Gas Balancing Alert & Safety Monitor update

Gas Ops Forum, 26 May 2010

Gary Dolphin

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Agenda

- Winter 2009/10
  - What would have happened wrt Gas Balancing Alerts if we had not disaggregated storage into individual site level for GBA calculation?
- 2010/11 Safety Monitor
  - Variable Non Storage Supply for SM calculation
  - Impact of supply loss on SM

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A quick recap….

- Changes for winter 2009/10:
  - GBA calculation
    - disaggregated storage into individual site level
  - SM calculation
    - single safety monitor for space (rather than Long, Medium & Short)
    - clarification of deliverability requirement

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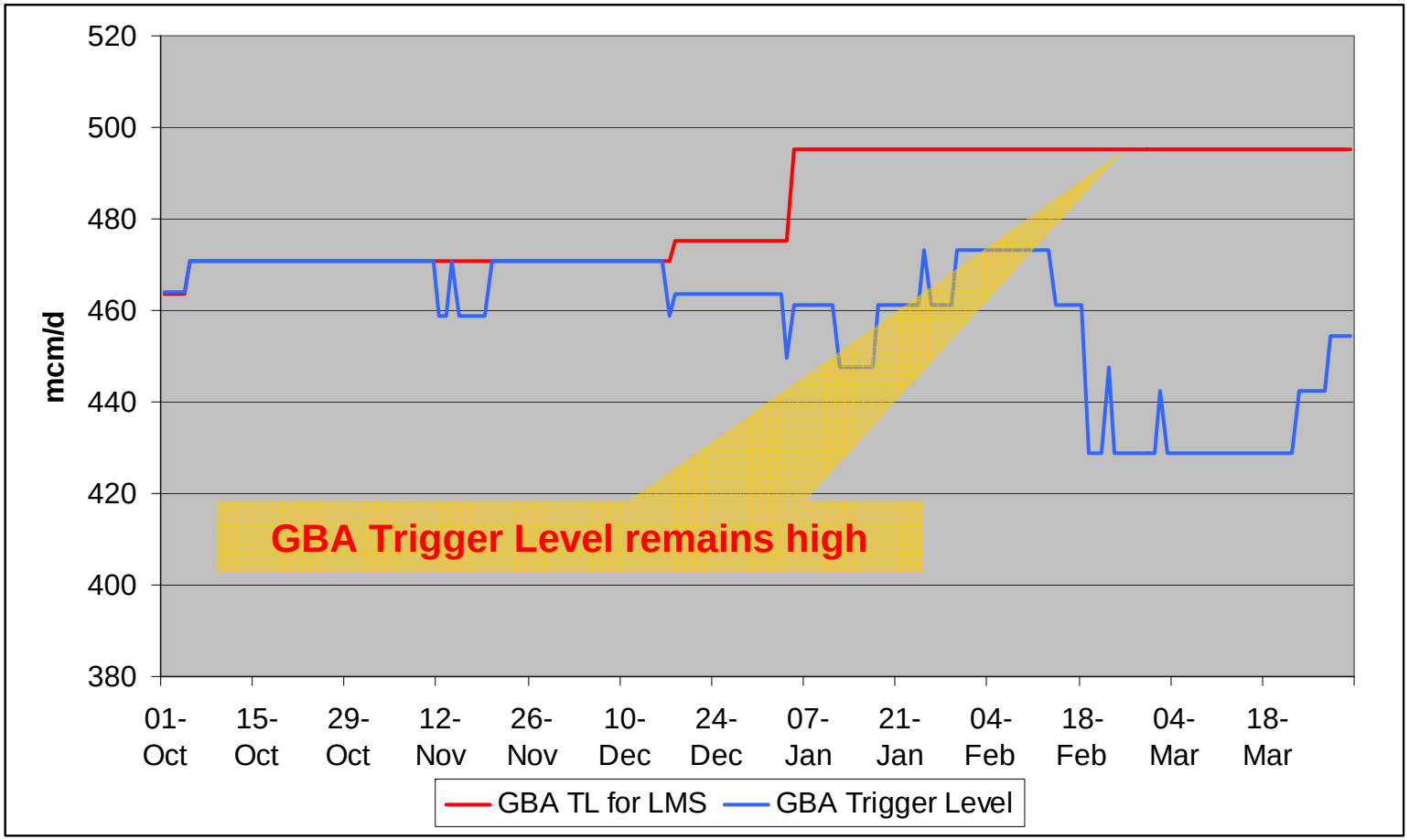
GBA Trigger Level comparison



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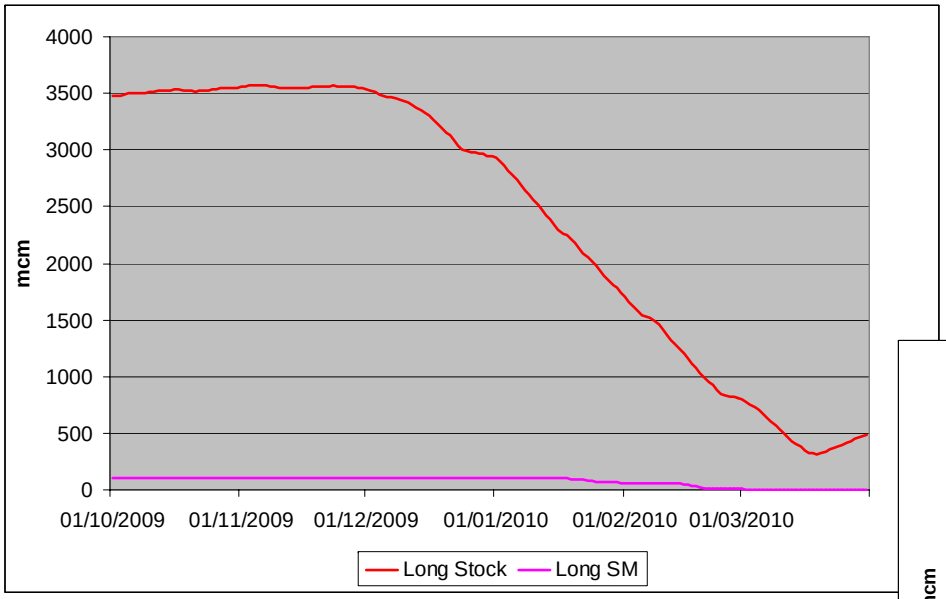
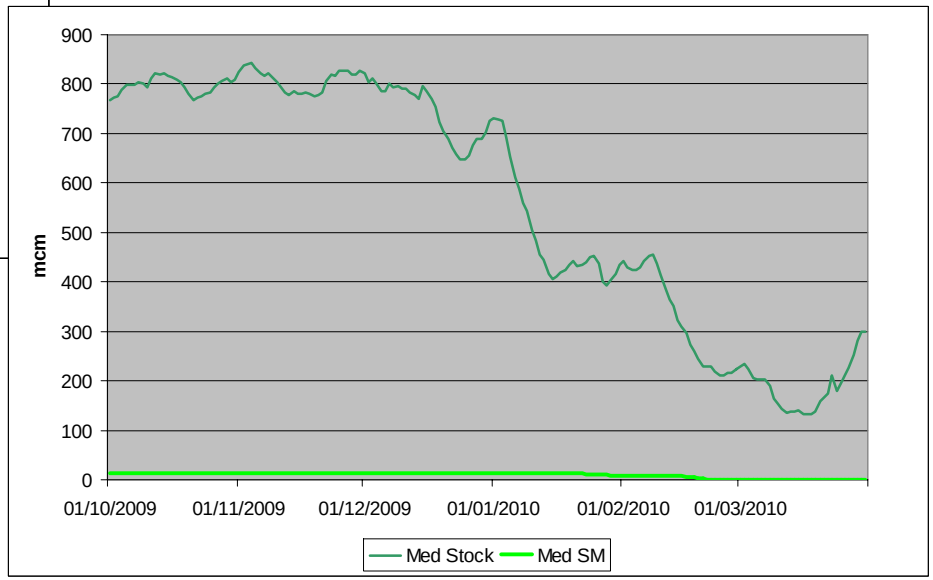
Stocks and Monitors for Long, Medium & Short



On first inspection everything looks fine…….



For both Long and Medium SM: aggregated stock level is always greater than SM space reqt + 2 days of aggregated deliverability

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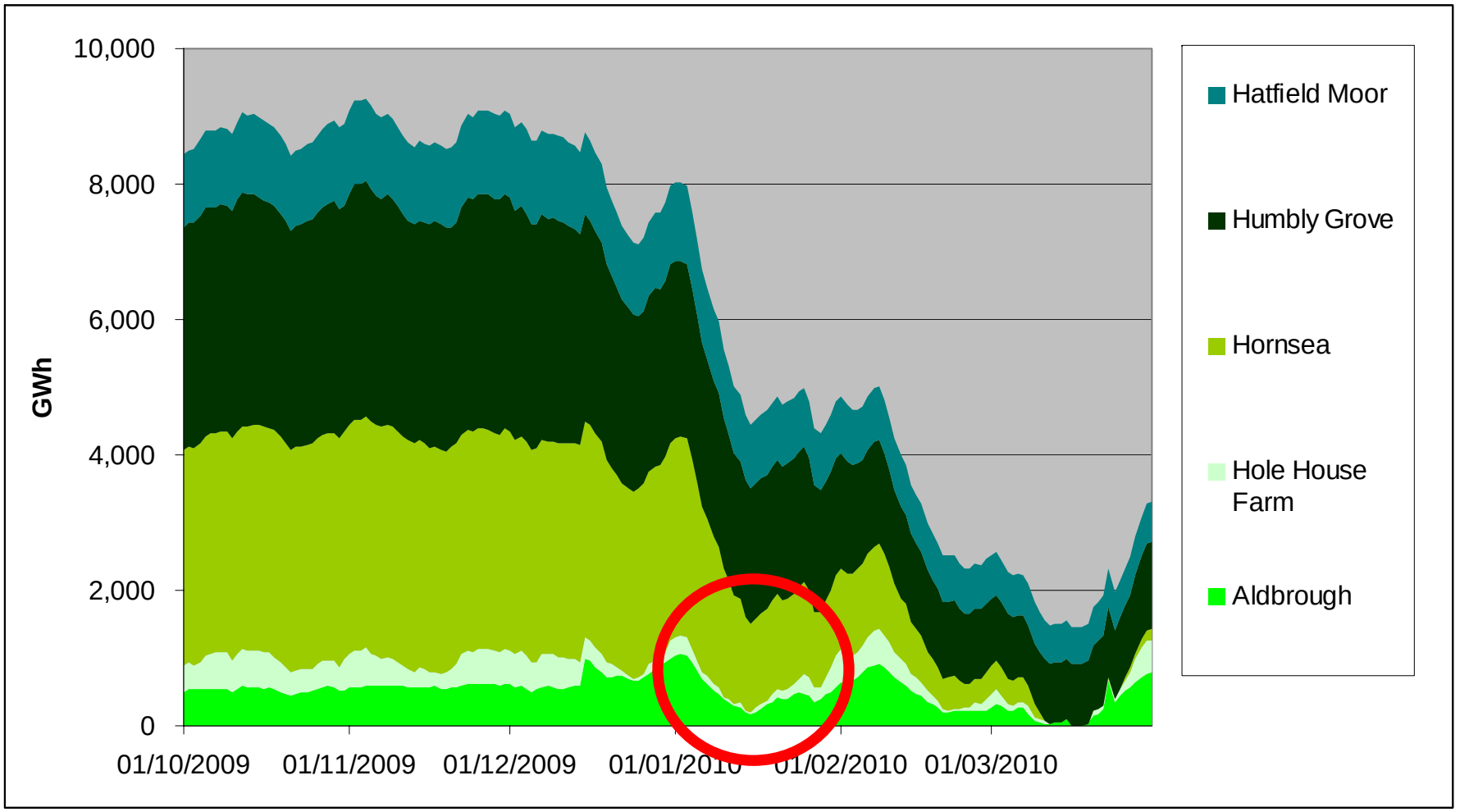
Medium



…..but certain sites were low by early January

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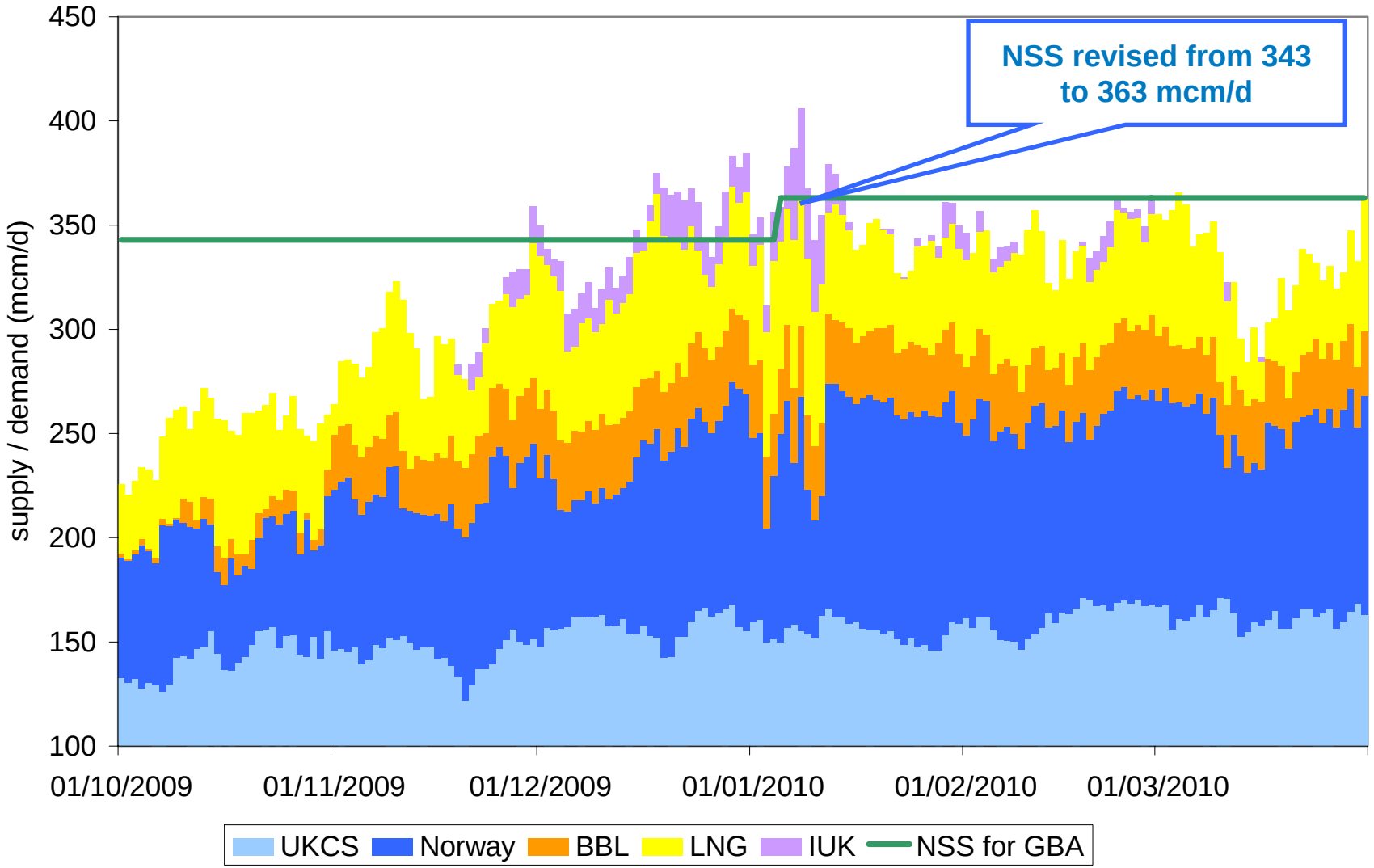
Winter 2009/10 supplies and Non Storage Supply (NSS) assumption



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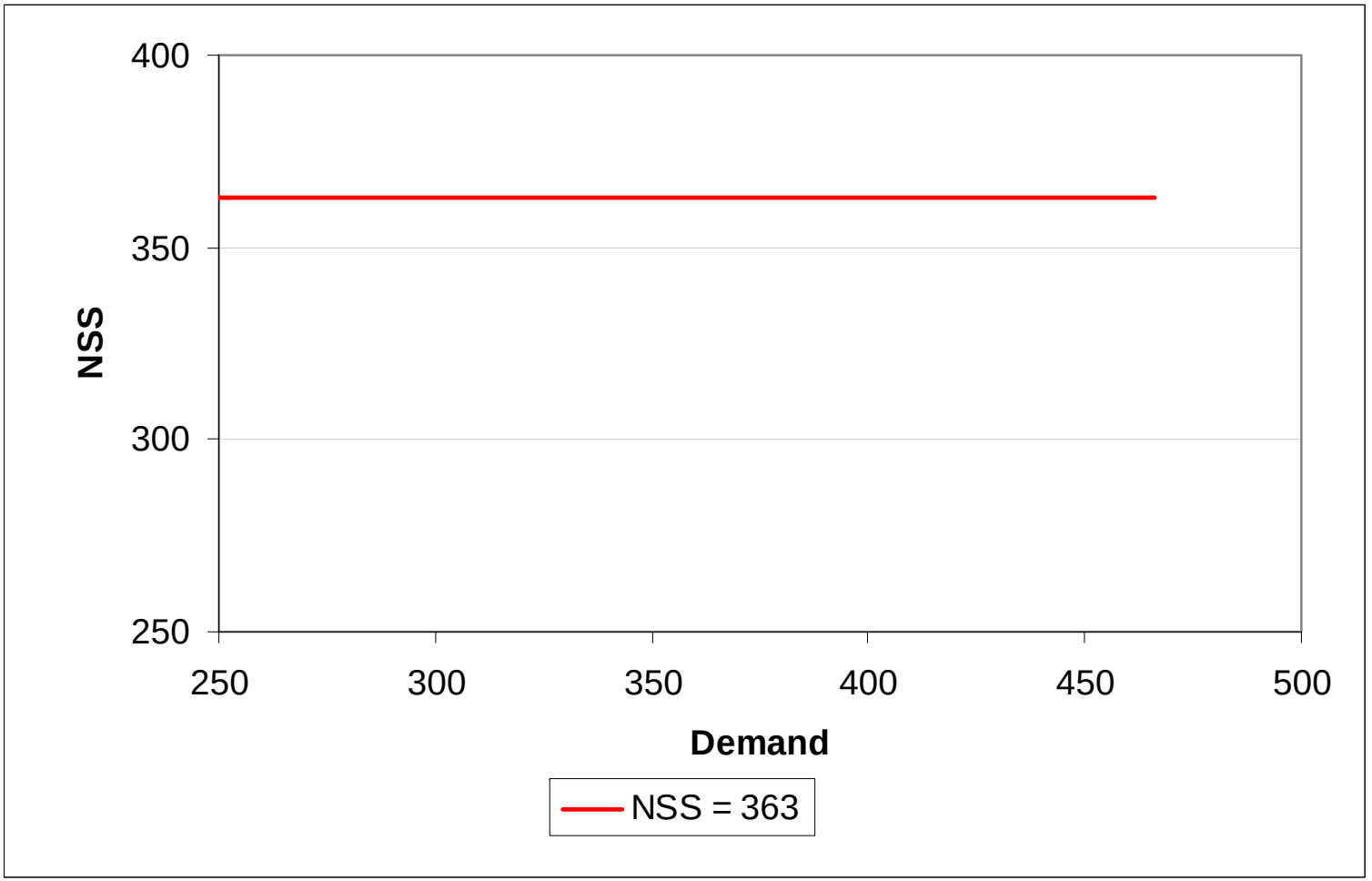
2009/10 Safety Monitor Calculation



All data in mcm/d

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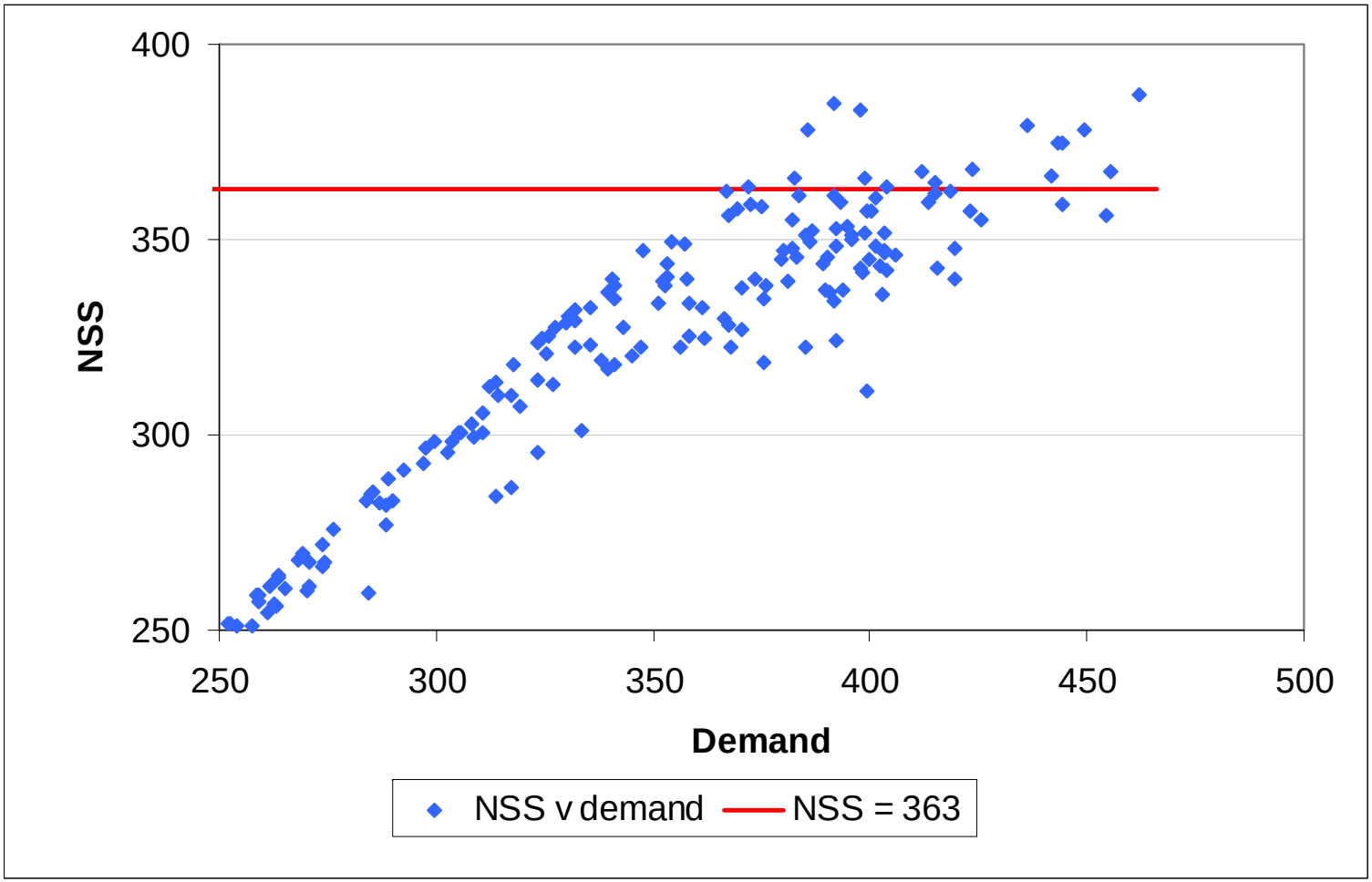
Actual winter 2009/10 NSS versus demand



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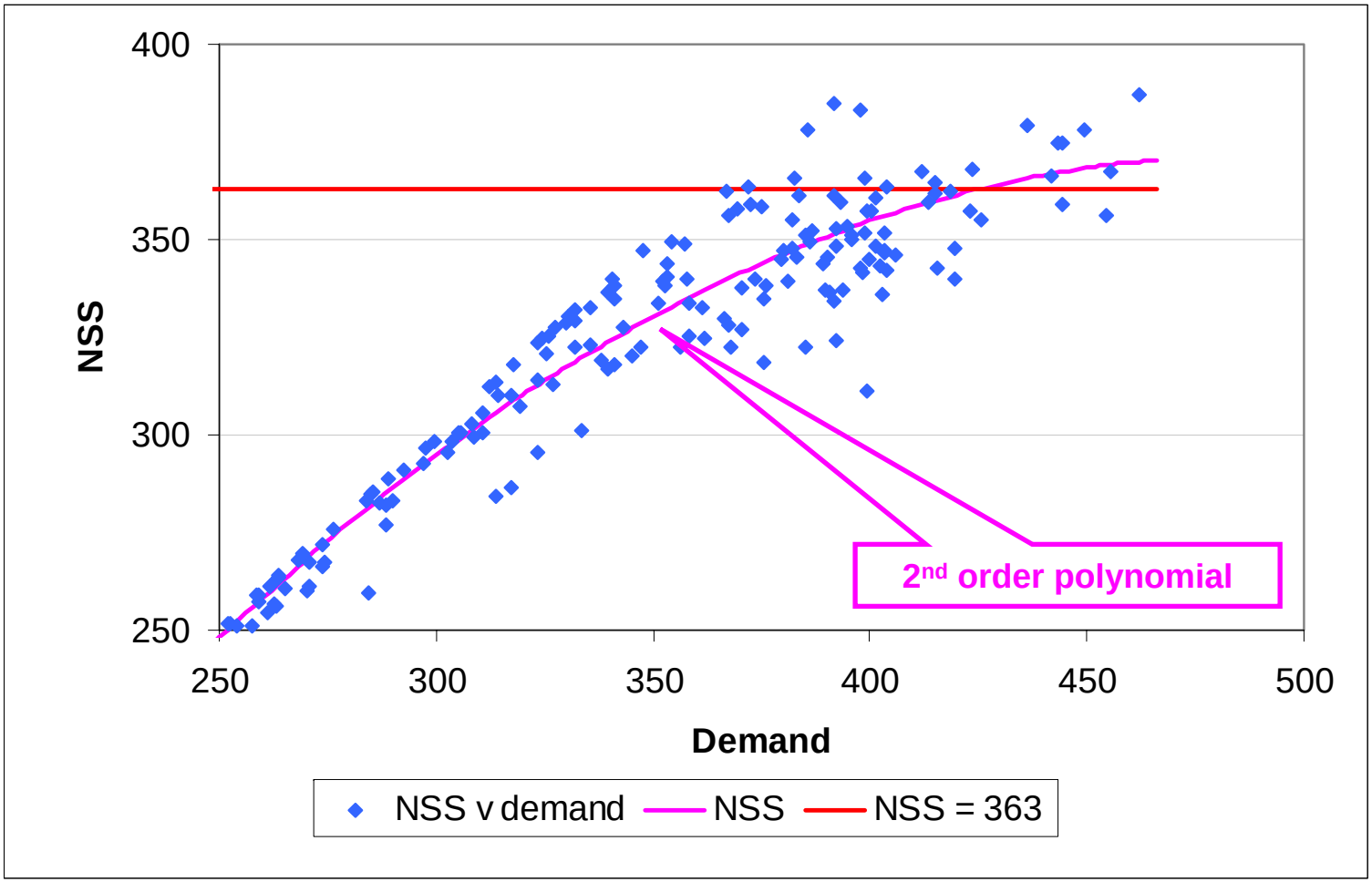
Winter 2009/10: trendline



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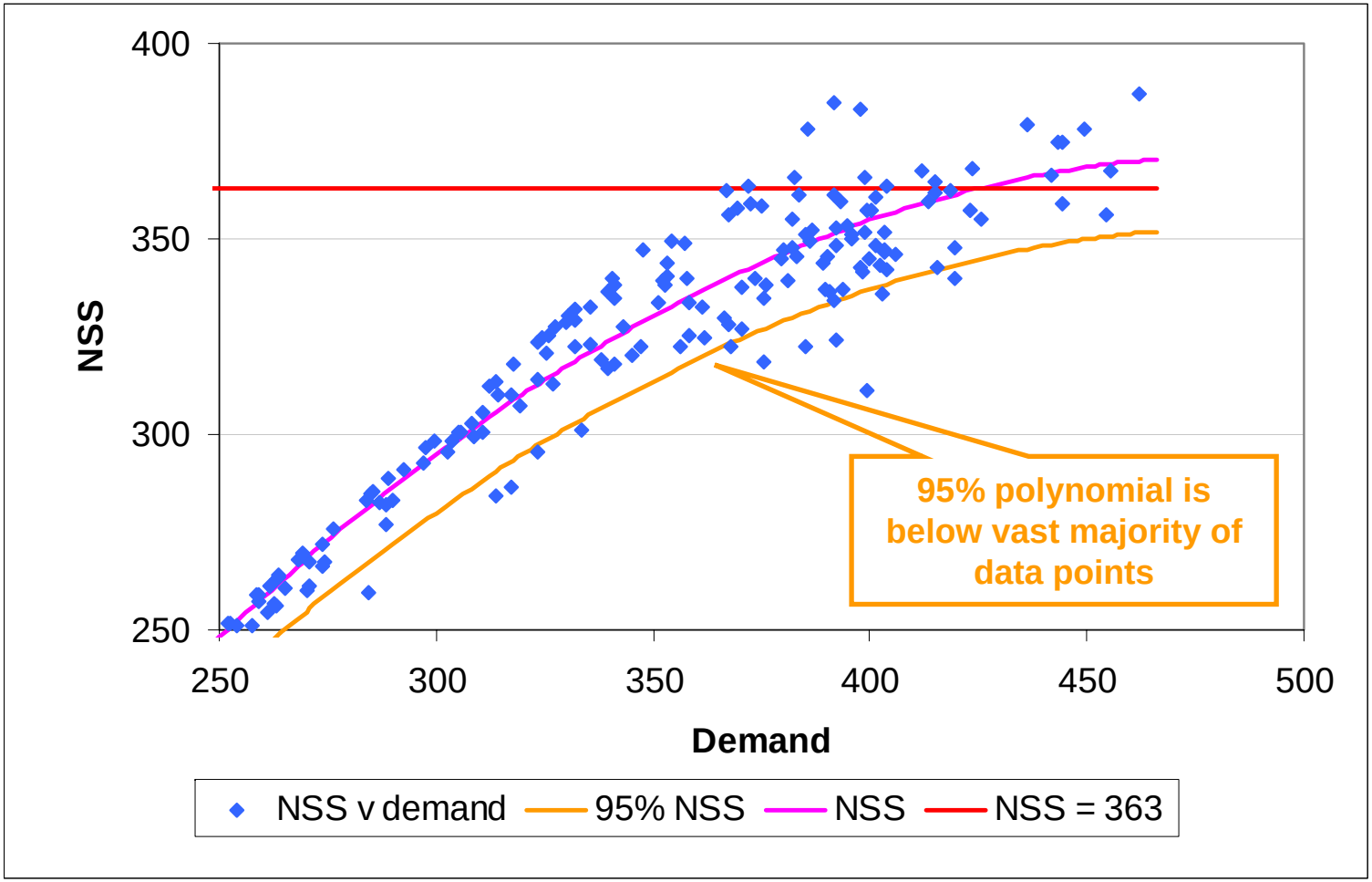
Winter 2009/10: 95% of trendline



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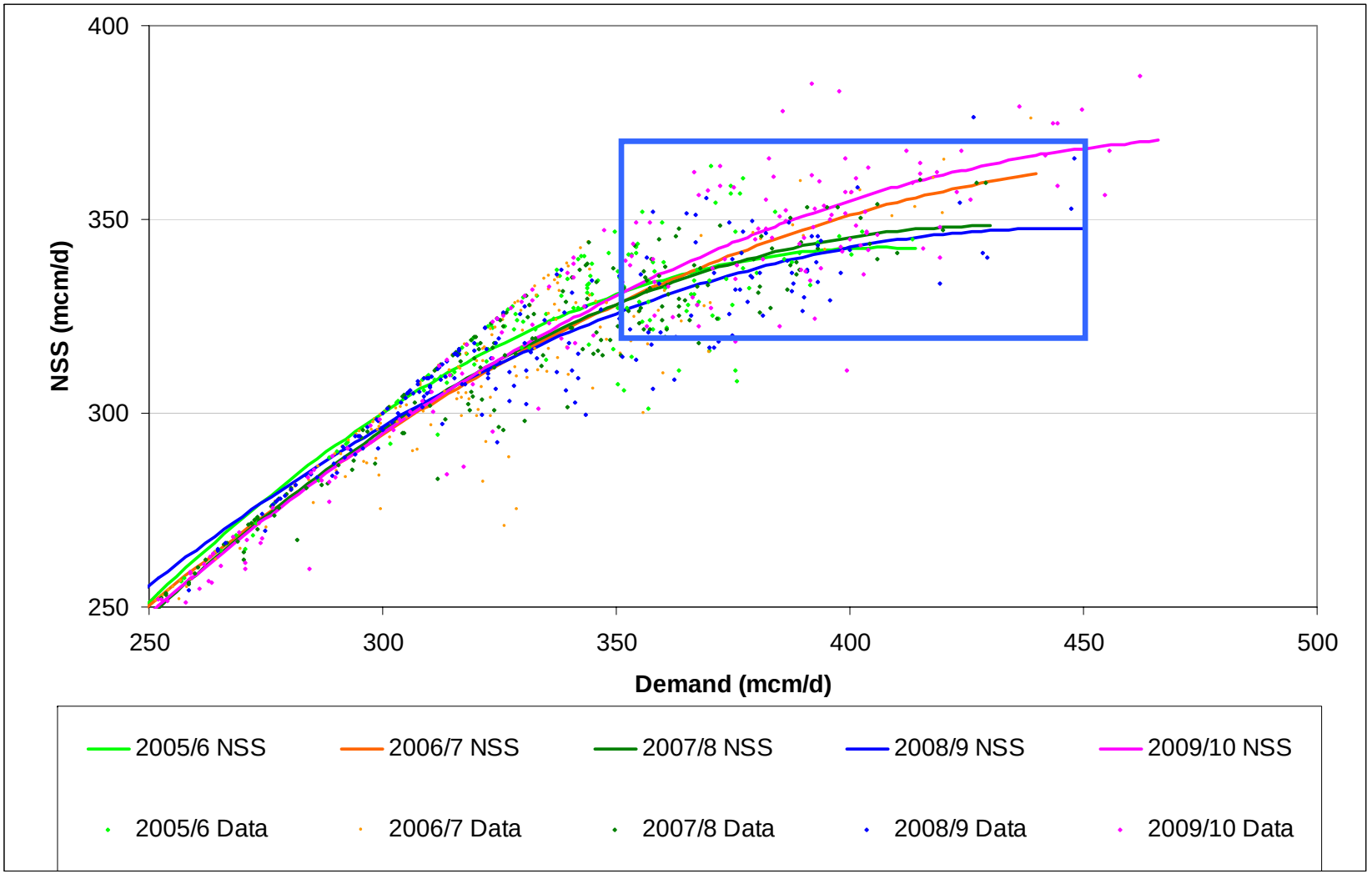
Last five winters



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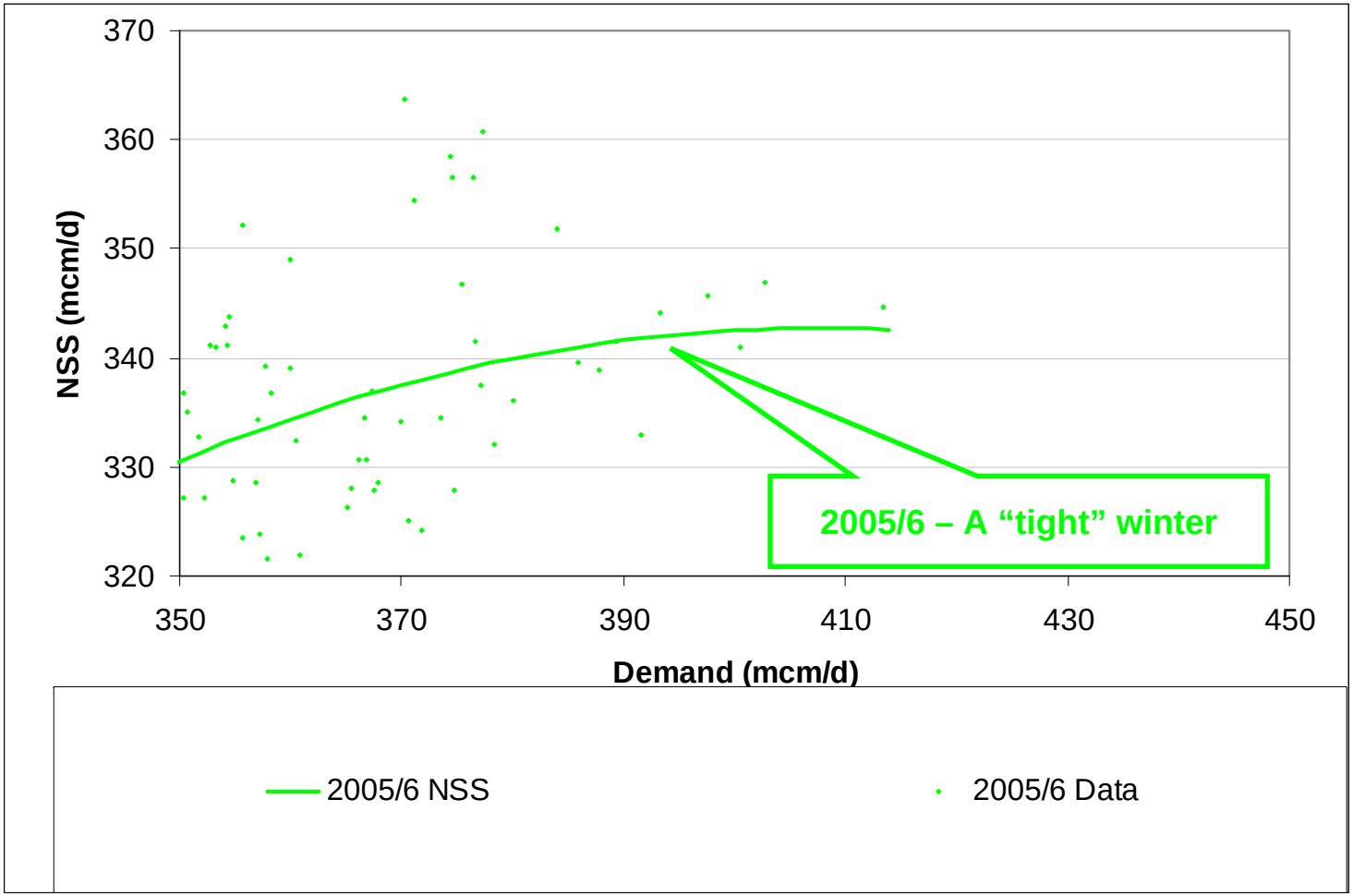
Let me tell you a story….



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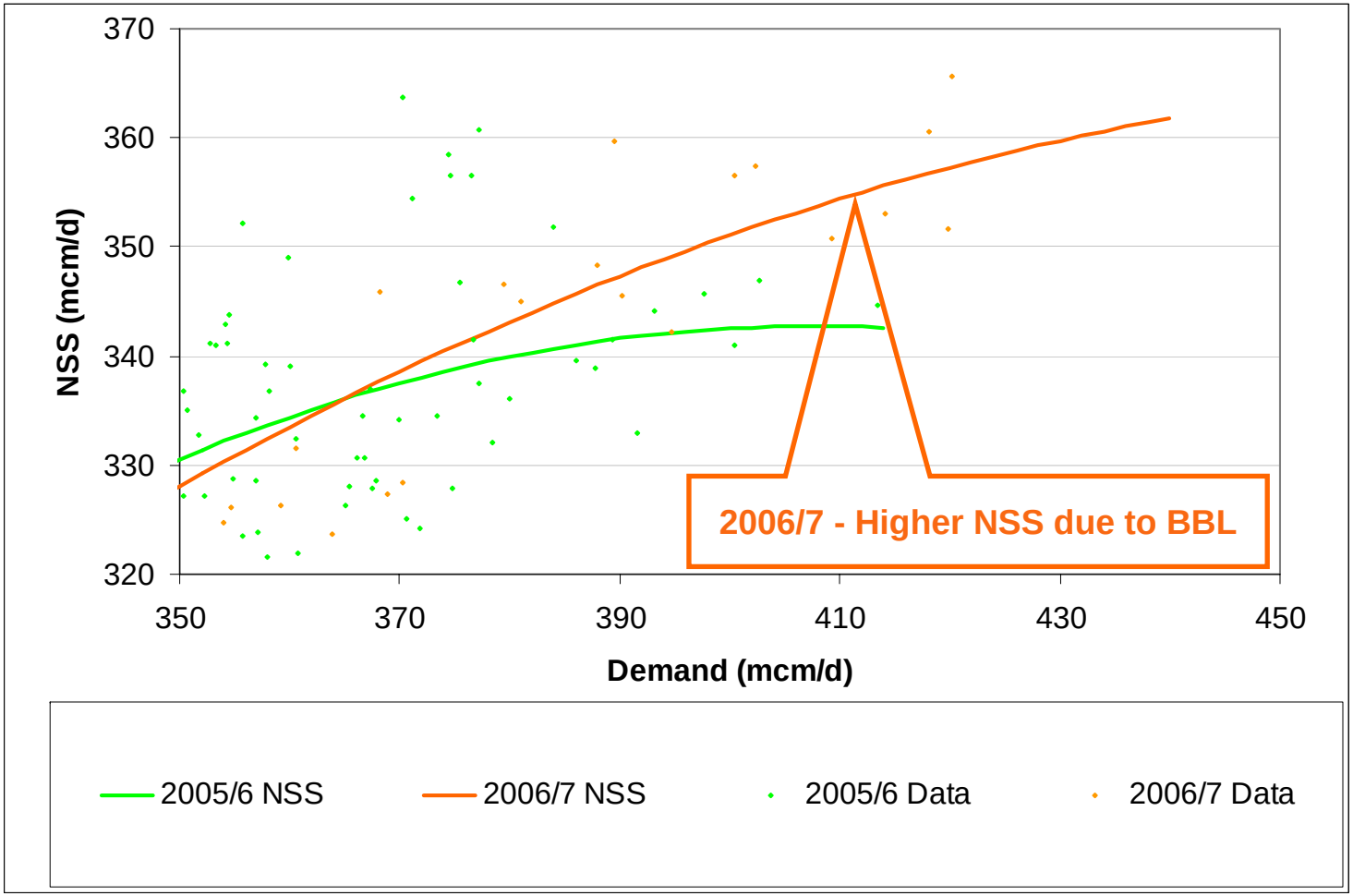

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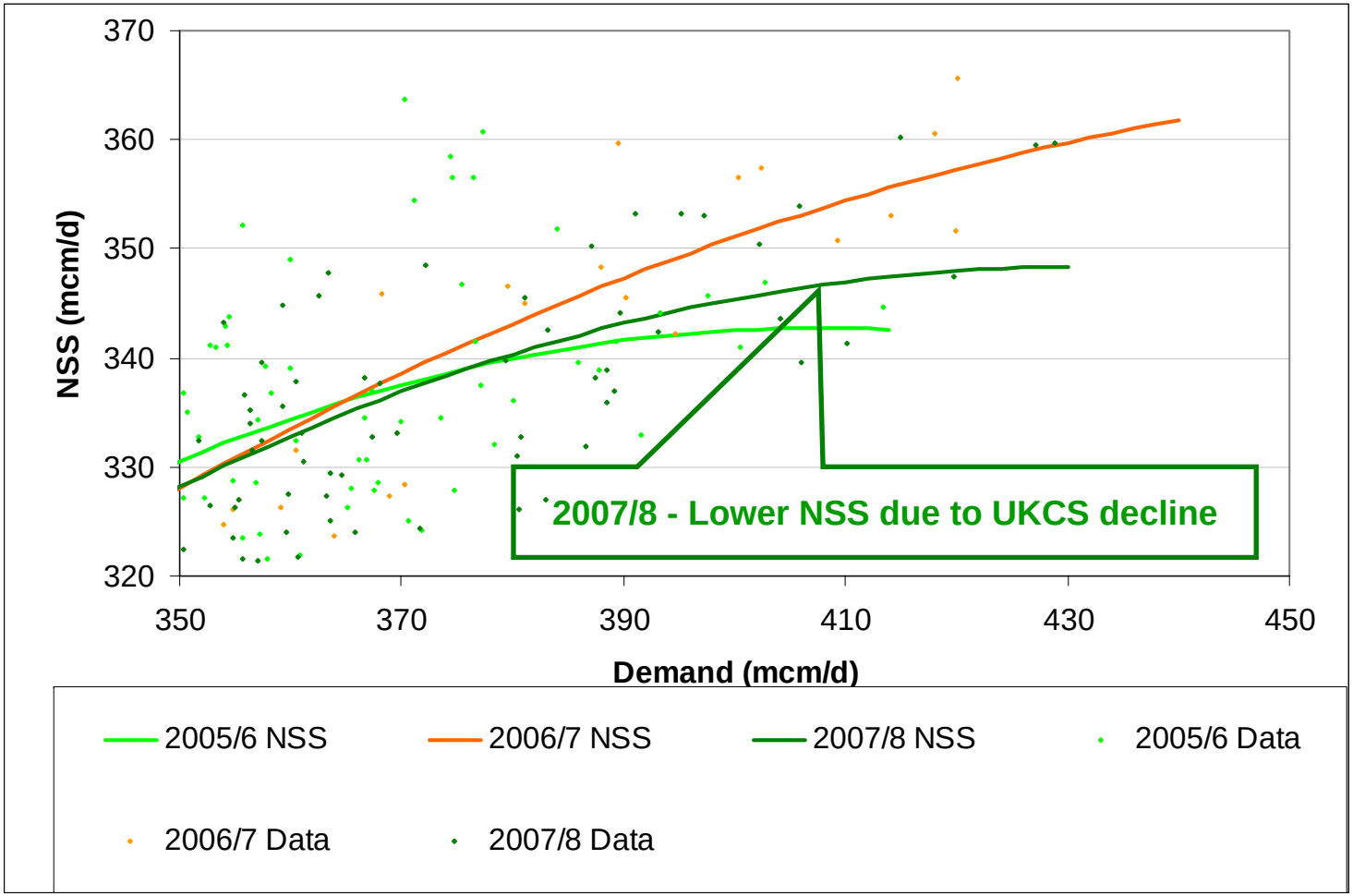

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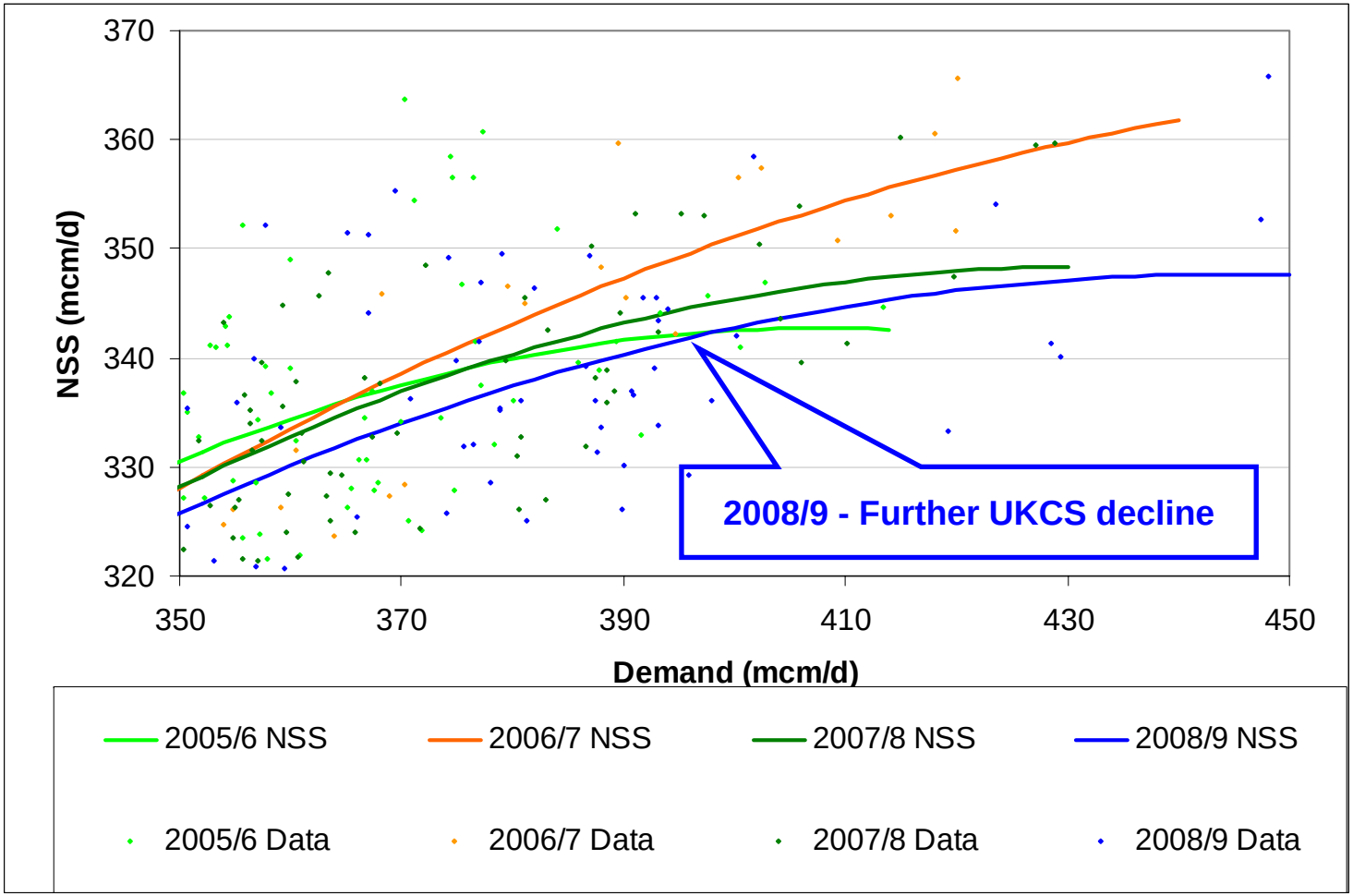

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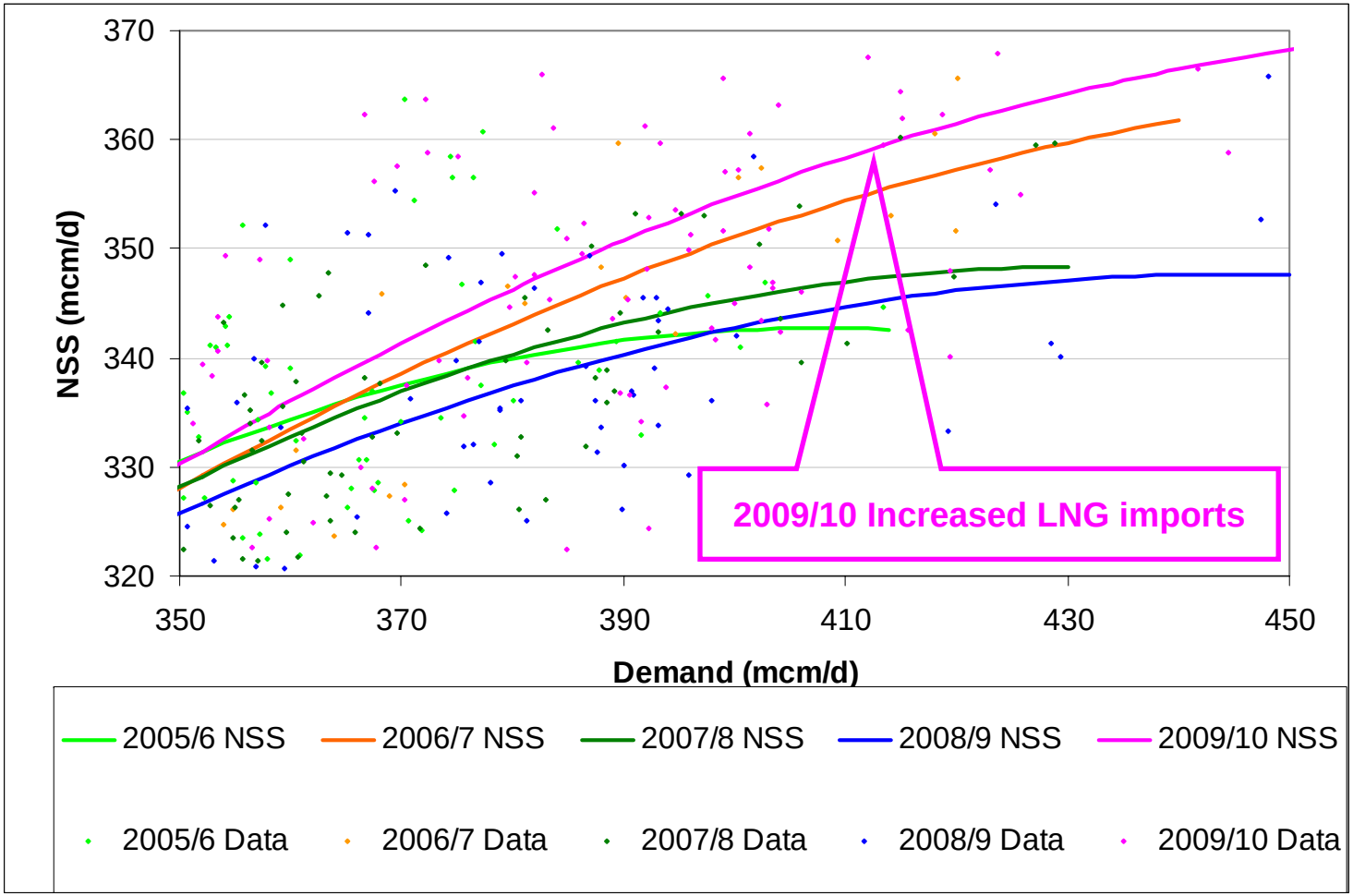

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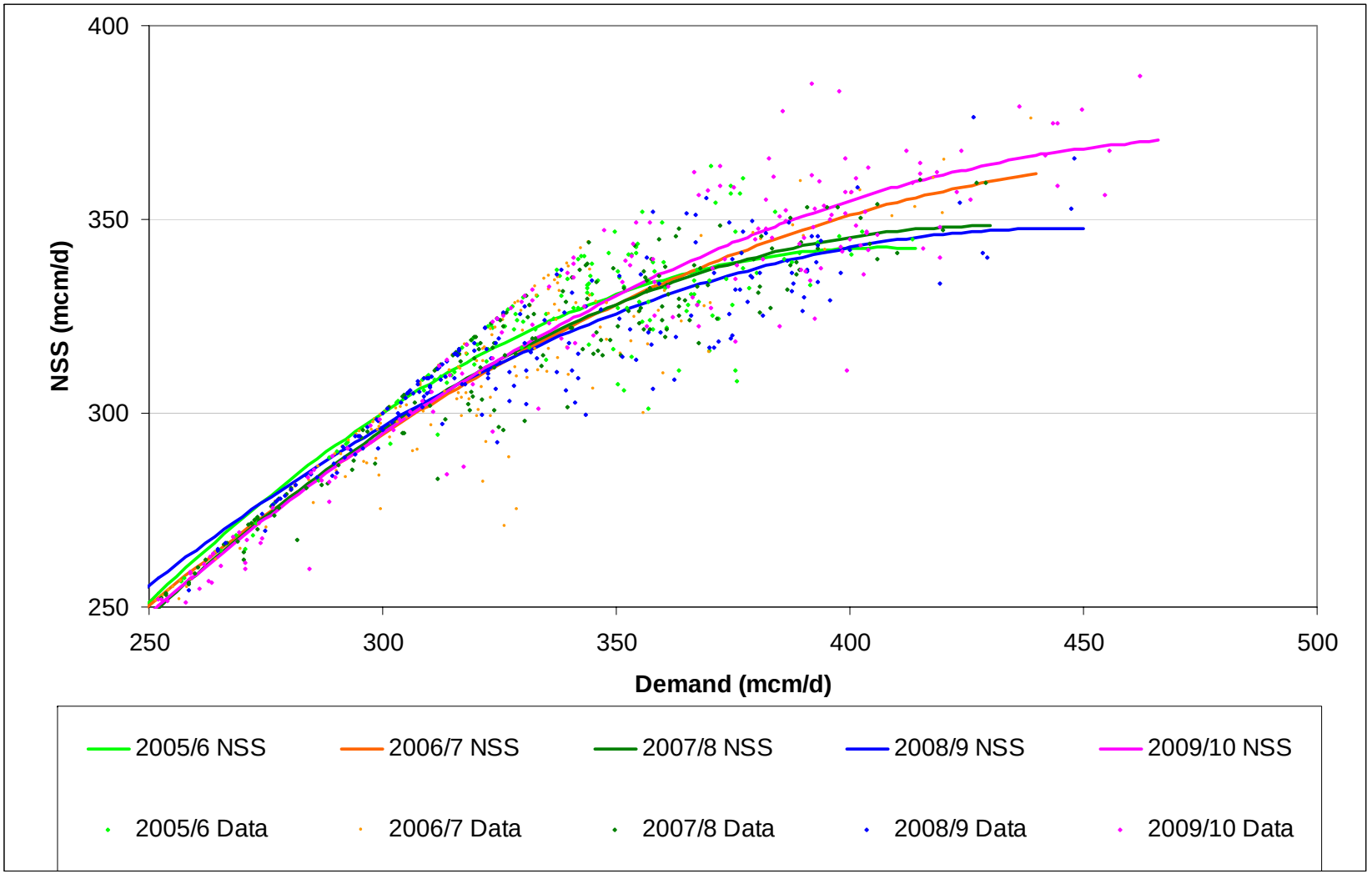

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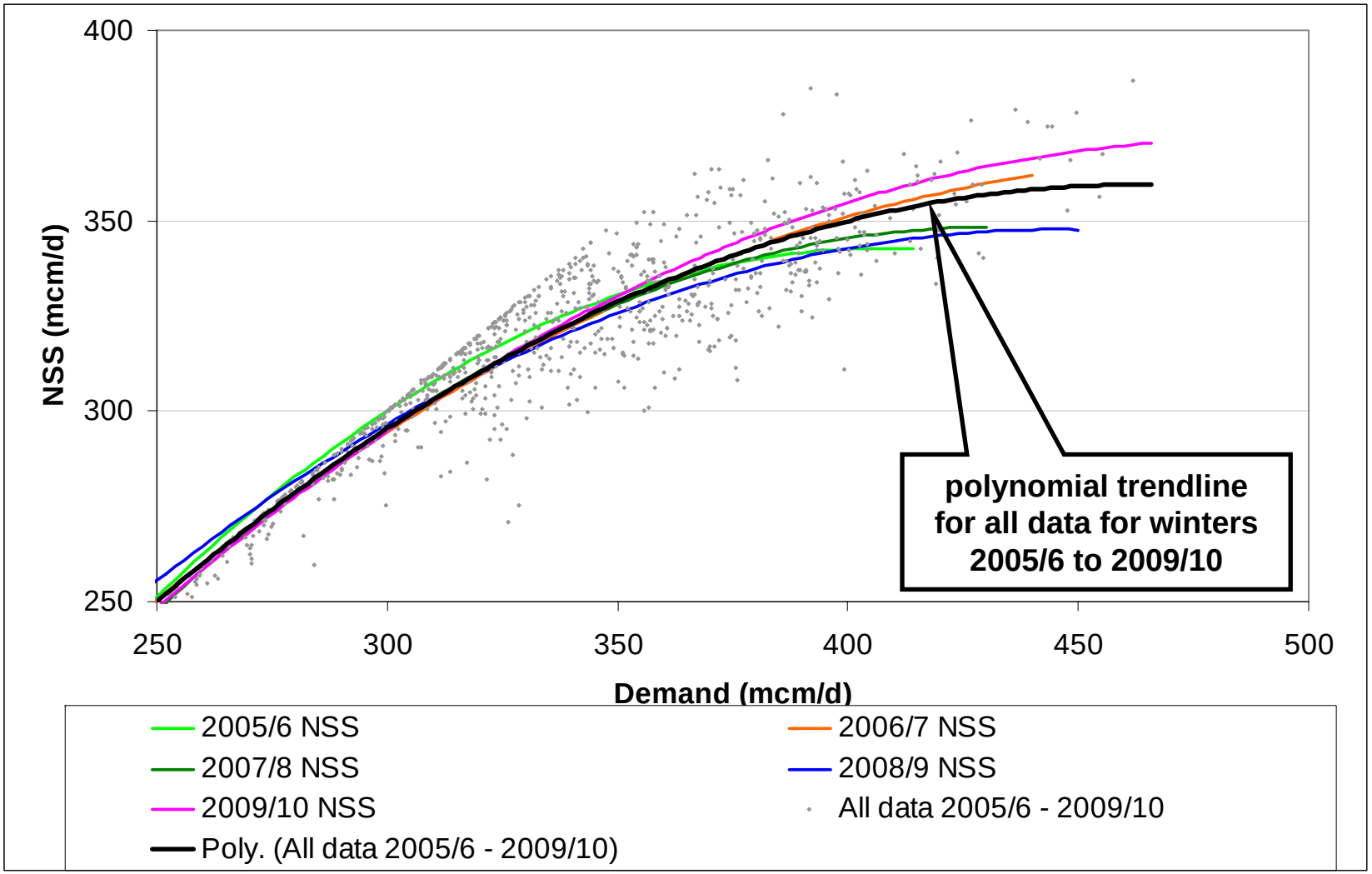

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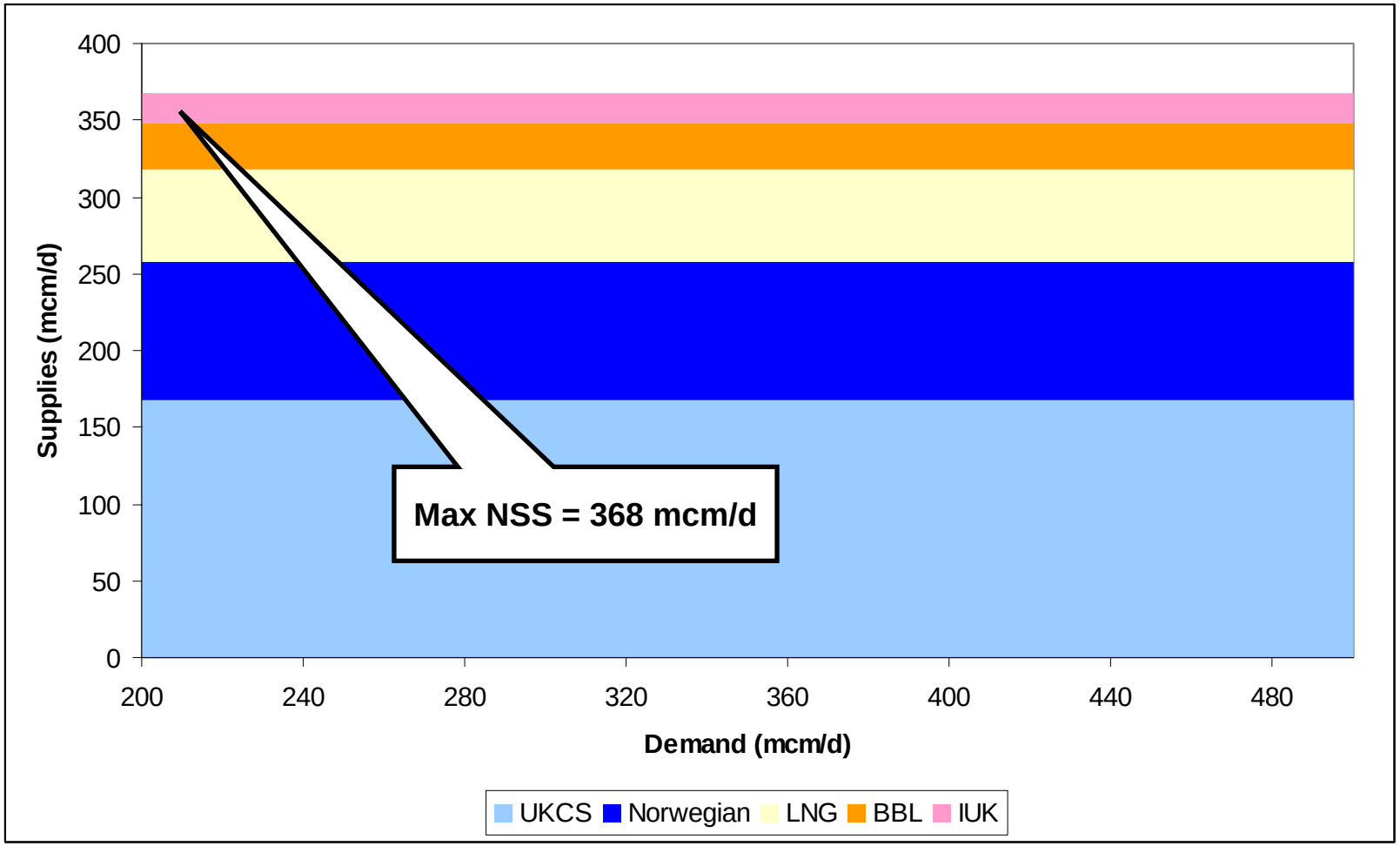
2010/11 Safety Monitor

preliminary Non Storage Supply (NSS) assumptions

	WOR 2009/10	Final 2009/10 NSS	Preliminary 2010/11	
UKCS	183	173	168	Further decline (No. at 90% operational availability)
Norway	100	90	90	Reflects winter 2009/10 performance
LNG	40	60	60	Potential upside from additional capacity at Grain and Milford Haven
BBL	20	30	30	Reflects winter 2009/10 performance
IUK	0	10	20	Flows on high demand days
NSS	343	363	368	

2010/11 Safety Monitor
preliminary NSS assumptions



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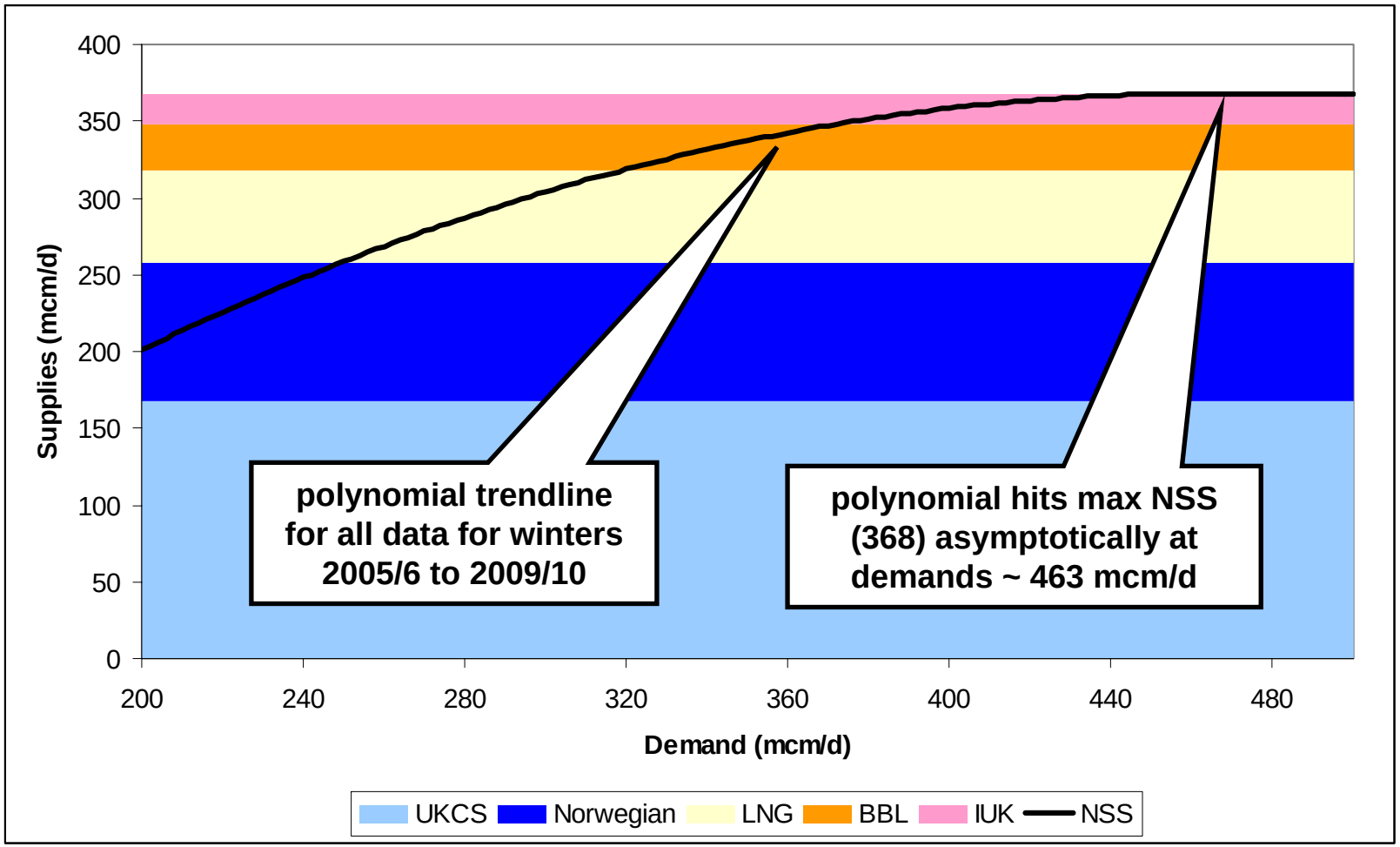
2010/11 Safety Monitor
Variable NSS



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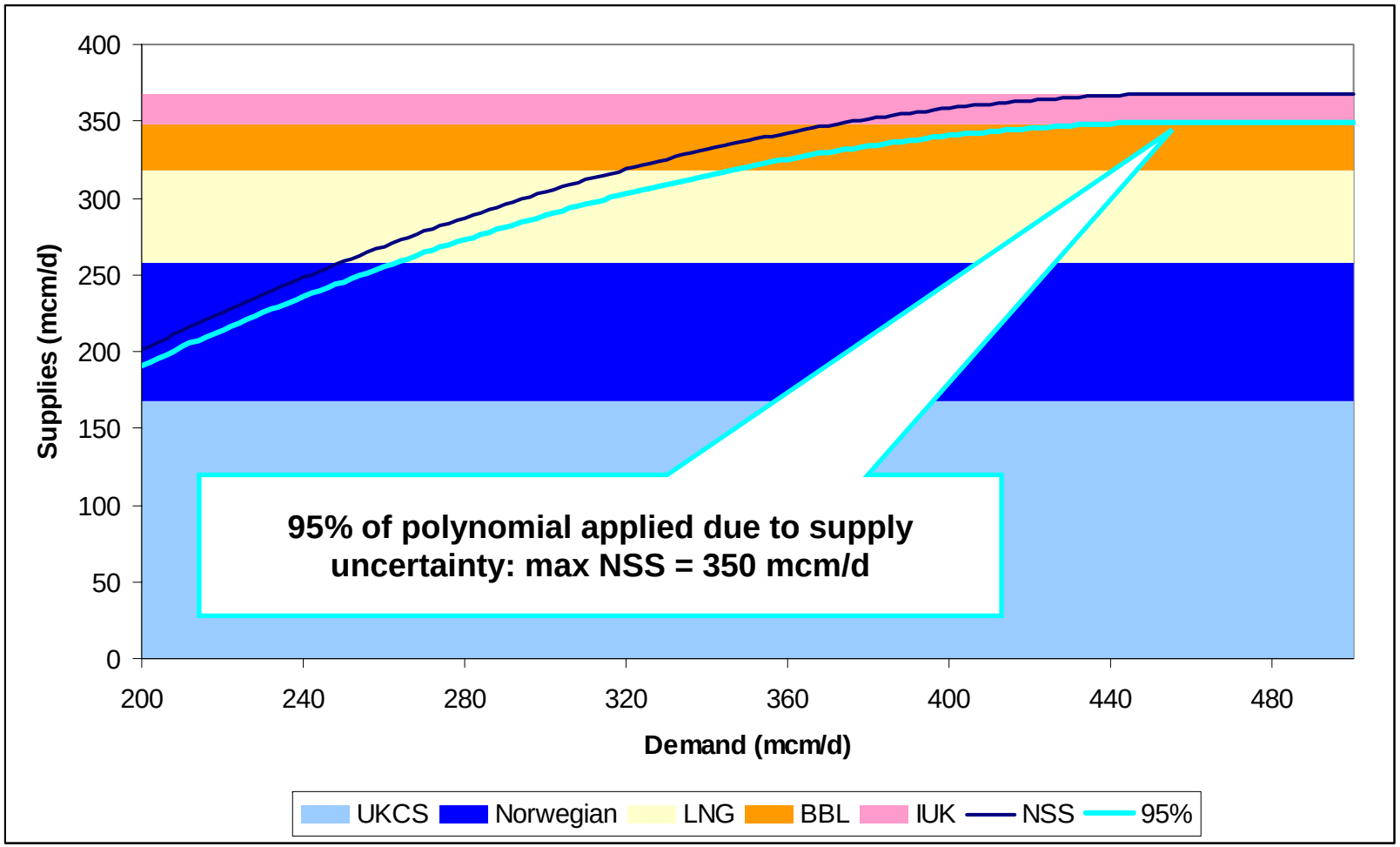
Safety Monitors



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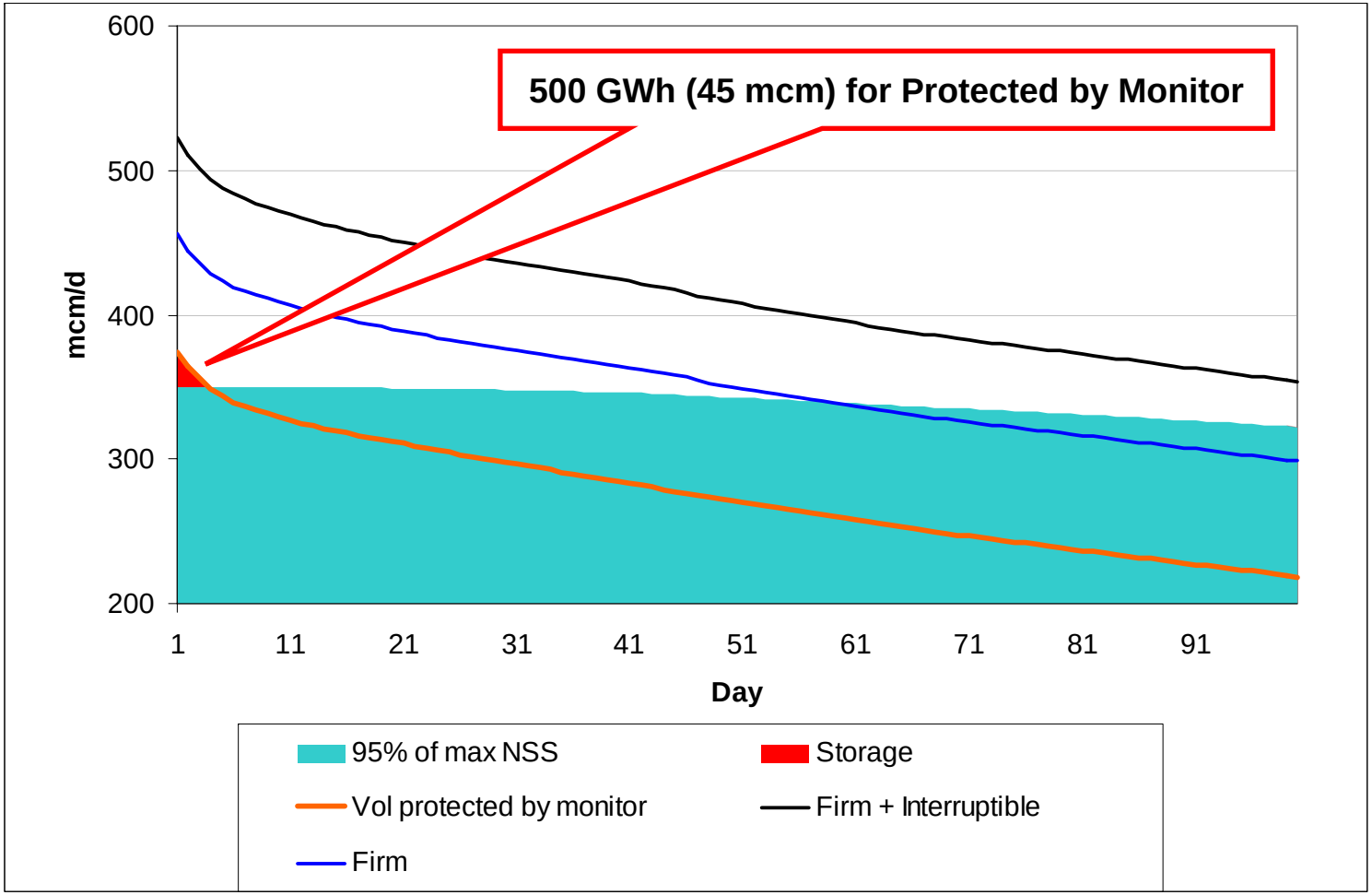
Preliminary SM 2010/11: Protected by Monitor



Note: numbers are provisional

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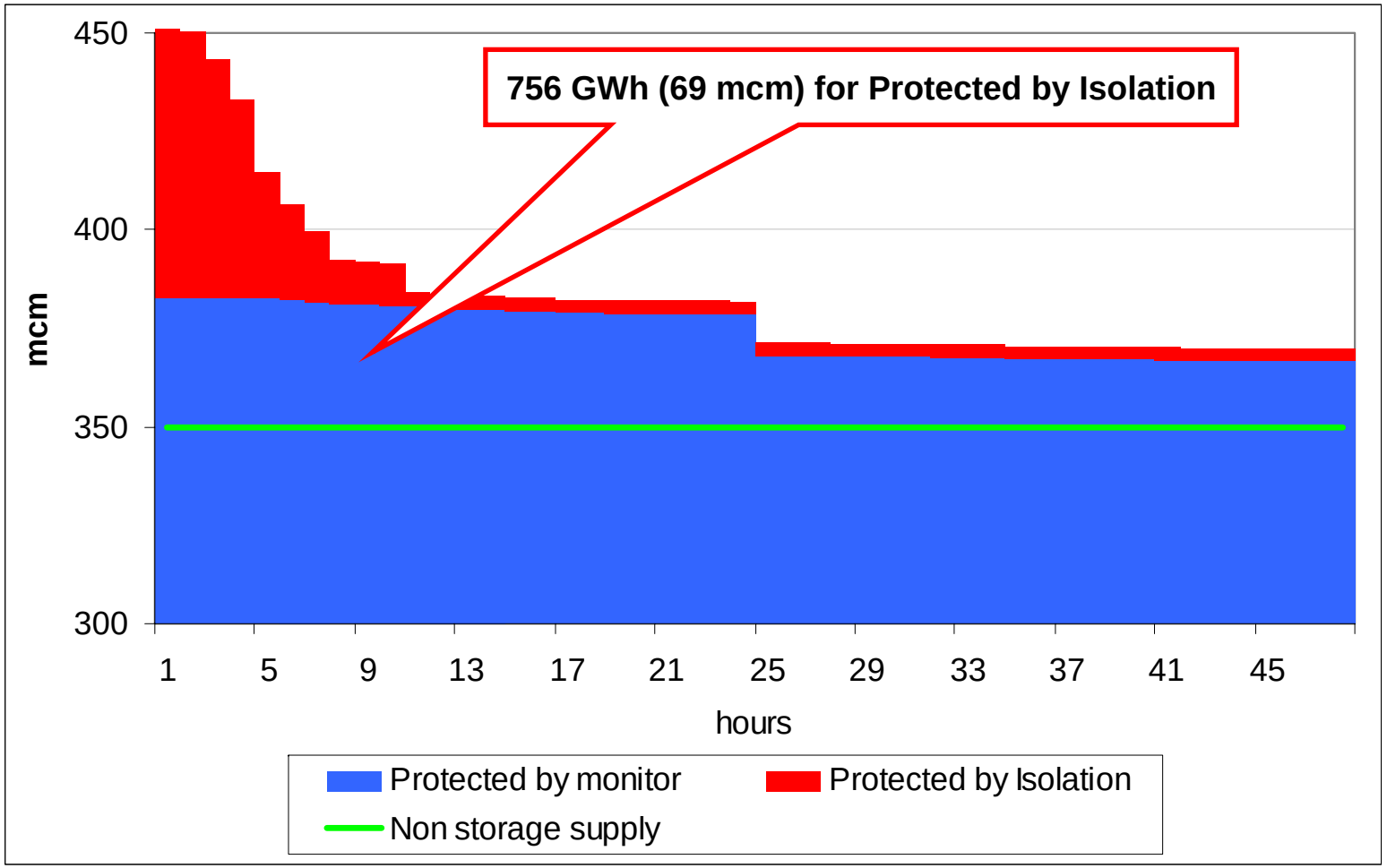
Preliminary SM 2010/11: Protected by Isolation



Note: Chart shows isolation occurring on Day 1 and 2 of severe ldc

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Preliminary 2010/11 Safety Monitors

- Results using variable NSS methodology
  - Space: 822 GWh (75 mcm)
  - Deliverability: 596 GWh/d (54 mcm/d)
- September 2009 2009/10 SM requirements:
  - Space – 1127 GWh, Deliverability – 639 GWh/d

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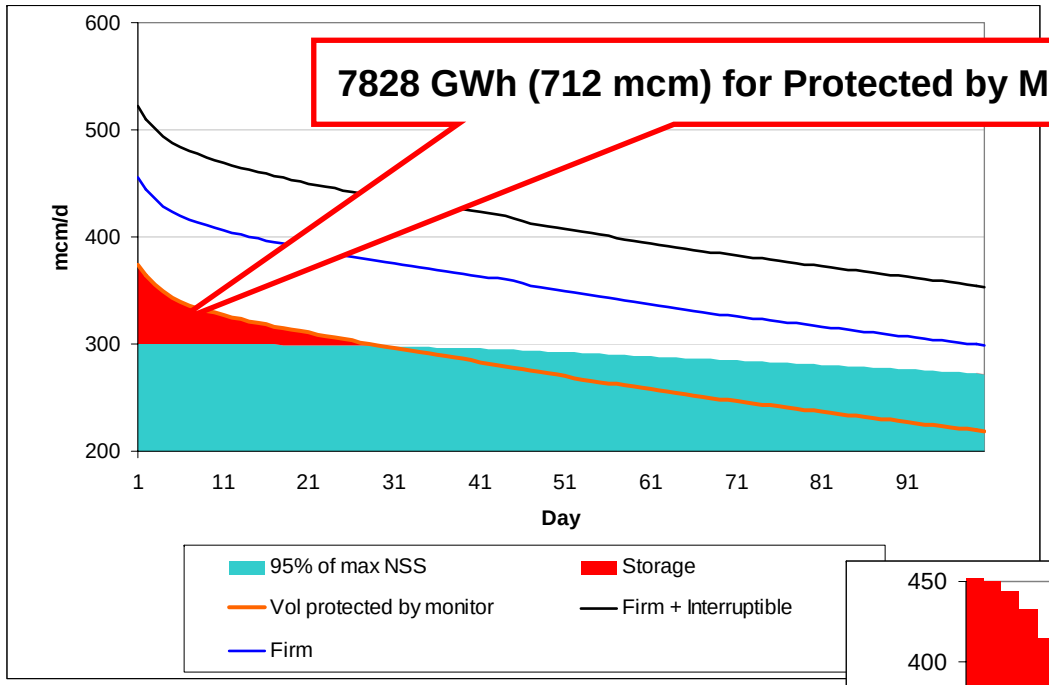
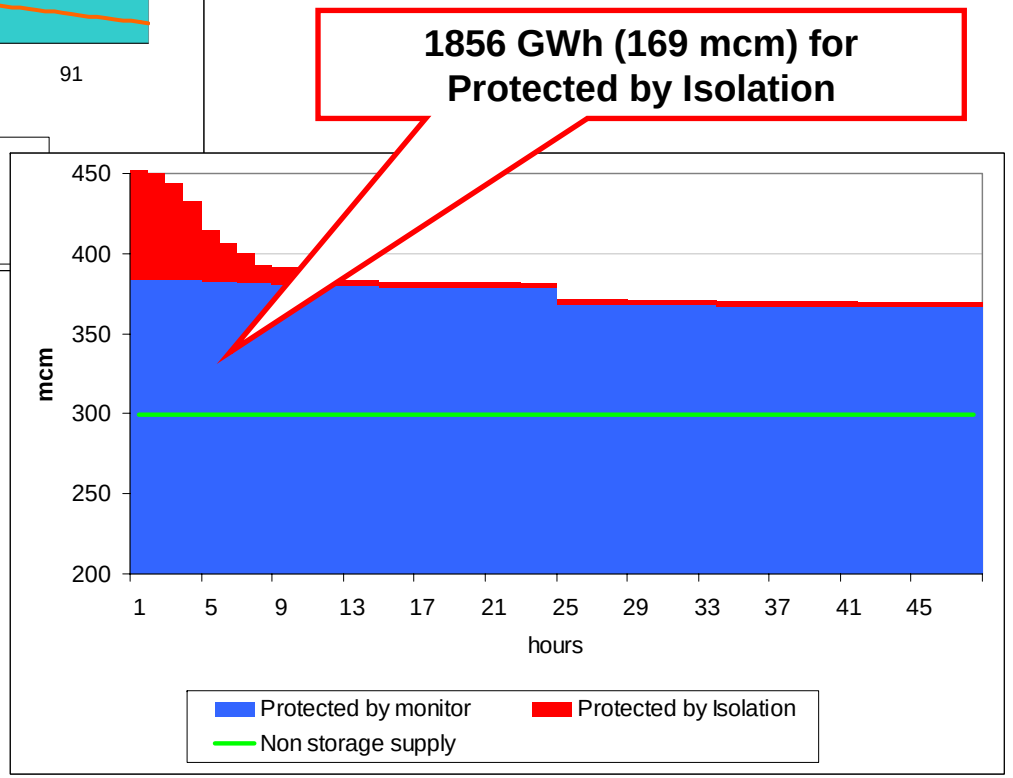
Supply Shocks

- Safety Monitor space and deliverability requirements are very sensitive to Non Storage Supply assumptions
- Any major sustained supply shock would require the Safety Monitors to be recalculated
- Propose publishing an indicative Safety Monitor with 50 mcm/d supply loss – for information purposes only

Preliminary indicative SM 2010/11 with 50mcm/d supply shock - Protected by Monitor & Protected by Isolation

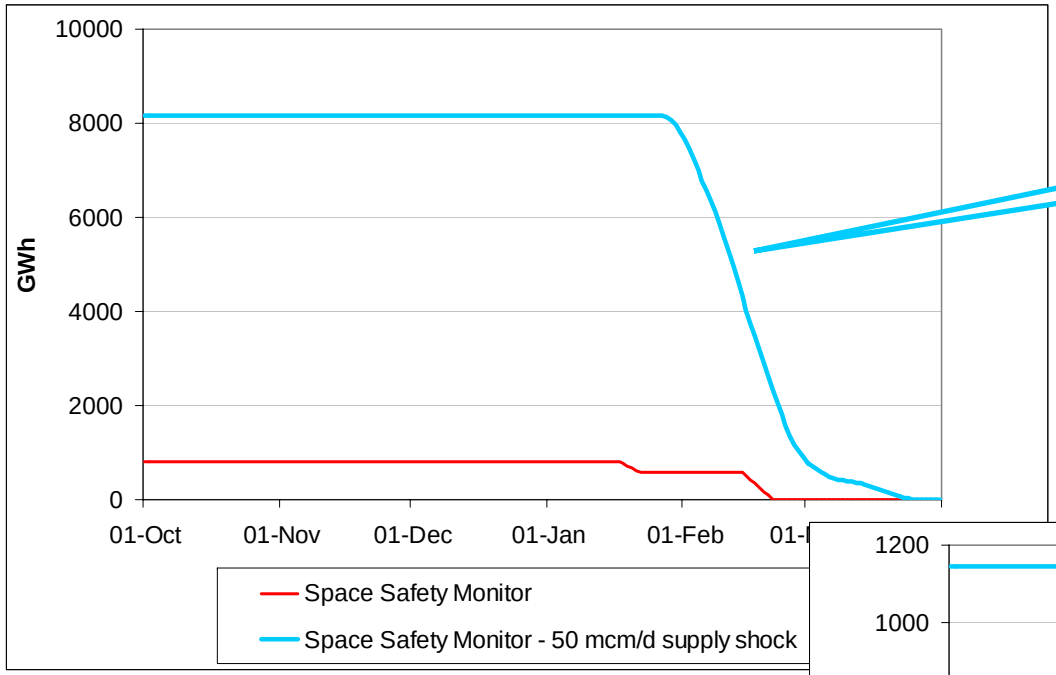




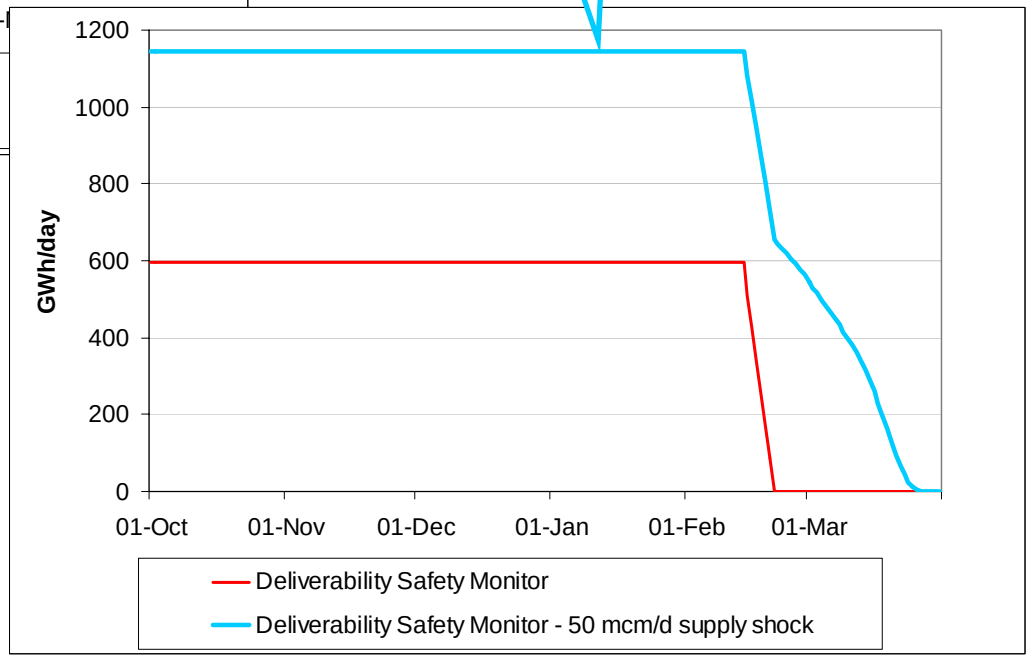
Preliminary indicative 2010/11 Safety Monitors with 50mcm/d supply shock

- With 50 mcm/d supply shock
  - Space: 8149 GWh (741 mcm)
  - Deliverability: 1146 GWh/d (104 mcm/d)
- Compared to without supply shock
  - Space: 822 GWh (75 mcm)
  - Deliverability: 596 GWh/d (54 mcm/d)

Preliminary Safety Monitors + Indicative SM with 50 mcm/d supply shock



For information only



Next Steps

- Preliminary Safety Monitor & Firm Monitor Requirements paper – 31st May 2010
- Winter Consultation – late June 2010

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Feedback

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