

<b>PUKAKI FLATS STAGING PLAN OPTIONS</b>										
					DISCHARGE / ha		TOTAL DISCHARGE		TOTAL DISCHARGE (with dryland)	
Land Use	Abbr.	Area ID	Soil	Area ha	N (HD) kg /ha/yr	P kg /ha/yr	N (HD) kg N /yr	P kg P /yr	N (HD) kg N /yr	P kg P /yr
<b>DRYLAND LOSSES:</b>										
Simons Pass				3472	3.7	0.1	12761	218		
Simons Hill				2776	2.5	0.1	6951	259		
				6248			19712	477		
<b>IRRIGATED LOSSES:</b>										
<b>OPTION 1: Original Proposal: Immediate conversion of 4022 ha to DOFF</b>										
Dairy (Winter off)										
Simons Pass	DOFF	SPS_1A	PAW90/130	1307	20	0.6	26140	784	56541	1492
	DOFF	SPS_1B	PAW 30/60	980	18	0.5	17640	490		
Simons Hill	DOFF	SHS_3	PAW 30/60	1735	18	0.5	31230	868	38181	1127
Total Dryland (incl Mburn)										
Total:				4022			75010	2142	<b>94722</b>	<b>2619</b>
Pukaki Flats Nutrient Allocation:									132583	10958
Surplus on Pukaki Flats (after subcatchment reallocation):									<b>37861</b>	<b>8339</b>
<b>OPTION 2: Original Proposal: Immediate conversion of 4022 ha to SBFIN</b>										
Sheep & Beef										
Simons Pass	SBFIN	SPS_1A	PAW90/130	1307	13	0.5	16991	654	41512	1264
	SBFIN	SPS_1B	PAW 30/60	980	12	0.4	11760	392		
Simons Hill	SBFIN	SHS_3	PAW 30/60	1735	12	0.4	20820	694	27771	953
Total Dryland (incl Mburn)										
Total:				2715			32580	1086	<b>27771</b>	<b>953</b>
Pukaki Flats Nutrient Allocation:									132583	10958
Surplus on Pukaki Flats (after subcatchment reallocation):									<b>104812</b>	<b>10005</b>
<b>OPTION 3: Original Proposal: Immediate conversion of 4022 ha to SBIFIN</b>										
Intensive Sheep & Beef										
Simons Pass	SBIFIN	SPS_1A	PAW90/130	1307	14	0.2	18298	261	43799	675
	SBIFIN	SPS_1B	PAW 30/60	980	13	0.2	12740	196		

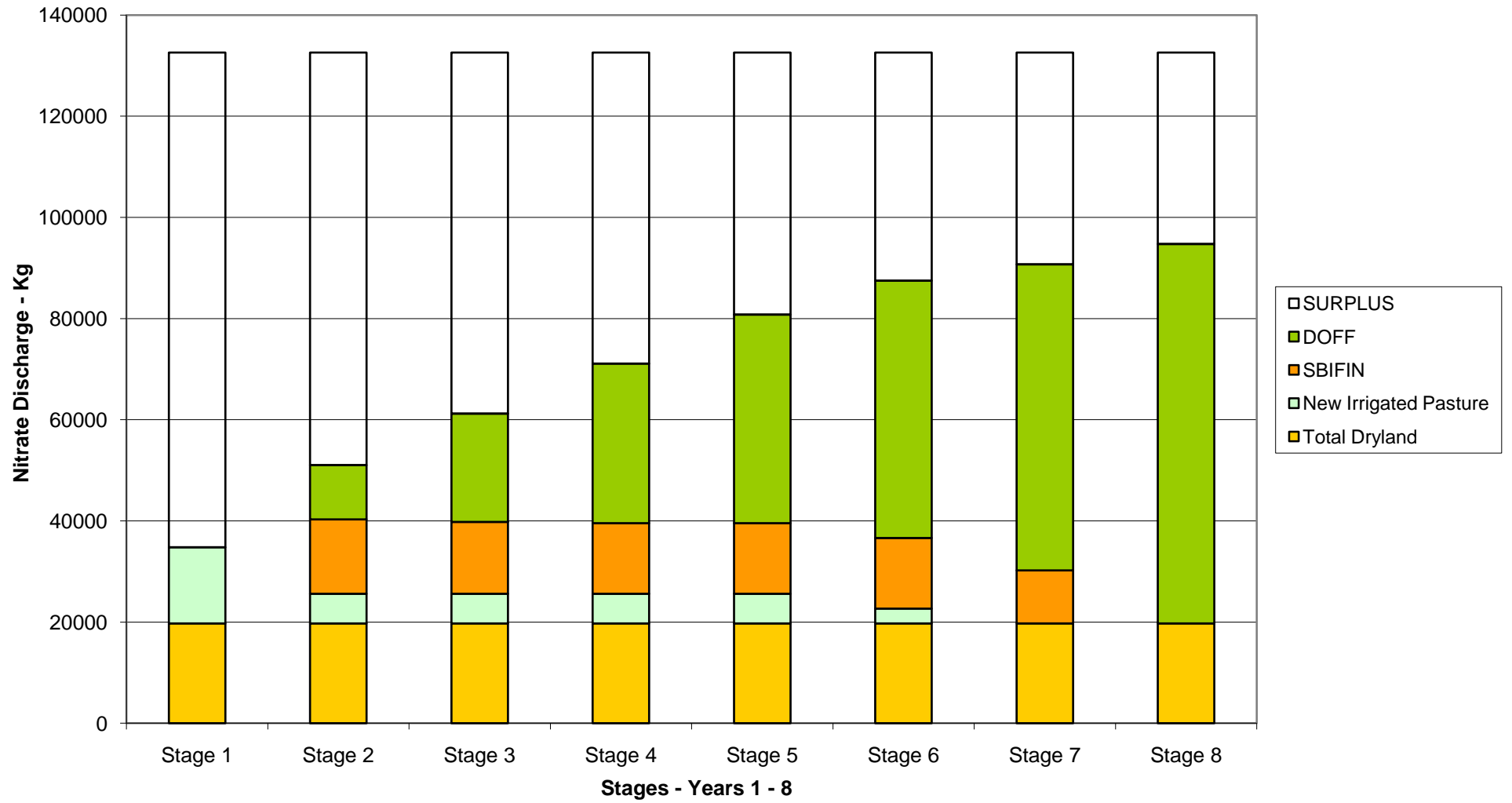
Simons Hill	SBIFIN	SHS_3	PAW 30/60	1735	13	0.2	22555	347	29506	606	
Total Dryland (incl Mburn)											
Total:				4022			53593	804	<b>73305</b>	<b>1281</b>	
Pukaki Flats Nutrient Allocation:									132583	10958	
Surplus on Pukaki Flats (after subcatchment reallocation):									<b>59278</b>	<b>9677</b>	
<b>OPTION 4: Stage 1: Year 1</b>											
<b>Stage 1: First Year Construct and irrigate 1608 ha new pivots; No stock</b>											
	DOFF		PAW90/130		20	0.6	0	0			
			PAW 30/60		18	0.5	0	0			
	SBIFIN		PAW90/130		14	0.2	0	0			
			PAW 30/60		13	0.2	0	0			
	Irrigated Pasture		PAW90/130	1307	9	0.6	11763	784			
			PAW 30/60	301	11	0.5	3311	151			
Total Dryland (incl Mburn)										19712	477
Total:				1608			15074	935	<b>34786</b>	<b>1412</b>	
Pukaki Flats Nutrient Allocation:									132583	10958	
Surplus on Pukaki Flats (after subcatchment reallocation):									<b>97797</b>	<b>9546</b>	
<b>OPTION 4: Stage 2: Year 2</b>											
<b>Stage 2: Second Year Construct and irrigate 536 ha new pivots; 1072 ha SBIFIN; 536 ha DOFF</b>											
	DOFF		PAW90/130	536	20	0.6	10720	322			
			PAW 30/60		18	0.5	0	0			
	SBIFIN		PAW90/130	771	14	0.2	10794	154			
			PAW 30/60	301	13	0.2	3913	60			
	Irrigated Pasture		PAW90/130		9	0.6	0	0			
			PAW 30/60	536	11	0.5	5896	268			
Total Dryland (incl Mburn)										19712	477
Total:				2144			31323	804	<b>51035</b>	<b>1281</b>	
Pukaki Flats Nutrient Allocation:									132583	10958	
Surplus on Pukaki Flats (after subcatchment reallocation):									<b>81548</b>	<b>9677</b>	
<b>OPTION 4: Stage 3: Year 3</b>											

<b>Stage 2: Third Year:</b>	<b>Construct and irrigate 536 ha new pivots; 1072 ha SBIFIN; 1072 ha DOFF</b>									
	DOFF		PAW90/130	1072	20	0.6	21440	643		
			PAW 30/60		18	0.5	0	0		
	SBIFIN		PAW90/130	235	14	0.2	3290	47		
			PAW 30/60	837	13	0.2	10881	167		
	Irrigated Pasture		PAW90/130		9	0.6	0	0		
			PAW 30/60	536	11	0.5	5896	268		
Total Dryland (incl Mburn)									19712	477
Total:				2680			41507	1126	<b>61219</b>	<b>1603</b>
Pukaki Flats Nutrient Allocation:									132583	10958
Surplus on Pukaki Flats (after subcatchment reallocation):									<b>71364</b>	<b>9355</b>
<b>OPTION 4: Stage 4: Year 4</b>										
<b>Stage 3: Fourth Year</b>	<b>Construct and irrigate 536 ha new pivots; 1072 ha SBIFIN; 1608 ha DOFF</b>									
	DOFF		PAW90/130	1307	20	0.6	26140	784		
			PAW 30/60	301	18	0.5	5418	151		
	SBIFIN		PAW90/130		14	0.2	0	0		
			PAW 30/60	1072	13	0.2	13936	214		
	Irrigated Pasture		PAW90/130		9	0.6	0	0		
			PAW 30/60	536	11	0.5	5896	268		
Total Dryland (incl Mburn)									19712	477
Total:				3216			51390	1417	<b>71102</b>	<b>1894</b>
Pukaki Flats Nutrient Allocation:									132583	10958
Surplus on Pukaki Flats (after subcatchment reallocation):									<b>61481</b>	<b>9064</b>
<b>OPTION 4: Stage 5: Year 5</b>										
<b>Stage 4: Fifth Year</b>	<b>Construct and irrigate 536 ha new pivots; 1072 ha SBIFIN; 2144 ha DOFF</b>									
	DOFF		PAW90/130	1307	20	0.6	26140	784		
			PAW 30/60	837	18	0.5	15066	419		
	SBIFIN		PAW90/130		14	0.2	0	0		
			PAW 30/60	1072	13	0.2	13936	214		
	Irrigated Pasture		PAW90/130		9	0.6	0	0		
			PAW 30/60	536	11	0.5	5896	268		

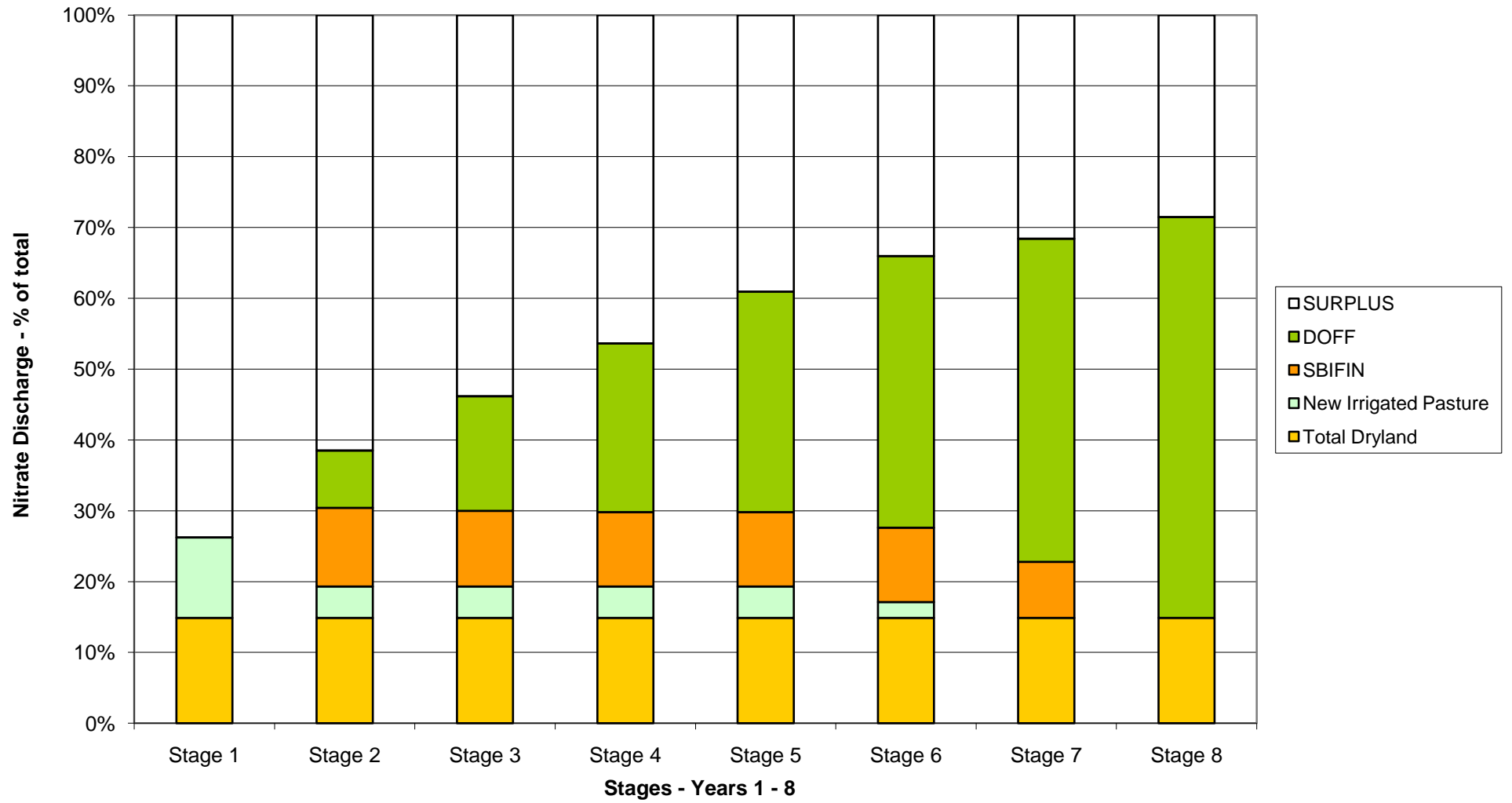
Total Dryland (incl Mburn)									19712	477
Total:			3752			61038	1685		<b>80750</b>	<b>2162</b>
Pukaki Flats Nutrient Allocation:									132583	10958
Surplus on Pukaki Flats (after subcatchment reallocation):									<b>51833</b>	<b>8796</b>
<b>OPTION 4: Stage 6: Year 6</b>										
<b>Stage 5: Sixth Year</b>	<b>Construct and irrigate 268 ha new pivots; 1072 ha SBIFIN; 2680 ha DOFF</b>									
	DOFF		PAW90/130	1307	20	0.6	26140	784		
			PAW 30/60	1373	18	0.5	24714	687		
	SBIFIN		PAW90/130		14	0.2	0	0		
			PAW 30/60	1072	13	0.2	13936	214		
	Irrigated Pasture		PAW90/130		9	0.6	0	0		
			PAW 30/60	270	11	0.5	2970	135		
Total Dryland (incl Mburn)									19712	477
Total:			4022				67760	1820	<b>87472</b>	<b>2297</b>
Pukaki Flats Nutrient Allocation:									132583	10958
Surplus on Pukaki Flats (after subcatchment reallocation):									<b>45111</b>	<b>8661</b>
<b>OPTION 4: Stage 7: Year 7</b>										
<b>Stage 6: Seventh Year</b>	<b>Construct and irrigate NIL ha new pivots; 804 ha SBIFIN; 3216 ha DOFF</b>									
	DOFF		PAW90/130	1307	20	0.6	26140	784		
			PAW 30/60	1909	18	0.5	34362	955		
	SBIFIN		PAW90/130		14	0.2	0	0		
			PAW 30/60	806	13	0.2	10478	161		
	Irrigated Pasture		PAW90/130		9	0.6	0	0		
			PAW 30/60		11	0.5	0	0		
Total Dryland (incl Mburn)									19712	477
Total:			4022				70980	1900	<b>90692</b>	<b>2377</b>
Pukaki Flats Nutrient Allocation:									132583	10958
Surplus on Pukaki Flats (after subcatchment reallocation):									<b>41891</b>	<b>8581</b>
<b>OPTION 4: Stage 8: Year 8</b>										
<b>Stage 7: Eighth Year</b>	<b>Construct and irrigate NIL ha new pivots; NIL ha SBIFIN; 4022 ha DOFF</b>									

	DOFF		PAW90/130	1307	20	0.6	26140	784		
			PAW 30/60	2715	18	0.5	48870	1358		
	SBIFIN		PAW90/130		14	0.2	0	0		
			PAW 30/60		13	0.2	0	0		
	Irrigated Pasture		PAW90/130		9	0.6	0	0		
			PAW 30/60		11	0.5	0	0		
Total Dryland (incl Mburn)									19712	477
Total:				4022			75010	2142	<b>94722</b>	<b>2619</b>
Pukaki Flats Nutrient Allocation:									132583	10958
Surplus on Pukaki Flats (after subcatchment reallocation):									<b>37861</b>	<b>8339</b>

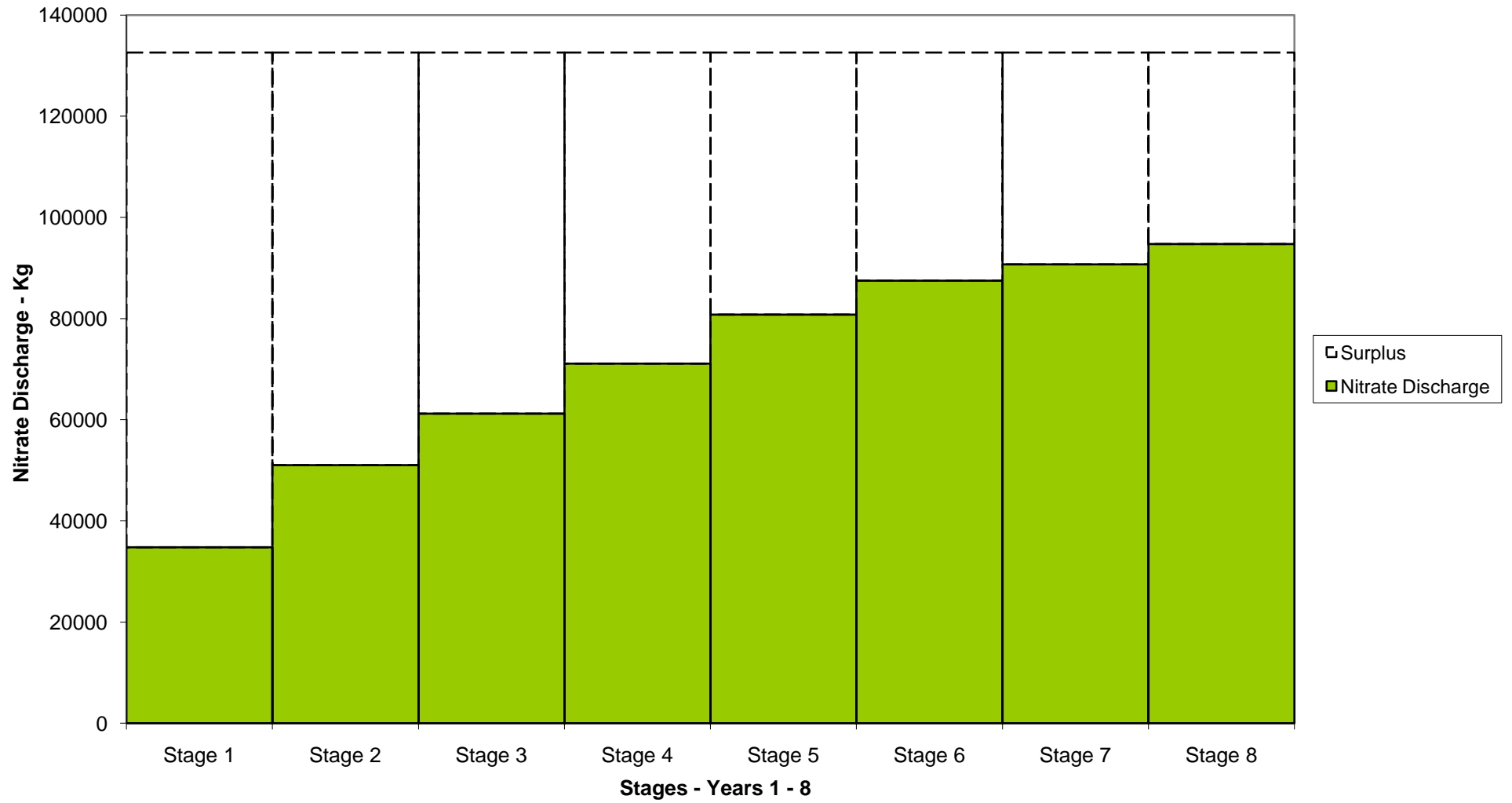
# PUKAKI FLATS STAGED DEVELOPMENT - NITRATE DISCHARGE



## PUKAKI FLATS STAGED DEVELOPMENT - NITRATE DISCHARGE (%)



# CONCEPTUAL MODEL OF PUKAKI FLATS STAGING PROPOSAL



**OPTION 4**

	Total Dryland	New Irrigated Pasture	SBIFIN	DOFF	SURPLUS	TOTAL
Stage 1	19712	15074	0	0	97797	34786
Stage 2	19712	5896	14707	10720	81548	51035
Stage 3	19712	5896	14171	21440	71364	61219
Stage 4	19712	5896	13936	31558	61481	71102
Stage 5	19712	5896	13936	41206	51833	80750
Stage 6	19712	2970	13936	50854	45111	87472
Stage 7	19712	0	10478	60502	41891	90692
Stage 8	19712	0	0	75010	37861	94722

Stage 1	34786	97797
Stage 2	51035	81548
Stage 3	61219	71364
Stage 4	71102	61481
Stage 5	80750	51833
Stage 6	87472	45111
Stage 7	90692	41891
Stage 8	94722	37861

**Pukaki Flats**  
**NDA**

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