRUF Format	NPA(s)
July 29	J-NRUF	As determined by RPC	204, 306, & 819
Oct. 31	J-NRUF	As determined by RPC	204, 306, & 819
Aug. 8	R-NRUF	Format 2	250 / 604 / 778
Aug. 8	R-NRUF	Format 2	289 / 905
Aug. 8	R-NRUF	Format 2	416 / 647
Aug. 8	R-NRUF	Format 2	902

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

- a) TSPs confuse the differences between a G-NRUF, an R-NRUF, a J-NRUF and the Reserved and Held Report requirements.
- b) Some companies had problems¹ with completion of the C-NRUF forms, submitted the inappropriate form, or missed submission of a form.
- c) Numerous companies failed to submit explanations for significant changes in their forecasts from previous submissions.

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 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).
- c) 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. 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 26 October 2010.

¹ Not including companies that did not follow submission instructions.

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 2011 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 26 October 2010.

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.

The results from the 2011 G-NRUF are difficult to compare with the 2011 G-, R- and J -NRUF results as most TSPs have submitted a set of data to the CNA that is different from the 2010 data. In addition, there are several new Carriers entering the Canadian market.

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 2011 the CNA is concerned that there is still potential for volatility in demand for numbering resources due in part to several changes in the regulatory regime over the past few years. Additionally, the appearance of several new Wireless Service Providers and Local Exchange Carriers may have an unforeseen impact on demand that is difficult to predict. Due to these uncertainties, there is some latitude for determining what is reasonable and realistic.

It is noteworthy that forecasts have generally showed an increase in demand even though more stringent practices were adopted by the CNA with respect to requiring current and potential CO Code Holders to justify the variances in their forecasts in accordance with section 4, item 7 of the Guideline.

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.

January 2011 G–NRUF Aggregate Results

As of January 1																					
NPA / Years	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
204	690	777	867	939	962	985	994	1034	1074	1114	1154	1194	1234	1274	1314	1354	1394	1434	1474	1514	1554
226-519	1078	1183	1231	1268	1312	1345	1378	1417	1456	1495	1534	1573	1639	1678	1717	1756	1795	1834	1873	1912	1951
249-705	743	802	848	874	977	1011	1043	1094	1145	1196	1247	1298	1349	1400	1451	1502	1553	1640	1691	1742	1793
250-604-778	1953	2090	2214	2302	2431	2549	2626	2720	2824	2928	3032	3136	3261	3365	3469	3573	3677	3781	3885	3989	4116
289-905	1297	1394	1470	1533	1584	1660	1720	1783	1846	1909	1972	2035	2098	2161	2224	2287	2350	2442	2505	2568	2631
306	731	772	790	840	858	872	888	907	926	945	964	983	1002	1021	1040	1059	1078	1097	1116	1135	1154
343-613	811	872	893	928	959	991	1021	1055	1089	1123	1157	1191	1225	1259	1293	1327	1361	1395	1429	1463	1497
403-587-780	1739	1859	1933	1995	2050	2106	2171	2234	2297	2360	2445	2508	2571	2634	2697	2760	2823	2886	2949	3012	3075
416-647	1201	1293	1392	1482	1569	1686	1768	1864	1954	2044	2134	2224	2314	2430	2520	2610	2700	2790	2880	2970	3060
418-581	920	985	1022	1050	1081	1106	1130	1159	1188	1217	1246	1275	1304	1333	1362	1391	1420	1449	1478	1507	1536
438-514	894	968	1034	1089	1144	1193	1244	1300	1356	1412	1468	1524	1580	1669	1725	1781	1837	1893	1949	2005	2061
450-579	817	870	903	926	944	960	978	1002	1026	1050	1074	1098	1122	1146	1170	1194	1218	1242	1266	1290	1314
506	425	453	466	485	502	514	527	542	557	572	587	602	617	632	647	662	677	692	707	722	737
709	484	511	527	543	555	566	575	588	601	614	627	640	653	666	679	692	705	718	731	744	757
807	211	217	223	230	235	240	243	249	255	261	267	273	279	285	291	297	303	309	315	321	327
819	716	771	810	873	900	917	927	953	977	1001	1025	1049	1073	1097	1121	1145	1169	1193	1217	1241	1265
867	156	159	162	166	171	173	175	179	183	187	191	195	199	203	207	211	215	219	223	227	231
902	620	683	707	729	754	773	792	832	854	876	898	920	942	964	986	1008	1030	1052	1074	1096	1118
NPA / Years	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031

January 2011 G-NRUF Aggregate Results

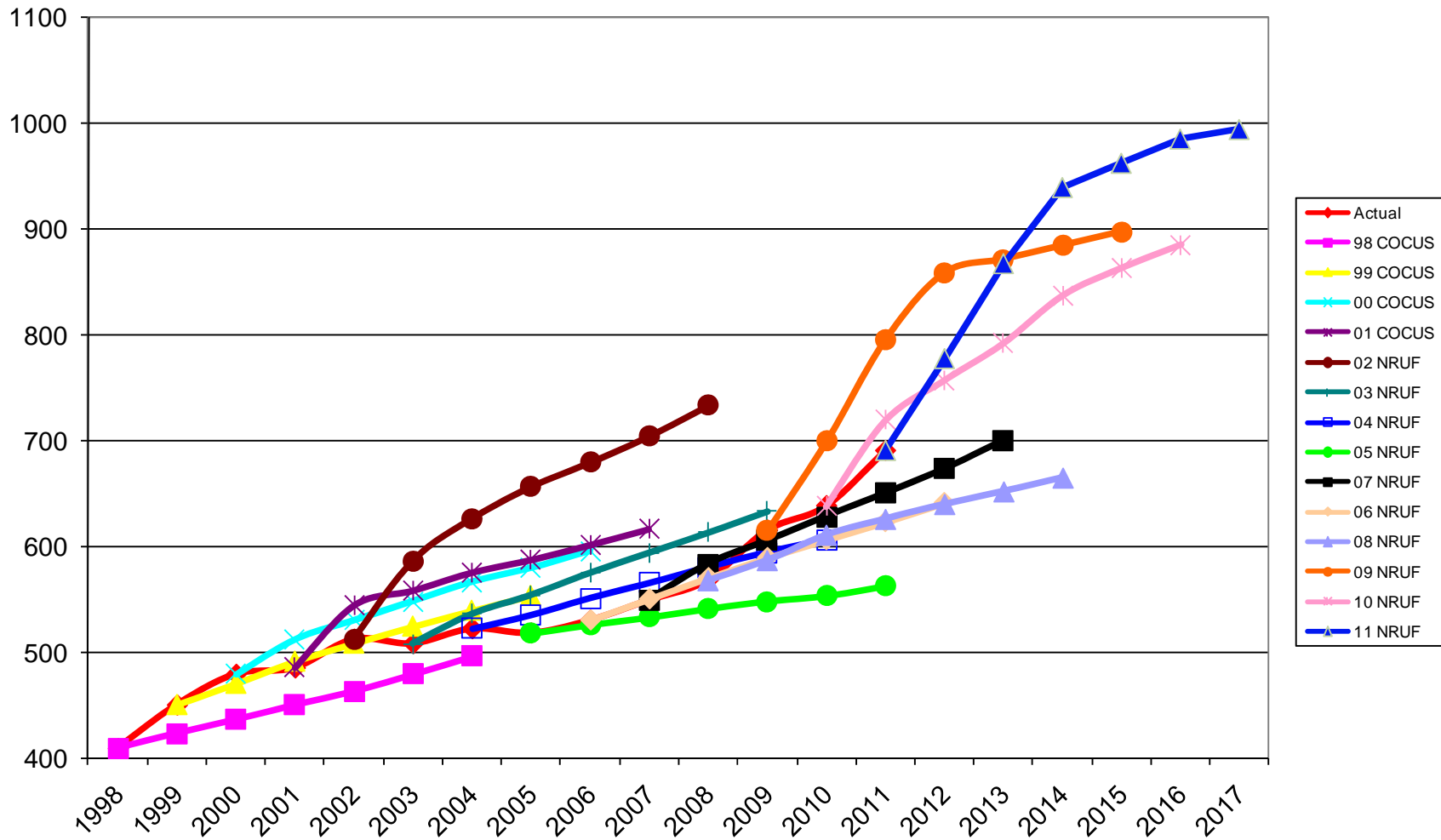
NPA / Years	2006			2007			2008			2009			2010			5 Year
	Actual	Forecast	Delta	Actual	Forecast	Delta	Actual	Forecast	Delta	Actual	Forecast	Delta	Actual	Forecast	Delta	Average
204	22	19	115.8%	22	34	64.7%	48	19	252.6%	24	84	28.6%	55	81	67.9%	105.9%
226-519	68	70	97.1%	95	77	123.4%	80	129	62.0%	57	142	40.1%	58	64	90.6%	82.7%
249-705	56	55	101.8%	53	112	47.3%	45	69	65.2%	63	97	64.9%	35	69	50.7%	66.0%
250	55	53	103.8%	96	85	112.9%	N/A									108.4%
250-604-778	N/A						119	113	105.3%	67	87	77.0%	140	115	121.7%	101.4%
289-905	92	79	116.5%	118	187	63.1%	84	161	52.2%	49	122	40.2%	66	108	61.1%	66.6%
306	39	41	95.1%	23	28	82.1%	34	27	125.9%	10	20	50.0%	97	19	510.5%	172.7%
343-613	34	37	91.9%	51	95	53.7%	55	95	57.9%	36	58	62.1%	56	77	72.7%	67.7%
403	64	64	100.0%	76	80	95.0%	N/A									97.5%
403-587-780	N/A						120	180	66.7%	76	128	59.4%	129	75	172.0%	99.3%
416-647	53	44	120.5%	36	61	59.0%	45	64	70.3%	45	42	107.1%	87	73	119.2%	95.2%
418-581	65	65	100.0%	94	97	96.9%	66	44	150.0%	38	39	97.4%	53	39	135.9%	116.0%
438-514	35	36	97.2%	29	54	53.7%	52	41	126.8%	42	34	123.5%	42	37	113.5%	103.0%
450-579	86	83	103.6%	17	44	38.6%	58	79	73.4%	19	66	28.8%	66	93	71.0%	63.1%
506	28	28	100.0%	54	37	145.9%	18	33	54.5%	20	42	47.6%	14	32	43.8%	78.4%
604	10	10	100.0%	59	15	393.3%	N/A									246.7%
709	10	10	100.0%	33	64	51.6%	14	25	56.0%	61	98	62.2%	48	67	71.6%	68.3%
778	36	34	105.9%	32	58	55.2%	N/A									80.5%
780	53	53	100.0%	94	114	82.5%	N/A									91.2%
807	2	2	100.0%	6	6	100.0%	9	6	150.0%	1	9	11.1%	17	16	106.3%	93.5%
819	92	89	103.4%	24	34	70.6%	53	63	84.1%	29	50	58.0%	35	36	97.2%	82.7%
867	6	-8	-75.0%	0	-30	0.0%	3	-28	-10.7%	0	1	0.0%	1	2	50.0%	-7.1%
902	25	24	104.2%	16	45	35.6%	19	28	67.9%	8	38	21.1%	23	37	62.2%	58.2%
			94.4%			86.9%			92.0%			60.8%			115.1%	

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

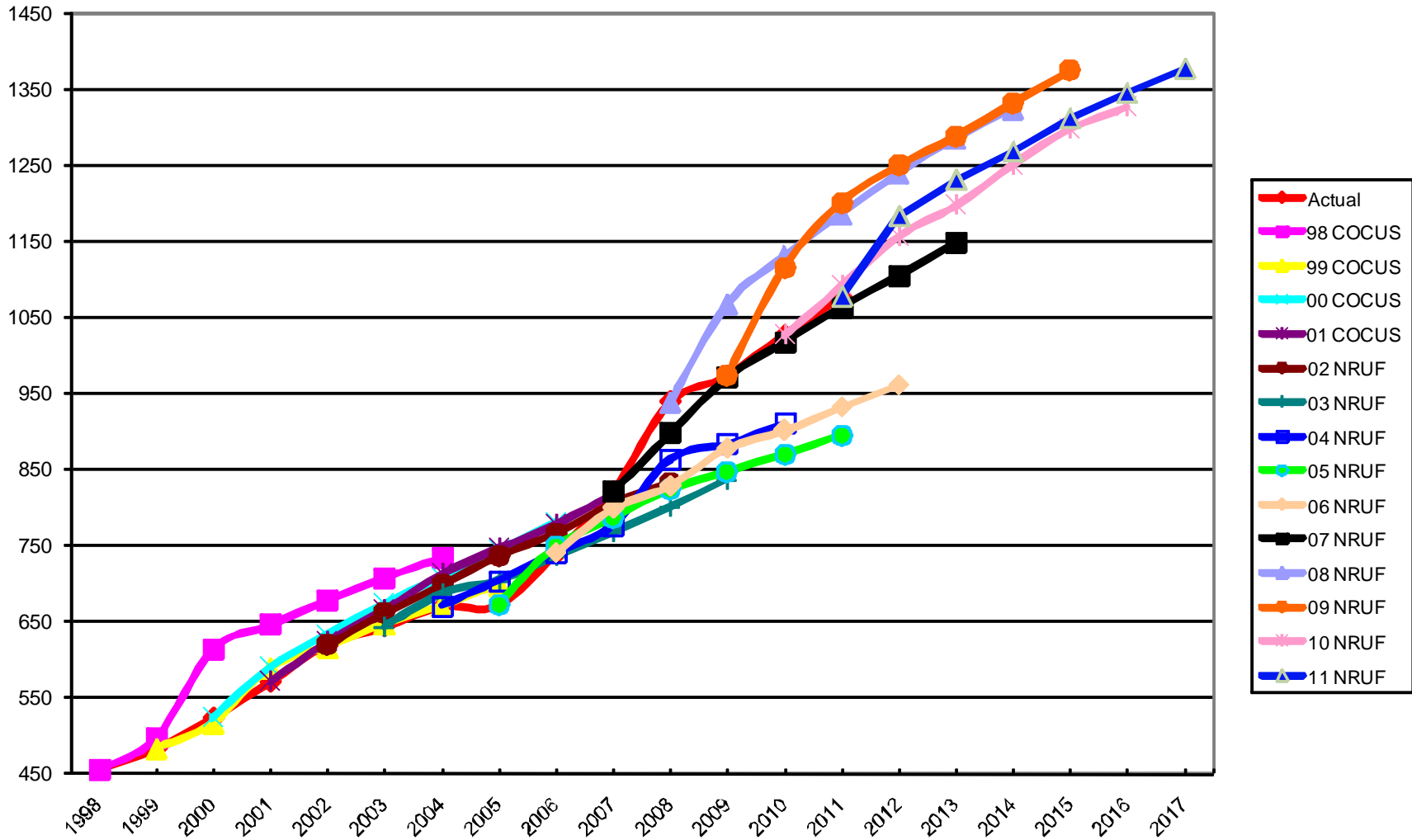
January 2011 G–NRUF Aggregate Results

CNA Codes - January 1, 2011																		
NPAs	204	226-519	249-705	250-604-778	289-905	306	343-613	403-587-780	416-647	418-581	438-514	450-579	506	709	807	819	867	902
New Entrants iaw NOCs/Decisions			10	10	15		15		10			9				10		
Initial Code iaw NOCs/Decisions			7	7	7		10		7	0		7				7		
Protected	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N11 Service Codes	8	16	16	24	16	8	16	24	16	16	16	16	8	8	8	8	8	8
Special Use Codes (555, 950 & 976)	3	5	5	9	6	3	5	9	5	5	5	6	3	3	2	2	3	3
Industry Plant Test Codes	1	4	4	6	4	2	4	6	4	4	4	4	2	2	2	2	2	2
Home NPAs NXX Codes	2	4	4	8	6	1	4	9	4	4	4	4	1	1	1	4	1	1
Neighbouring NPAs NXX Codes	2	4	18	0	16	3	16	2	2	6	4	8	3	3	4	9	5	1
Future NPAs NXX Codes	5	8	18	3	10	8	22	3	18	18	20	28	11	10	18	10	25	3
Limited Availability (USA 7D Problem)	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	0	0
911 Misdialed Codes (912, 914 & 915)	3	0	3	0	0	3	0	0	0	0	0	0	3	3	3	0	3	3
Special 7-Digit Dialling Codes (310, 610 & 810)	2	5	3	7	5	2	3	7	5	5	5	4	2	2	2	2	3	2
Relief NPA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Unforecasted Demand	3	5	0	0	0	3	0	7	0	3	6	0	3	2	2	0	2	3
Total	29	51	88	77	85	33	95	67	71	61	64	86	37	34	43	56	52	26

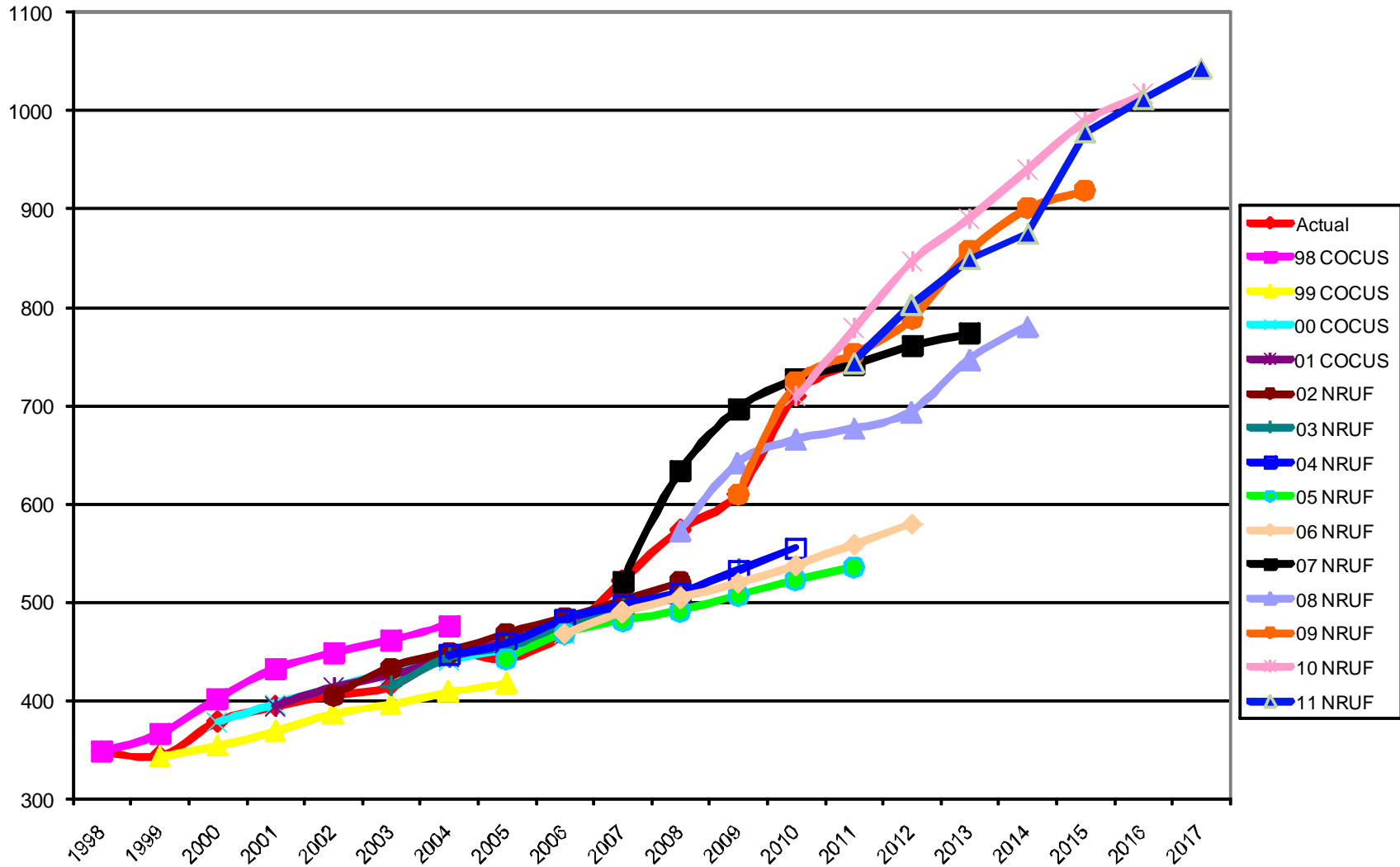
NPA 204 Manitoba



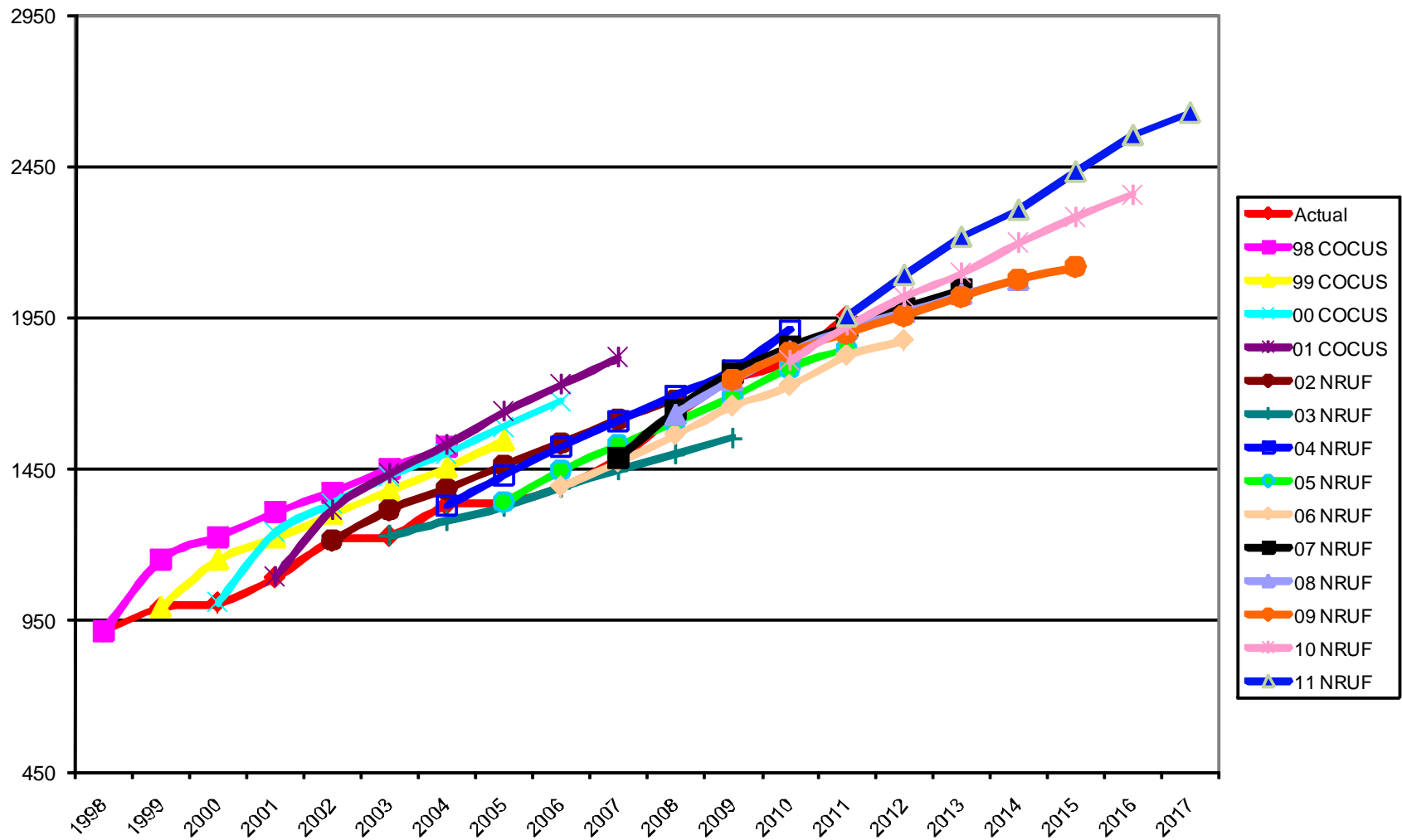
NPA226-519 Ontario



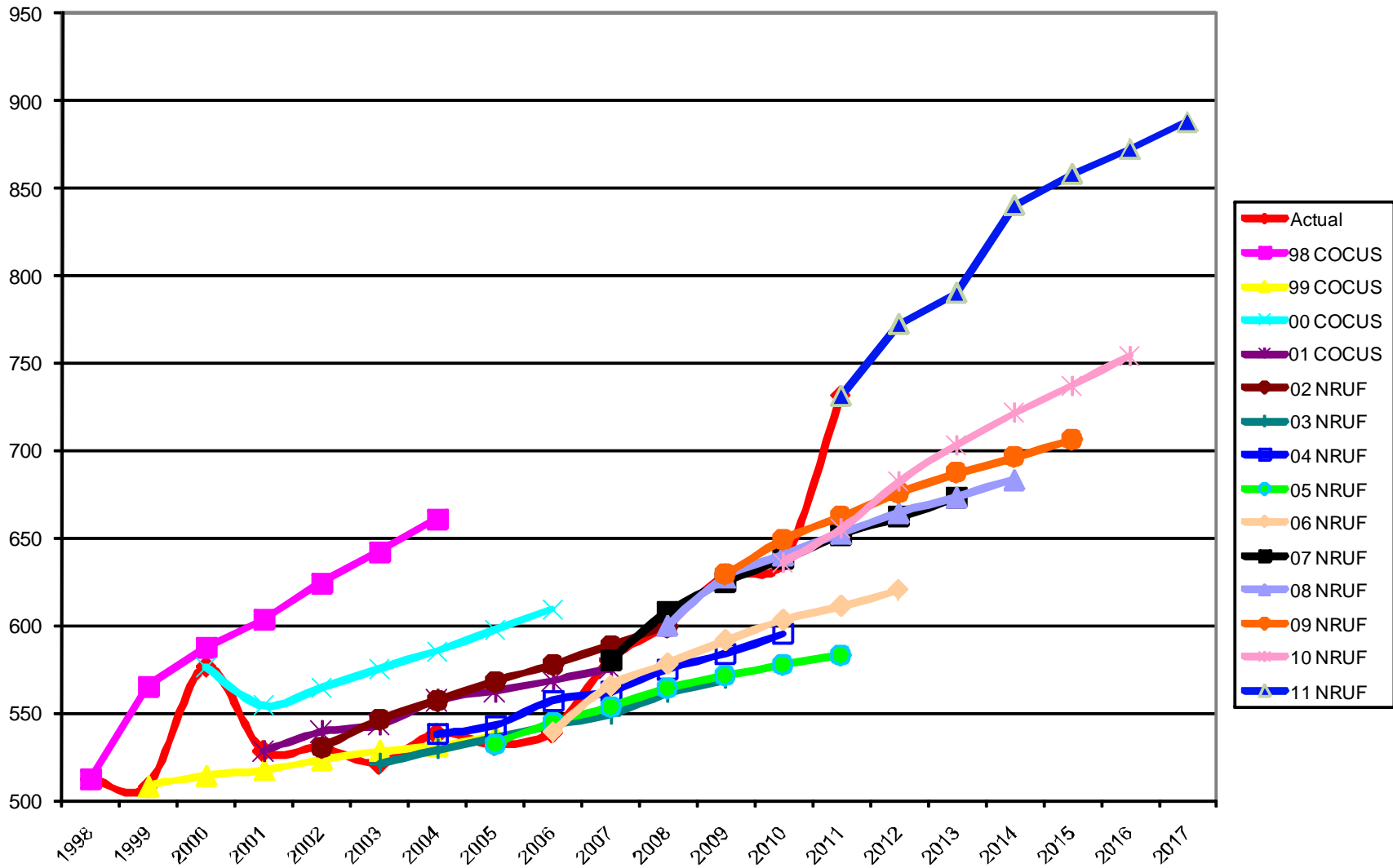
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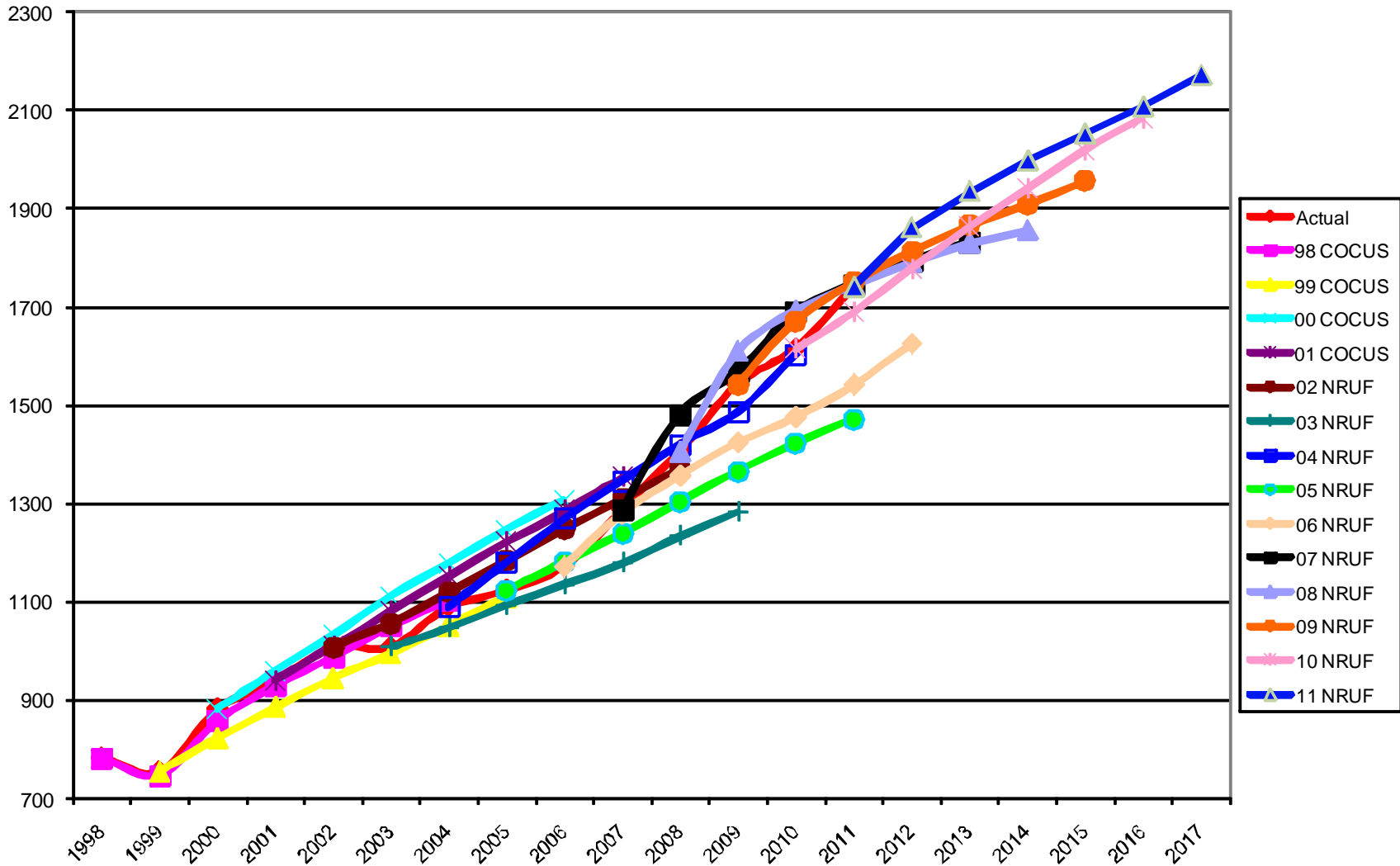
NPA250-604-778 British Columbia



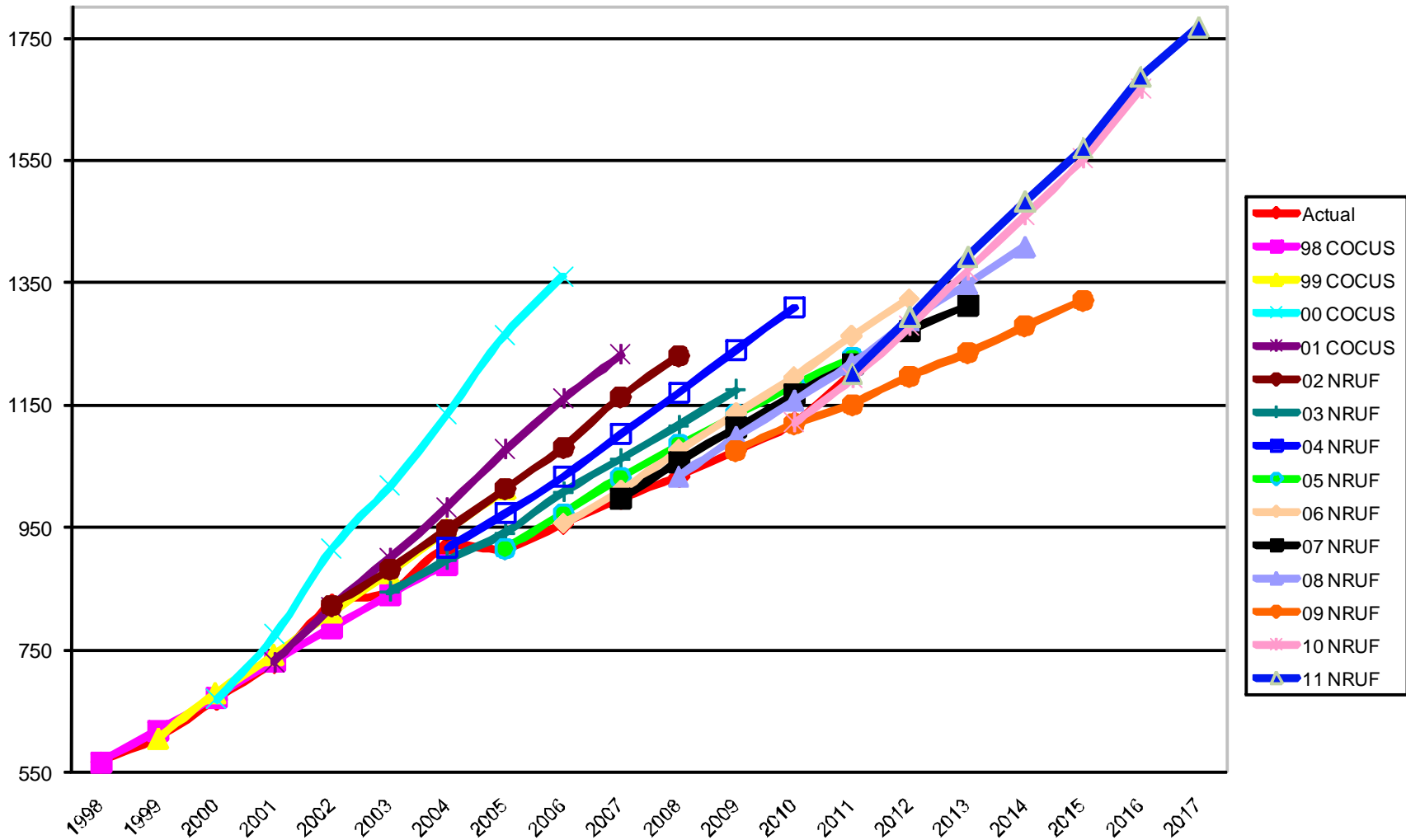
NPA 306 Saskatchewan



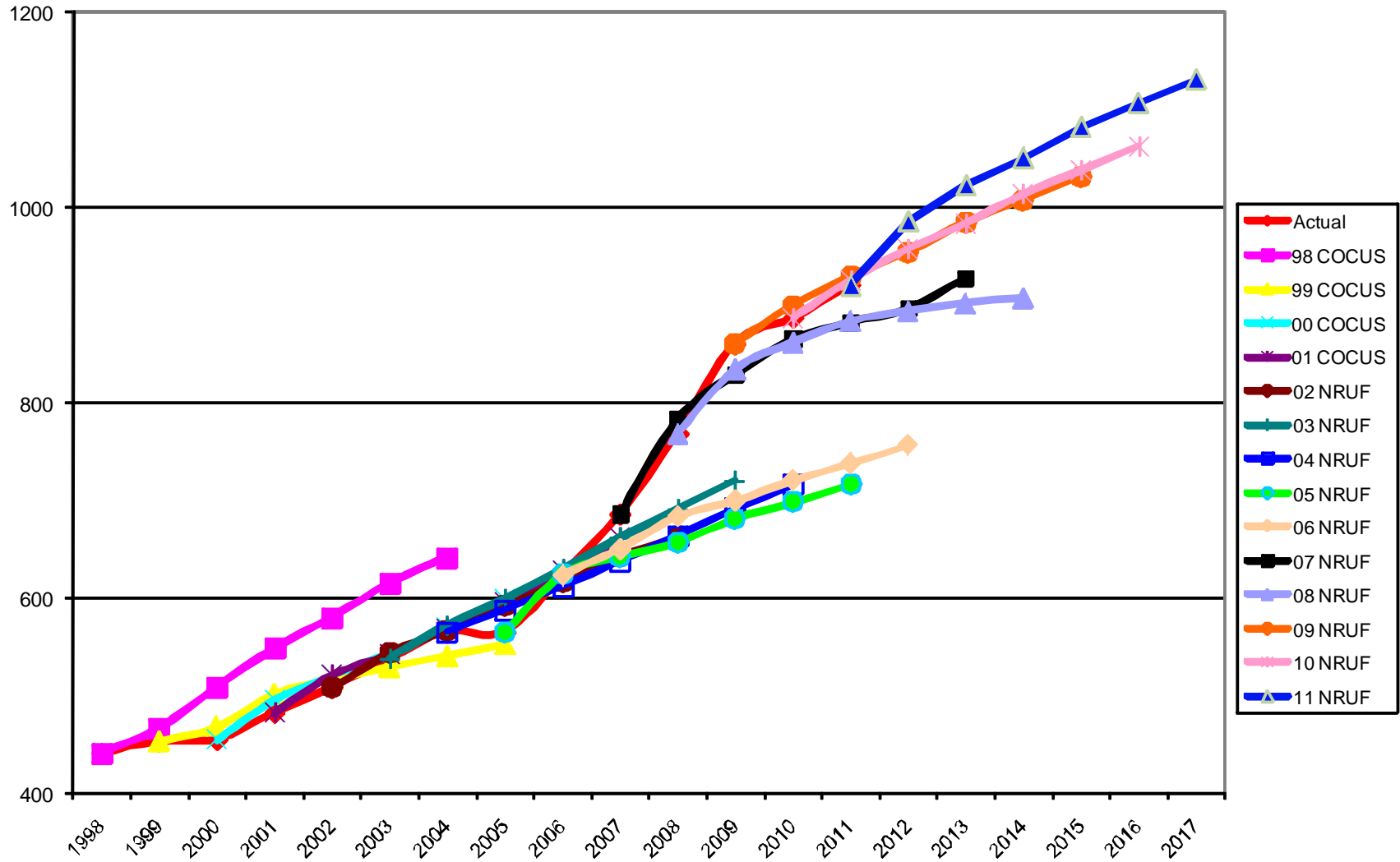
NPA403-587-780 Alberta



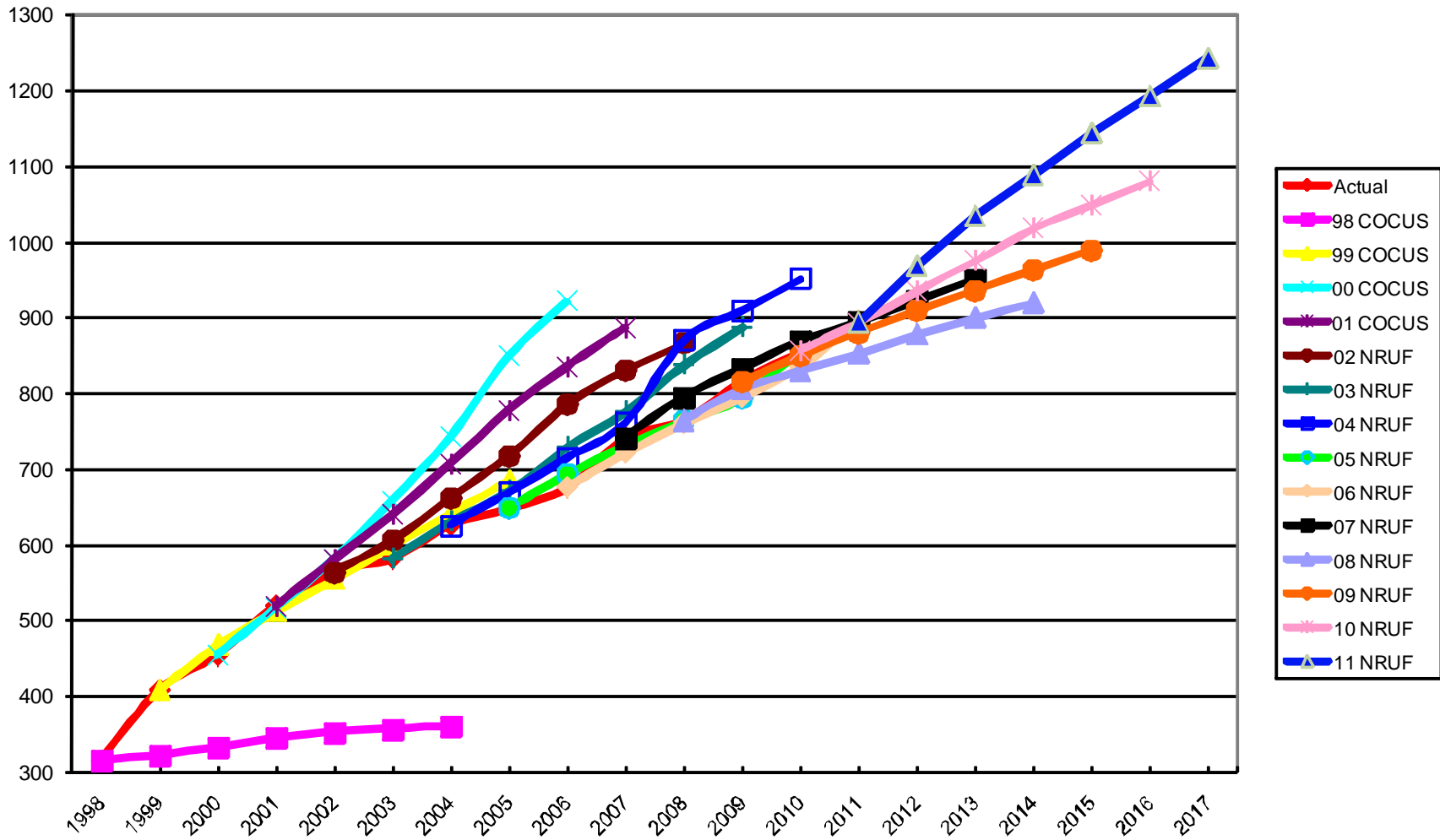
NPA416-647 Ontario



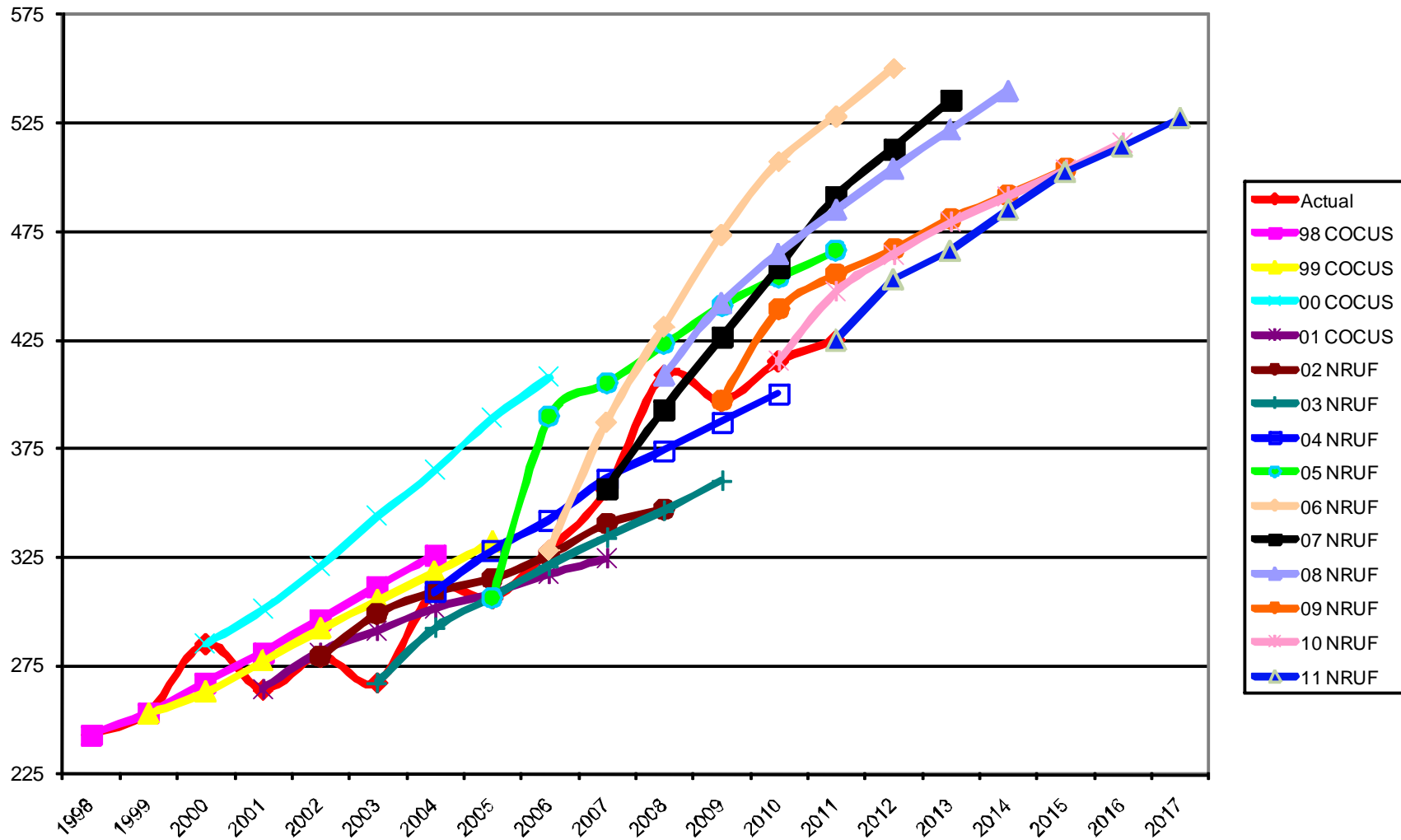
NPA418-581 Quebec



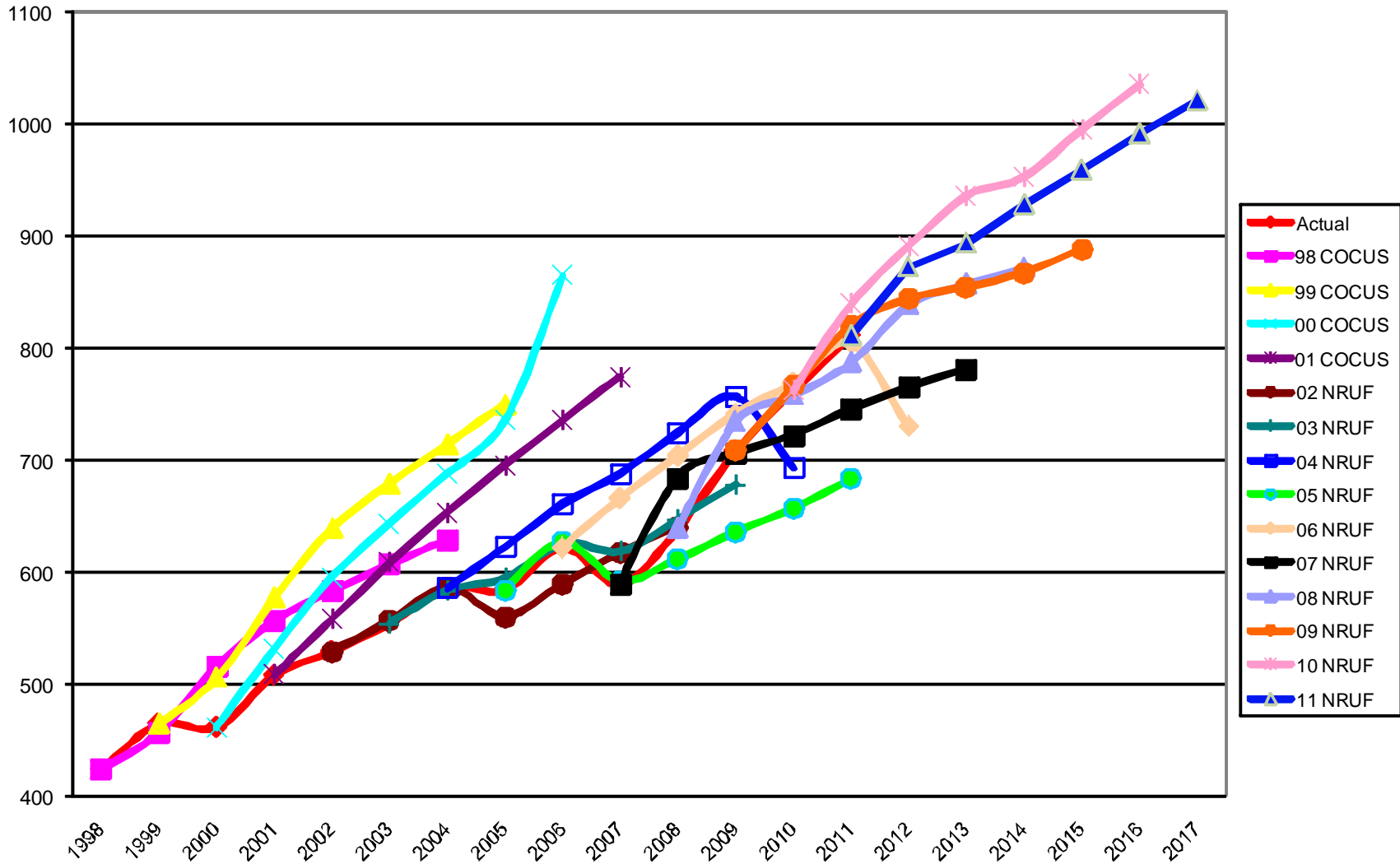
NPA438-514 Quebec



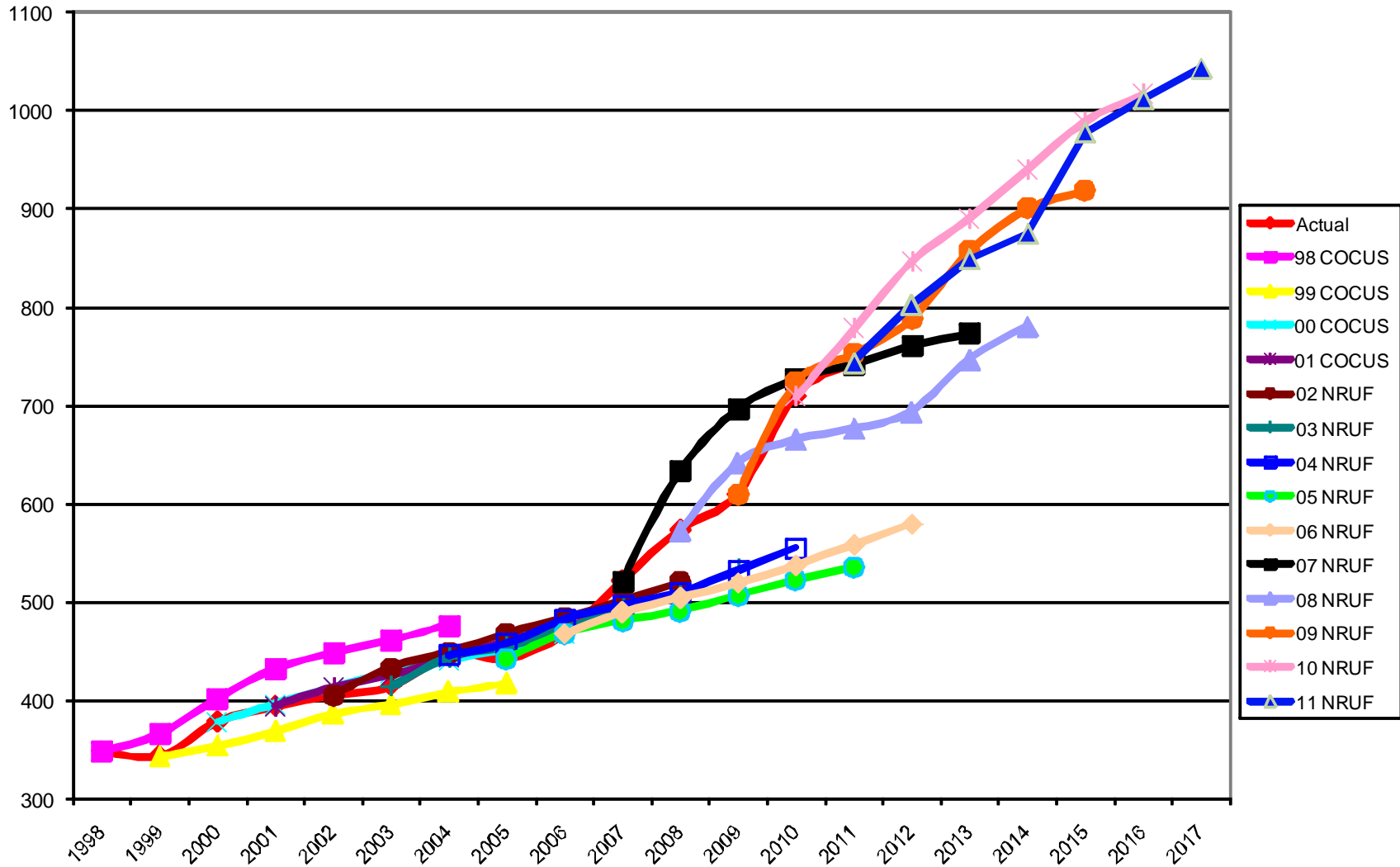
NPA506 New Brunswick



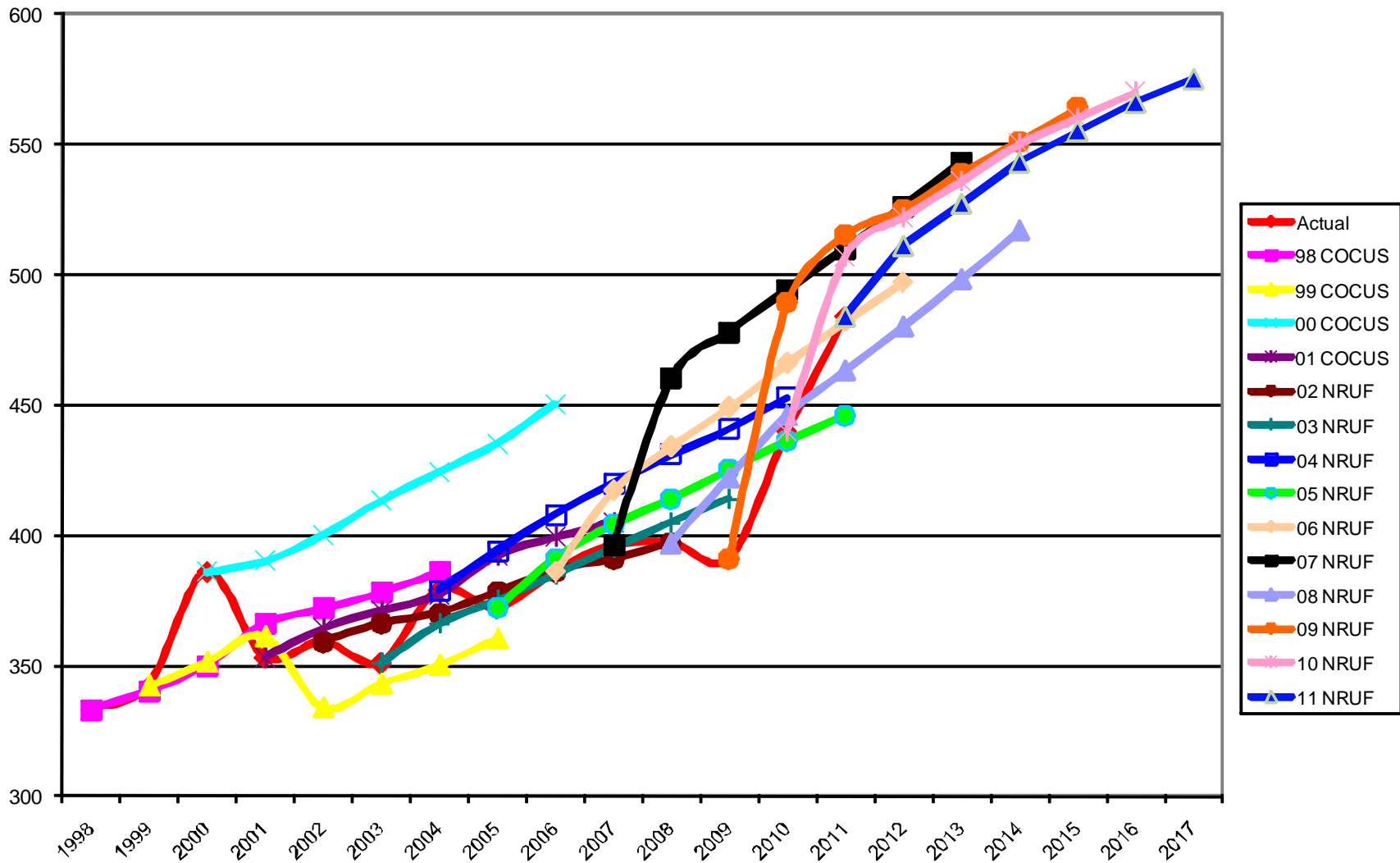
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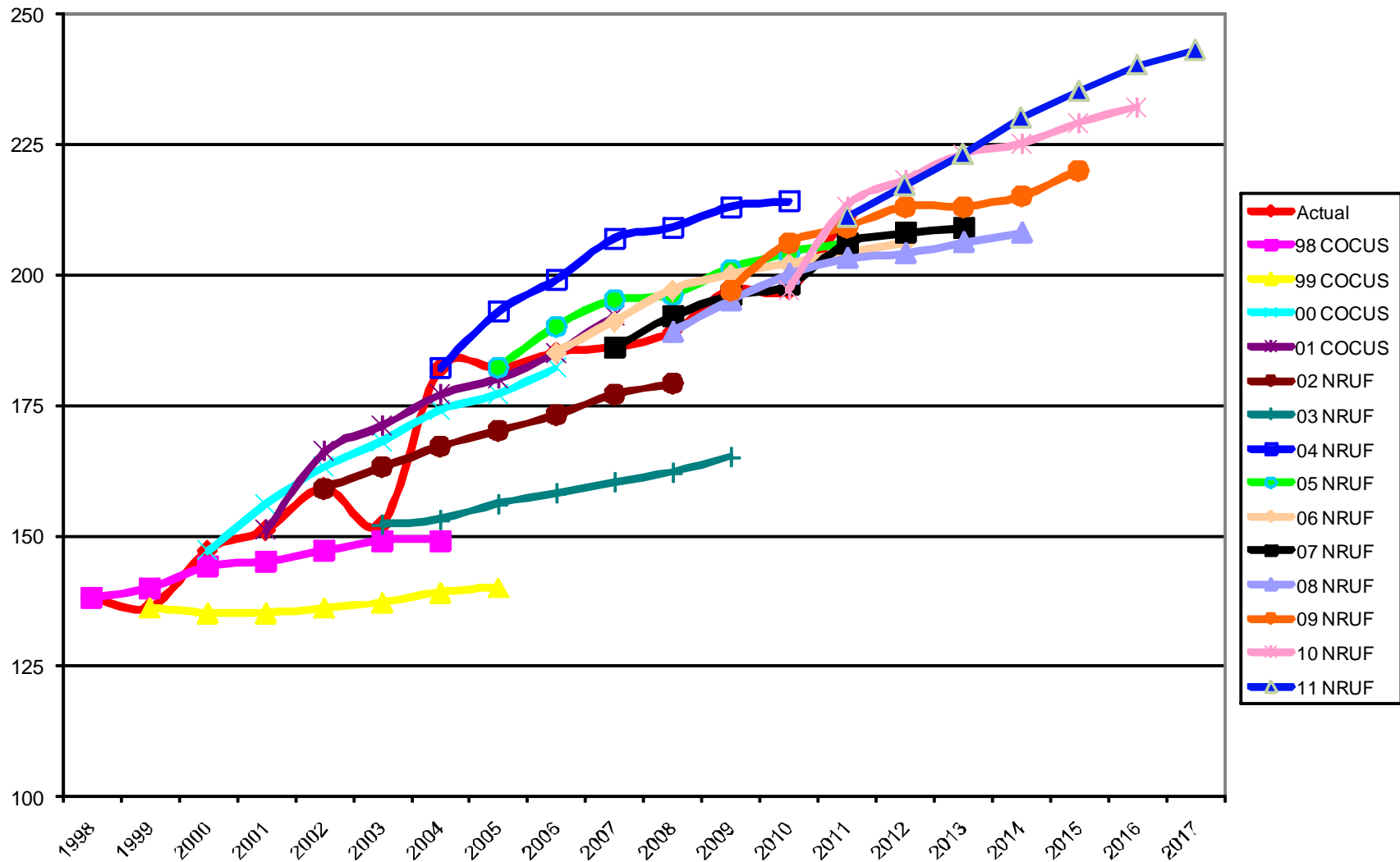
NPA249-705 Ontario



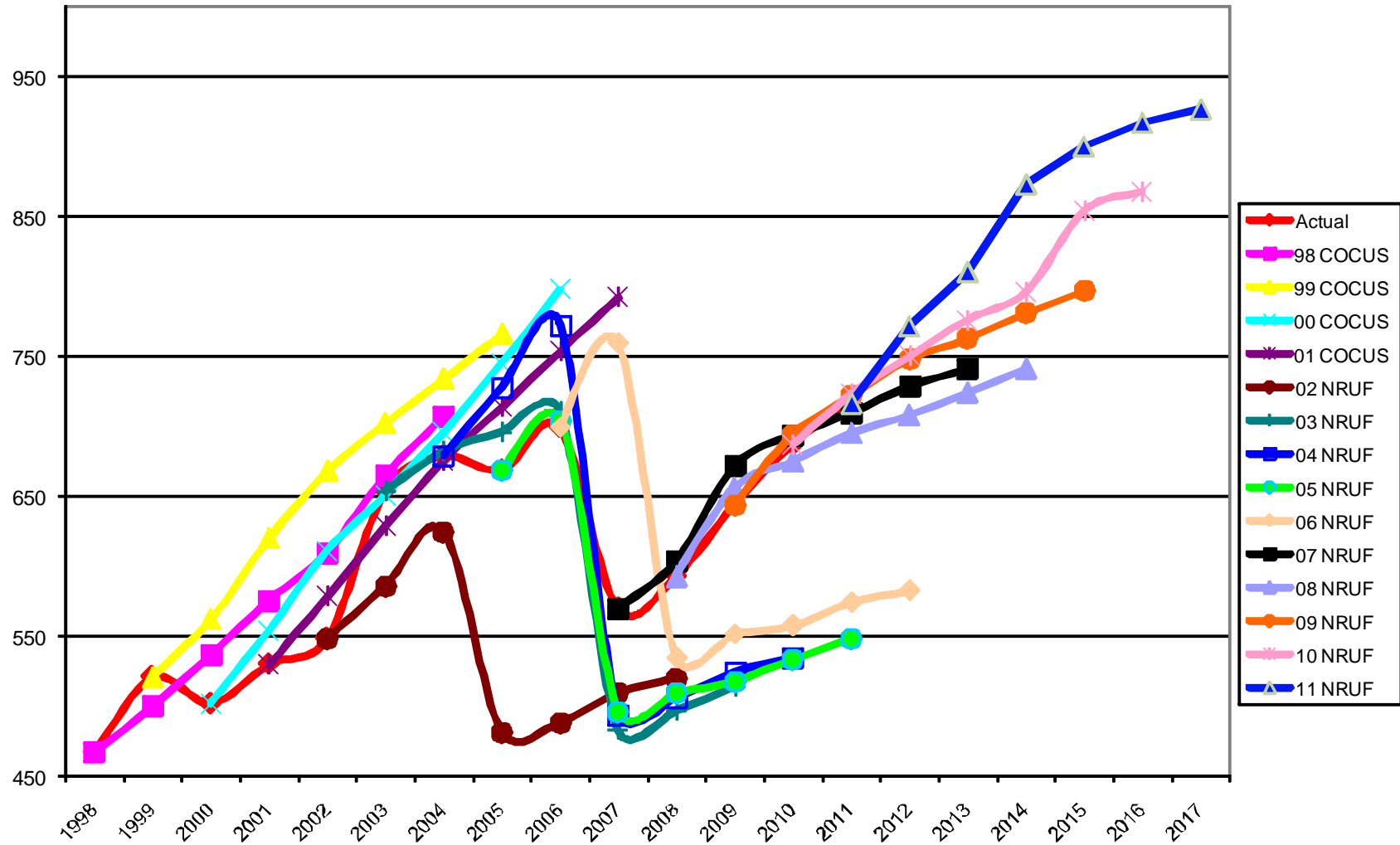
NPA 709 Newfoundland and Labrador



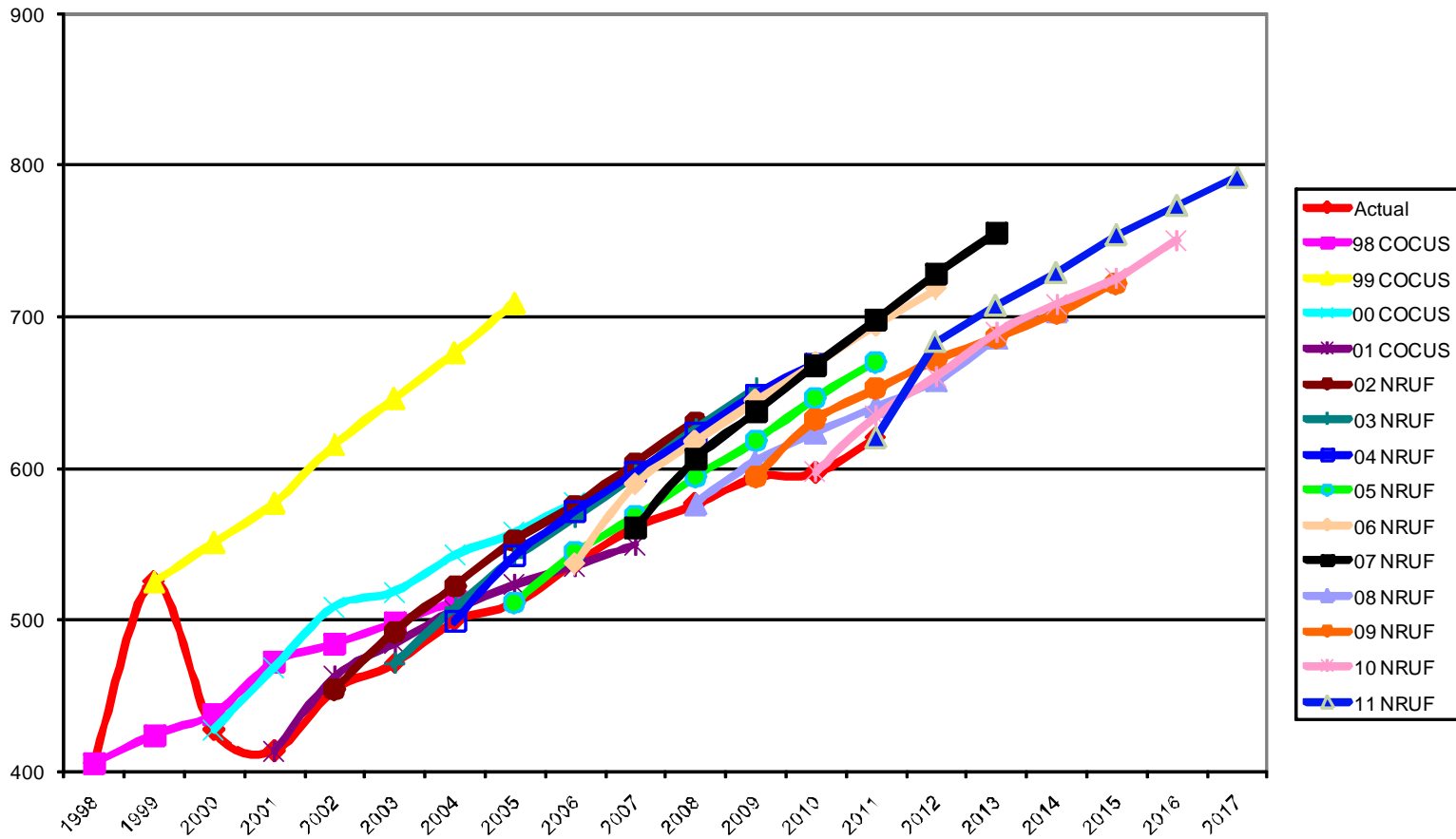
NPA807 Ontario



NPA819-873 Quebec



NPA902 Nova Scotia-Prince Edward Island



CSCN

Canadian Steering Committee on Numbering

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October 26, 2010

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 2011 Numbering Resource Utilization Forecast (2011 NRUF) Methodology and Assumptions

On October 26, 2010, the Canadian Steering Committee on Numbering (CSCN) discussed and agreed to the direction for the CNA with respect to the 2011 NRUF Methodology and Assumptions.

The attached document contains the direction titled "CSCN Direction to CNA re the 2011 NRUF Methodology and Assumptions, October 26, 2010".

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 the 2011 NRUF Methodology and Assumptions
October 26, 2010**

The CSCN submits the following methodology and assumptions to the CNA for the 2011 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, 2011, 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. A letter from CRTC staff to the CNA, dated 26 March 2003, and copied to the CSCN, directed the CNA to include an allowance for CO Code assignments for new unknown entrants, new technologies and other unforecasted demand in the area code exhausts projected by the 2003 G-NRUF. A table attached to the letter provided the quantities of codes that were to be added to the 2003 data as assigned CO Codes and carried forward throughout the 20 year study period with no growth. The quantities specified for the 2003 G-NRUF were used without changes for NRUFs from 2004 through 2007.

On 16 October 2007, CRTC staff provided quantities of CO Codes to be used in the 2008 NRUF as an allowance for unforecasted demand. When conducting the 2011 NRUF the CNA should use the same quantities for the allowance for unforecasted demand, except in NPAs where pools of CO Codes have been established for initial CO Code assignments, in which case the allowance for unforecasted demand should only be included for forecast years following the dissolution of the pool for initial CO Code assignments as noted in the table below. During the 20 October 2009 CSCN meeting CRTC staff identified that the quantities for NPAs 450, 613 and 705 should be used for the new overlay NPAs 450/579, 613/343 and 705/249 respectively. New overlay NPAs (i.e., 431, 873, 365) shall be treated in the same manner as above.

CRTC Staff Allowance for Unforecasted Demand		Relief year (est. = estimated)	Allowance to be excluded from forecasted total quantities prior to the year below (= year after the dissolution of the pool, which is 2 years after relief)	CRTC Telecom Decision or Notice establishing pool of CO Codes for initial CO Code assignments (Quantity)
NPA	Quantity of CO Codes			
204/431	3	2012	-	Note*
250/604/778	7	n/a	-	-
306	3	n/a	-	-
403/780/587	7	n/a	-	-
416/647	6	2014 (est.)	2017	Notice 2010-490 (17 Codes)
418/581	3	-	-	-
450/579	5	2010	2013	Decision 2009-225 (17 Codes)
506	3	n/a	-	-
514/438	6	n/a	-	-
519/226	5	n/a	-	-
613/343	7	2010	2013	Decision 2008-89 (25 Codes)
705/249	5	2011	2014	Decision 2009-622 (17 Codes)
709	2	n/a	-	-
807	2	n/a	-	-
819/873	2	2013	2016	Notice 2009-308 (17 Codes)
867	2	n/a	-	-
902	3	n/a	-	-
905/289/365	7	2013	2016	Notice 2009-310 (22 Codes)

Note*: In Telecom Notice of Consultation CRTC 2009-309, *Establishment of a CISC ad hoc committee for area code relief planning for area code 204 in Manitoba*, dated 28 May 2009, the Commission did not direct the CNA to set aside any CO Codes for initial code assignments during the 2 year period following relief.

The quantities of CO Codes in the above table for the CRTC Staff Allowance for Unforecasted Demand should be carried forward for the 20-year study period with no growth.

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 for assignment to initial CO Code Applicants for a 2-year period after implementation of an Overlay, the CNA shall add such quantities to the actual quantity of CO Codes for January 1 of the current year and carry them forward in the forecasts until the Relief Date, since these set-aside CO Codes are unassignable from the date of the Decision until immediately prior to the Relief Date, after which they become assignable (with limitations). 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 on 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 alternative 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 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 is 1 Stranded Code with ported telephone numbers in NPA 705, and that there is a possibility that a second Stranded Code may exist in the near future.
 - b) For the purposes of the 2011 NRUF, the CNA shall assume that the CO Code(s) that is stranded at the beginning of 2011 will remain stranded indefinitely.
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 Guideline, approved by the Commission on 14 May 2010 in Telecom Decision CRTC 2010-281, or as otherwise directed in writing by the CRTC when the draft aggregate results are released, and in the subsequent 2011 NRUF Report to the CSCN after the aggregate results are finalized.
8. 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.
9. The CNA shall not add or include any demand for CO Codes for proposed CLECs that did not submit NRUF forecasts, other than the demand that is already allowed for in the quantity of CO Codes for unforecasted demand specified by CRTC staff.
10. For the purpose of the NRUF the CNA should assume that the overlay method will be used for future NPA Reliefs unless CRTC staff advises otherwise.
11. For the purpose of calculating NPA 778 exhaust, the CNA should assume that the remaining NPA 250 and 604 CO Codes will be assigned prior to the exhaust of NPA 778 CO Codes in the NPAs 250 and 604 areas.

12. For the purpose of calculating NPA 587 exhaust, the CNA should assume that the remaining NPA 403 and 780 CO Codes will be assigned prior to the exhaust of NPA 587 CO Codes in the NPAs 403 and 780 areas.