

Annex A

Work Programme

WBS Path	Activity	Activity Name	Dur	Start	Finish	Phase	Predecessor Details	Successor Details	2018		2019		2020		2021		2022		2023		
									Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
332	SA2.5	Construction (Initial Works)	1163	12-Apr-18	07-Jun-21	756															
333	SA2.5.02	Advance Works & Site Establishment	1148	12-Apr-18	02-Jun-21	35															
334	SA2.5.02.01	Site Establishment & Mobilization	333	12-Apr-18	15-May-19	820															
335	5.02.01	62-1000 Site Mobilization for Parts X1 & X2	30	31-Dec-18	20-Jan-19	820															
336	5.02.01	62-1100 Site Mobilization for Parts X3, X4 & X5	30	12-Apr-18	11-May-18	1063															
337	5.02.01	62-1200 Temporary Office for Employer / ERI/C	60	10-Oct-18	08-Dec-18	0															
338	5.02.01	62-1300 Hoarding and Fencing Works	40	30-Jan-19	10-Mar-19	820															
339	SA2.5.02.02	Site Survey & Investigation Works for Parts X1 & X2	50	31-Dec-18	18-Feb-19	840															
340	5.02.02	62-1400 Condition Survey	25	31-Dec-18	24-Jan-19	840															
341	5.02.02	62-1500 Topographic Survey	20	31-Dec-18	19-Jan-19	845															
342	5.02.02	62-1600 Site Inspection, Review of Condition Survey Report	25	25-Jan-19	18-Feb-19	840															
343	SA2.5.02.03	Site Survey & Investigation Works for Parts X3, X4 & X5	58	12-Apr-18	31-May-18	1103															
344	5.02.03	62-1700 Condition Survey	25	12-Apr-18	06-May-18	1103															
345	5.02.03	62-1800 Topographic Survey	20	12-Apr-18	01-May-18	1108															
346	5.02.03	62-1900 Site Inspection, Review of Condition Survey Report	25	07-May-18	31-May-18	1103															
347	SA2.5.02.04	Environmental Monitoring	975	02-Oct-18	02-Jun-21	35															
348	5.02.04	62-2000 Installation of Monitoring Stations & Waits (SP & DDI)	120	02-Oct-18	20-Jan-19	0															
349	5.02.04	62-2100 Installation of Monitoring Stations & Waits (SP & DDI) on Butress Wall	120	02-Oct-18	20-Jan-19	0															
350	5.02.04	62-2200 Conduct Baseline Monitoring for Construction (one month)	30	01-Dec-18	30-Dec-18	0															
351	5.02.04	62-2300 Conduct Baseline Monitoring for Operation (one year)	365	03-Jun-20	02-Jun-21	35															
352	SA2.5.03	Civil Engineering Works	748	13-Jan-19	29-Jan-21	634															
353	SA2.5.03.01	Butress Wall	475	08-Apr-19	03-Jun-20	48															
354	5.03.01	63-1000 Section w/d, SENT	300	13-Apr-19	06-Feb-20	96															
355	5.03.01	63-1100 Characterise SENT Landfill Gas Pipe	48	07-Feb-20	23-Mar-20	96															
356	5.03.01	63-1200 Section at Cell 4	400	02-Mar-19	04-Apr-20	83															
357	5.03.01	63-1300 Install Landfill Gas Pipe on Butress Wall	75	05-Apr-20	18-Jun-20	83															
358	SA2.5.03.01	Landfill Cell 1	503	13-Jan-19	29-May-20	214															
359	5.03.01	63-1400 Earth bund (Eastern)	90	04-Aug-19	01-Nov-19	9															
360	5.03.01	63-1500 Earth bund (Southern)	90	26-Apr-19	24-Jul-19	314															
361	5.03.01	63-1600 Earth bund (Western)	90	13-Jan-19	12-Apr-19	417															
362	5.03.01	63-1700 Interfill bund (Cell 1G)	75	13-Jan-19	28-Mar-19	432															
363	5.03.01	63-1800 Site Formation	90	13-Jan-19	12-Apr-19	217															
364	5.03.01	63-1900 Pump Station (PS#1X)	45	13-Apr-19	27-May-19	507															
365	5.03.01	63-2000 Lining Works	135	02-Nov-19	15-Mar-20	214															
366	5.03.01	63-2100 Protective Stone Laying & Leachate Collection Pipe	75	16-Mar-20	29-May-20	214															
367	5.03.01	63-2200 Install Leachate Force Main	75	25-Jul-19	07-Oct-19	449															
368	5.03.01	63-2300 Install Landfill Gas Pipe on earth bund	55	03-Nov-19	26-Dec-19	258															
369	5.03.01	63-2400 Leachate Pipe Connection (Cell 1 to LTP)	30	09-Mar-20	07-Apr-20	266															
370	SA2.5.03.01	Landfill Cell 4	30	09-Jul-20	07-Aug-20	144															
371	5.03.01	63-2500 Provide Temporary Leachate Pipe on Cell 4 Area	30	09-Jul-20	07-Aug-20	144															
372	SA2.5.03.02	Drainage - Surface Run-Off	740	16-Jan-19	31-May-21	859															
373	5.03.02	63-2600 Construct Cut-Off Channel 12A	60	16-Jan-19	18-Mar-19	9															
374	5.03.02	63-2700 Construct Cut-Off Channel 12A to DP6	20	17-Mar-19	05-Apr-19	9															
375	5.03.02	63-2800 Diversion from Existing Trapezoidal Channel into Channel 12A	20	06-Apr-19	25-Apr-19	9															
376	5.03.02	63-2900 Removal of Existing Trapezoidal Channel along Eastern Bund	30	26-Apr-19	25-May-19	9															
377	5.03.02	63-3000 Cut-Off Channel 04 Diversion to Cut-Off Channel 11-2	45	16-Jan-19	01-Mar-19	83															
378	5.03.02	63-3100 Cut-Off Channel XS on Butress Wall, Cell 4, Cell 3	90	05-Apr-20	03-Jul-20	289															
379	5.03.02	63-3200 Temporary Diversion Cut-Off Channel XS to 12A	20	04-Jul-20	23-Jul-20	289															
380	5.03.02	63-3300 Culvert XS (5m long) & Perm Connection of Cut-Off Channel XS	30	26-Dec-20	24-Jan-21	134															
381	5.03.02	63-3400 Construct Perimeter Channel XS on Eastern Bund & Southern Bund of Cell 1	50	02-Nov-19	21-Dec-19	249															
382	5.03.02	63-3500 Construct Perimeter Channel XS on Eastern Bund of Cell 2	50	20-Feb-20	08-Apr-20	189															
383	5.03.02	63-3600 Construct Perimeter Channel XS Eastern Bund of Cell 3	50	06-Jun-20	26-Jul-20	129															
384	5.03.02	63-3700 Culvert XS (25m long) at Cell 1 Southern Bund	75	25-Jul-19	07-Oct-19	1314															
385	5.03.02	63-3800 Perimeter Channel (OSB) at Cell 1 Southern & Western Bund	45	25-Jul-19	07-Sep-19	1344															
386	5.03.02	63-3900 Drop Inlet & Culvert (OS) - 21m long	180	29-Jul-20	24-Jan-21	129															
387	5.03.02	63-4000 Sediment Trap (ST)	180	29-Jul-20	24-Jan-21	129															
388	5.03.02	63-4100 Dual Culvert 14m long (connect to DP4)	180	29-Jul-20	24-Jan-21	129															
389	SA2.5.03.02	Drainage - Groundwater	200	26-May-19	11-Dec-19	269															
390	5.03.02	63-4200 Construct Groundwater Collection Pipe along Cells X1 & X2 Eastern Bund	70	26-May-19	02-Aug-19	9															
391	5.03.02	63-4300 Construct Groundwater Collection Pipe along Cell X3 Eastern Bund	50	04-Aug-19	22-Sep-19	159															
392	5.03.02	63-4400 Construct Groundwater Collection Pipe along Interfill Bund X2/X3	50	25-Sep-19	14-Nov-19	209															
393	5.03.02	63-4500 Construct Manhole MH-X1	30	13-Nov-19	11-Dec-19	209															
394	SA2.5.03.03	Utilities - Distribution within New Infrastructure Area	391	11-Aug-19	04-Sep-20	276															
395	5.03.03	63-4600 Power Supply HV Works (Transformer & HV Switchgear)	5	30-Jun-20	04-Jul-20	0															
396	5.03.03	63-4700 Power Distribution, LV Power Supply Works	2	05-Jul-20	06-Jul-20	0															
397	5.03.03	63-4800 Sewerage (Collection to LTP)	60	07-Jul-20	04-Sep-20	271															
398	5.03.03	63-4900 Sewerage (Discharge to Site Boundary)	60	07-Jul-20	04-Sep-20	271															
399	5.03.03	63-5000 Lighting Provision	30	07-Jul-20	05-Aug-20	6															
400	5.03.03	63-5100 Fire Services	115	02-Mar-20	04-Jul-20	2															
401	5.03.03	63-5200 Construct Firewater (Fresh & Salt)	110	03-Mar-20	04-Jul-20	338															
402	5.03.03	63-5300 Telecom & Network	45	11-Aug-19	24-Sep-19	622															
403	5.03.03	63-5400 Gas Network (LFG to LTP)	15	22-Jun-20	06-Jul-20	176															
404	SA2.5.03.04	Utilities - Works Associated with Utilities Undertakes	703	27-Feb-19																	

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									Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
508	SA2.6.03	Chd Engineering Works	1269	02-Nov-19	13-Apr-23	30																				
510	SA2.6.03.1	Landfill Cell 2	449	02-Nov-19	23-Jan-21	810																				
511	6.03.2	63-1000 Earth bund (Eastern)	110	02-Nov-19	19-Feb-20	9	11-1100 FS, 23-2500 FS, 63-4200 FS, 63-1400 FS, 63-2800 FS	63-3000 FS, 63-1500 FS, 63-1800 FS, 63-1900 FS, 63-2000 FS, 63-2100 FS, 63-2200 FS, M12, 1 FS, 50, M12, 2 FS, 63-1100 FS																		
512	6.03.2	63-1100 Earth bund (Western)	110	20-Feb-20	08-Jun-20	84	11-1100 FS, 23-2500 FS, 63-1800 FS, 63-1400 FS, 63-3000 FS	63-1400 FS, 63-1500 FS, 63-1700 FS, 63-3500 FS, 63-3000 FS, 63-1200 FS																		
513	6.03.2	63-1200 Intercell bund (Cell 2/3)	90	09-Jun-20	06-Sep-20	734	11-1100 FS, 23-2500 FS, 63-1800 FS, 63-1400 FS, 63-3000 FS, 63-1100 FS	63-1500 FS																		
514	6.03.2	63-1300 Site Formation	75	02-Nov-19	15-Jan-20	14	11-1100 FS, 23-2500 FS, 63-1800 FS, 63-1400 FS	63-1400 FS, 63-4200 FS																		
515	6.03.2	63-1400 Pump Station (PS42X)	45	09-Jun-20	23-Jul-20	84	63-1500 FS, 63-1100 FS	63-1600 FS, 63-1700 FS																		
516	6.03.2	63-1500 Living Works	90	01-Oct-20	29-Dec-20	710	41-1500 FS, 63-1000 FS, 63-1100 FS, 63-1200 FS	63-1900 FS, M12, 3 FS, 63-2400 FS																		
517	6.03.2	63-1600 Protective Stone Laying & Leachate Collection Pipe	25	30-Dec-20	23-Jan-21	810	63-1500 FS, 41-1500 FS, 63-1400 FS	32-1800 FS, M12, 3 FS																		
518	6.03.2	63-1700 Install Leachate Force Main	75	24-Jul-20	06-Oct-20	84	63-1100 FS, 41-1500 FS, 63-1400 FS	54-2800 FS, M12, 3 FS																		
519	6.03.2	63-1800 Install Landfill Gas Pipe on earth bund	35	20-Feb-20	26-Mar-20	168	41-1500 FS, 63-1000 FS	54-4000 FS, M12, 3 FS																		
522	SA2.6.03.3	Landfill Cell 3	714	20-Feb-20	02-Feb-22	435																				
521	6.03.3	63-1900 Earth bund (Eastern)	110	20-Feb-20	08-Jun-20	9	11-1100 FS, 63-4200 FS, 63-1000 FS, 63-4000 FS, 63-2800 FS, 63-4200 FS	63-3300 FS, 63-3600 FS, 63-2400 FS, 63-2700 FS, M12, 1 FS, 50, M12, 2 FS, 63-2000 FS, 45, 63-2200 FS																		
522	6.03.3	63-2000 Earth bund (Western)	110	25-Apr-20	12-Aug-20	19	11-1100 FS, 63-1000 FS, 63-1900 FS, 45	63-2300 FS, 63-2400 FS, 63-2600 FS, 63-3700 FS, 63-1100 FS, 45																		
523	6.03.3	63-2100 Intercell bund (Cell 3/4)	105	29-Jun-20	11-Oct-20	789	11-1100 FS, 63-1000 FS, 63-4200 FS, 63-2000 FS, 45	63-2400 FS																		
524	6.03.3	63-2200 Site Formation	75	09-Jun-20	23-Aug-20	9	11-1100 FS, 63-1000 FS, 63-1900 FS	63-3300 FS																		
525	6.03.3	63-2300 Pump Station (PS43X)	45	23-Aug-20	16-Oct-20	9	63-2200 FS, 63-2000 FS	63-2500 FS, 63-2600 FS																		
526	6.03.3	63-2400 Living Works	100	01-Oct-21	08-Jan-22	435	41-1500 FS, 63-1900 FS, 63-2000 FS, 63-2100 FS, 63-1500 FS	63-2500 FS, M12, 3 FS																		
527	6.03.3	63-2500 Protective Stone Laying & Leachate Collection Pipe	25	09-Jan-21	03-Feb-21	435	63-2400 FS, 41-1500 FS, 63-2300 FS	32-1700 FS, M12, 3 FS																		
528	6.03.3	63-2600 Install Leachate Force Main	75	07-Oct-20	20-Dec-20	9	63-2000 FS, 41-1500 FS, 63-2300 FS	53-2100 FS, 40, 54-2800 FS, M12, 3 FS																		
529	6.03.3	63-2700 Install Landfill Gas Pipe on earth bund	35	09-Jun-20	13-Jul-20	58	41-1500 FS, 63-1900 FS	54-4000 FS, M12, 3 FS																		
530	SA2.6.03.4	Landfill Cell 4	584	07-Sep-21	13-Apr-23	30																				
531	6.03.4	63-2800 Remaining Portion of Buttress Wall	120	07-Sep-21	04-Jan-22	494	62-1000 FS																			
532	6.03.4	63-2900 Earth bund (Western) incl. MSE Wall	120	07-Sep-21	04-Jan-22	239	62-1000 FS	63-3000 FS, 63-3100 FS, 63-3200 FS, 63-3400 FS, 63-3800 FS, 63-3000 FS, 63-4100 FS, 63-4100 FS, 55-40, M, 6, 6 FS, 60, M, 9, 7 FS, 30, M, 9, 8 FS																		
533	6.03.4	63-3000 Site Formation	120	05-Jan-22	04-May-22	239	62-1000 FS, 62-1100 FS, 62-1200 FS, 63-2900 FS	63-3100 FS																		
534	6.03.4	63-3100 Pump Station (PS44X)	45	05-May-22	18-Jun-22	239	63-3000 FS, 63-2900 FS	63-3300 FS, 63-3400 FS																		
535	6.03.4	63-3200 Living Works	135	01-Oct-22	12-Feb-23	0	41-1500 FS, 63-2900 FS	63-3300 FS, M12, 6 FS																		
536	6.03.4	63-3300 Protective Stone Laying & Leachate Collection Pipe	60	13-Feb-23	13-Apr-23	0	41-1500 FS, 63-3200 FS, 63-3100 FS	12-1900 FS, 32-1800 FS, M12, 6 FS																		
537	6.03.4	63-3400 Install Leachate Force Main & Remove Temporary Leachate Pipe	30	19-Jun-22	18-Jul-22	269	41-1500 FS, 63-2900 FS, 63-3100 FS	12-1900 FS, 32-1800 FS, M12, 6 FS																		
538	SA2.6.03.5	Drainage - Surface Run-Off	790	16-Jan-20	03-Feb-22	464																				
539	6.03.5	63-3500 Perimeter Channel (X0A) at Cell 2 Western Bund	15	09-Jan-20	23-Jun-20	1054	63-1100 FS	12-1900 FS																		
540	6.03.5	63-3600 Perimeter Channel (X10A) at Cell 2 Western Bund	30	09-Jun-20	08-Jul-20	1029	63-1100 FS	63-4000 FS																		
541	6.03.5	63-3700 Perimeter Channel (X10A) at Cell 3 Western Bund	30	13-Aug-20	11-Sep-20	964	63-2000 FS	63-4000 FS																		
542	6.03.5	63-3800 Perimeter Channel (X10A) at Cell 4 Western Bund	20	05-Jan-22	24-Jan-22	464	63-2900 FS	63-4000 FS																		
543	6.03.5	63-3900 Perimeter Channel (X10C) at Cell 4 Western Bund	15	05-Jan-22	19-Jan-22	469	63-2900 FS	63-4000 FS																		
544	6.03.5	63-4000 Connection to Existing OP3	10	25-Jan-22	03-Feb-22	464	63-3900 FS, 63-3900 FS, 63-3700 FS, 63-3800 FS	12-1900 FS																		
545	6.03.5	63-4100 Remove Cut-Off Channel C-7 at bottom of Buttress Wall	30	09-Jun-21	08-Jul-21	419	63-2900 SS, 40	63-3000 FS																		
546	6.03.5	63-4200 Temporary Channel (XT) at SENT Infrastructure Area	30	16-Jan-20	14-Feb-20	14	63-1300 FS	63-1900 FS, 63-2100 FS																		
547	SA2.6.03.6	Drainage - Ground Water	85	07-Sep-21	30-Nov-21	529																				
548	6.03.6	63-4300 Construct Temporary Channel (TC-1), from MH-1 to Existing LIC-625	60	07-Sep-21	20-Oct-21	529	23-1900 FS, 11-1300 FS, 62-1000 FS	63-4400 FS																		
549	6.03.6	63-4400 Divert OCV at MH-1 to TC-1	5	27-Oct-21	31-Oct-21	529	63-4300 FS	63-4500 FS, M, 9, 9 FS																		
550	6.03.6	63-4500 Reconnect of GWP across Cell 4	30	01-Nov-21	30-Nov-21	529	62-1100 FS, 62-1200 FS, 63-4400 FS	12-1900 FS																		
551	SA2.6.03.8	Utilities - Works Associated with Utilities Undertakers	255	15-Nov-20	27-Jul-21	655																				
552	SA2.6.03.8.1	CLP	210	20-Dec-20	27-Jul-21	655																				
553	6.03.8.U1	63-4600 LFG Generator Ongrid Testing	180	30-Dec-20	27-Jun-21	655	32-2000 FS, 12-1200 FS, 64-4000 FS	63-4700 FS																		
554	6.03.8.U1	63-4700 LFG Generator Ongrid Inspection & Verify	30	28-Jun-21	27-Jul-21	655	63-4600 FS	12-1900 FS																		
555	SA2.6.03.8.2	TownGas	55	15-Nov-20	08-Jan-21	855																				
556	6.03.8.U2	63-4800 Laying Gas Mains (from LFG to Town Gas PP)	45	15-Nov-20	29-Dec-20	855	64-4000 FF	63-4900 FS																		
557	6.03.8.U2	63-4900 Gas Meter Relocation & Connection at LFG	10	30-Dec-20	08-Jan-21	855	63-4800 FS, 64-4000 FS	12-1900 FS																		
558	SA2.6.04	Building & E&M Works	661	01-Oct-19	22-Jul-21	660																				
559	SA2.6.04.C	Part X1 Area C	661	01-Oct-19	22-Jul-21	660																				
560	SA2.6.04.C.1	LFG Treatment Plant	661	01-Oct-19	22-Jul-21	660																				
561	6.04.C.02	64-1000 (4000) Storage 01 C Relocation	15	06-Jul-21	02-Jul-21	660	32-1500 FS	12-1900 FS																		
562	6.04.C.02	64-1100 Absorption Chiller (Optional)	90	01-Oct-19	29-Dec-19	1231	54-2200 FS	12-1900 FS																		
563	SA2.6.08	Landscaping Works	613	01-Apr-19	03-Dec-20	891																				
564	SA2.6.08.1	SENT Area - Tree Removal & Transplanting	240	01-Apr-19	26-Nov-19	1264																				
565	6.08.1	68-1000 Access trees condition and select for transplanting	30	01-Apr-19	03-Apr-19	1264	14-1300 FS	68-1100 FS, 68-1200 FS, 68-140																		