

COST ANALYSIS FOR FIELD AT LOKER (rectangular 190x330 ft)		Turf	GROWTH RATE		DISCOUNT RATE																		
			1.025		1.050																		
LOKER SYNTHETIC TURF		TOTALS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10	YEAR 11	YEAR 12	YEAR 13	YEAR 14	YEAR 15	YEAR 16	YEAR 17	YEAR 18	YEAR 19	YEAR 20	
Initial Cost to Design and Install Turf at Loker in 2019		2,955,231	2,955,231																				
Lighting Installation (users pay electricity)		347,091	347,091																				
~10 yr Replace Carpet					-	-	-	-	-	-	-	1,172,676	-	-	-	-	-	-	-	-	-	1,638,616	
PV Rehab		1,337,499	719,922																				
<i>Operating Expenses (Toilets, Parking, Trash/Recycle)</i>		72,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	
<i>DPW/MOU Monthly Maintenance</i>		18,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	
<i>Annual Professional Maintenance</i>		122,400	6,800	6,800	6,800	6,800	6,800	6,800	6,800	6,800	6,800	-	6,800	6,800	6,800	6,800	6,800	6,800	6,800	6,800	6,800	6,800	
<b>PV Maintenance Totals</b>		<b>172,564</b>	<b>11,800</b>	<b>11,519</b>	<b>11,245</b>	<b>10,977</b>	<b>10,716</b>	<b>10,461</b>	<b>10,211</b>	<b>9,968</b>	<b>9,731</b>	-	<b>9,273</b>	<b>9,052</b>	<b>8,837</b>	<b>8,626</b>	<b>8,421</b>	<b>8,221</b>	<b>8,025</b>	<b>7,834</b>	<b>7,647</b>	-	
SUM PV Turf		<b>4,812,385</b>																					
LOKER GRASS FIELD		TOTALS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10	YEAR 11	YEAR 12	YEAR 13	YEAR 14	YEAR 15	YEAR 16	YEAR 17	YEAR 18	YEAR 19	YEAR 20	
Initial Cost to Install Grass at Loker in 2019		2,206,444	2,206,444																				
Lighting (none, leads to overuse on grass)		-																					
~9 year Grass Rehab												295,981									369,639		
PV Extra Main		344,384	190,792																				
<i>Operating Expenses (Toilets, Parking, Trash/Recycle)</i>		72,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	
<i>Irrigation</i>		80,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	
<i>Annual Maintenance Costs (mow, aerate, fertilizer, labor, paint)</i>		360,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	
<b>PV Maintenance Totals</b>		<b>414,004</b>	<b>28,000</b>	<b>27,333</b>	<b>26,683</b>	<b>26,047</b>	<b>25,427</b>	<b>24,822</b>	<b>24,231</b>	<b>23,654</b>	<b>3,299</b>	<b>22,541</b>	<b>22,004</b>	<b>21,480</b>	<b>20,969</b>	<b>20,470</b>	<b>19,982</b>	<b>19,506</b>	<b>19,042</b>	<b>2,656</b>	<b>18,146</b>	<b>17,714</b>	
SUM PV Grass		<b>2,964,833</b>																					
<b>COST RATIO</b>		<b>1.62316</b>	grass fields = cost of 1 turf field implies that the cost of <b>2.000</b> turf fields = the cost of <b>3.246</b> grass fields																				
<b>USAGE RATIO</b>		<b>FIELD DEFICIT</b>	<b>4,000</b>	hours of demand that need a field implies the need for <b>2.000</b> turf fields OR <b>10.000</b> grass fields																			
deficit or excess hours of demand that need a field in Wayland		4,000	total hours (annually) *based on actual 2017 field permits issued by Wayland Recreation for grass rectangular fields outside of the school day hours																				
hours/year 1 grass field can take (average)		400	hours on average (annually per field) * based on recommendations by Weston & Sampson and Gale Associates																				
hours/year 1 turf field can take (average)		2,000	hours on average (annually per turf) *based on actual 2017 field permits issued by Wayland Recreation for WHS Stadium Turf outside of school day hours																				
<b>COST/USAGE CONCLUSIONS</b>																							
20 year cost to meet the field need in Wayland with TURF		<b>9,624,770</b>	= cost of turf x # turf fields needed \$ <b>481,238.51</b> annually																				
20 year cost to meet the field need in Wayland with GRASS		<b>29,648,325</b>	= cost of grass x # of grass fields needed \$ <b>1,482,416.25</b> annually																				