

¶` cwi m†i cwi tek I mvgwRK evavi gj`vqb Ges cwi tek I mvgwRK
e`ve vcbvi Kibxq e`ve vcbv|

evsjv†`k

XvKvi cwi tek Ges cwb cKí Khwbevnx mvi ms†¶c

cwi tek Awa`Bi

Ges

vbxq miKwi c†Kškj Awa`Bi

†g, 2010

1| fllgKv t

evsjv`tki RvZxq WRWwCoi kZKiv 40 fVMB XvKvi eZgVb WRWwC Gi Abi“c Ges Gi RbmsL`v ewlK cvq 9 kZvsk nvti ewx cvt”Q| XvKvi 12 wgwjqb RbmsL`v ewxi nvi Abhvqx 2025 mvj bvMv` cvq w0,b nte| XvKvi Pwiw`K b`x tewoZ Ges Avš:msthvM Lvj| itqtQ hvKt tK` Kti Mto DvVtQ bMi Rxb| MZ 20 eQtii mgK`xK AwbqwgZ wkí KvLvbvi ewx Mvg t`K kniti AvMgb b`xi wfZtiii RvqMvq ctek fvimvg`nxb AeKvVv`gv cWZôwbK ms`v ,vj`vq-`wqZ cwb Øviv Ave× AwjMvj ,bMZ w`K m`nRbK, ciitekMZ wbgqZwšK `ej e`vcbvi KgKZvi Rjvkqti Ki msMn htó bq| cvMjvZ tKej gvî GKU cq:w@vkb e`vcbv hvi eZgVb avib flgZv Achvß cq:cevn c×Zi µUi Rb Ges wKQ wkí KvLvbvi eR w@vkb c×Z vKv t`Zi tgvUi Dci mKj gvbti eR, wkí eR Ges jflwAK cvYx dvg, GQov Ub Ub KxUbvkK I mvtii e`envi hvi cevn Rjvkq ,vjZ wgtQ cwi× QovB Ges Gti wKQ Ask gvU tf` Kti gvUi wbtPi cwb `lZ Kiti Gei dtj gvUi wbtPi cwbi `lb gvîv ewx cvt”Q Ges b`x I Lvji AtbK AskB kni Ges Gi Pwi`K `lZ nt”Q| wetkl Kti ewoM½v I kxZj flv b`xi cvYx Rxb hvctb gZ i@ tgsmtg| hv Rbmvarihti gtb `Z e`vKfvte Qioq citQ Ges ivRbxwZMZ fvte D”P chvtq AvNvZ nvbtQ| wkíRvZMZ `lb 60% Dcti cvYxMZ `lhti tptq| XvKv RjR AÂj ,vjZ D`vnib mn AcikwíZ wkí GjvKv Ae`vb eo b`x Zxti nlqvZ `lhti NbZ e`vK nvti ewx cvt”Q|

2| cKííi eYbv t

XvKvi cwitek I cwb maw` cKí ((DEW) hv BDGm 70 wgwjqb IDA Fb`vhti cKí MOEF (Ministry of Environment & Projects) GB Qq eQtii cvgvY” cKííi Dtík” wkí GjvKvi eR w@vkb hv wkí ,”Q t`K evQvBKZ enEi XvKvi Rjvkq mg× GjvKv ,vjK Kwimwi I A\_MZ fvte ci`vi Kti `lb g³ Kiv GKU gWtji gva`tg cwitek Aia`Bi Dctiv³ cKííi `vq-`wqZ, t`Lvibv I cwitek iflb wbgq gwbbq wbbqvQ| `vbxq, miKvi cKškj Aia`Bi wkí `lbg³ Ges 3U wkí ,”Q evQvB Kti Zvi WRvBb wbgvY I Kvhmug GKB mvavib eR w@vkb c×Z wbgv Kiteb|

cKí cet

cKííi WRvBb `Z AMmi Kivi Rb” mtev”P mweav Ges cwi`vi Ab`vb cKííi MvbgjK maw`b 2 wU cte mgvß Kitz nte 6 eQtii cKí ZiwbZ Kivi Rb” mtev”P bgbxqZv Ges mwVK Drmnv c`vb Ges Kg-cwiKíbv AMmi Kitznte `tUv cwicb cte 6 eQtii DtaY| c_g ce AvtjwKZ Kitz nte mwVK Drmnv Ges cwZôwbK KvVtgvZ| Zv Qov mtev”P chteflb I cwitek msi flt b gZ `tq Ges `lb g³ Kv cYvjxi e`vL`v Kitz nte| PijZ AwfÁZv t`K c\_g ce ev`ewqZ Kitz nte htzi mnvZ chteflY KvVtgvMZ wkflv Kv cYvjx Zte tmUvB nte mwVK WRvBhti e`vL`wqZ mBwUc w0Zxq cte| hvZ vKte WRvBb, wbgv Ges KvKix

ʍBʍUʍc hʍnʍ GKʍU gʍ c⁻ʍZi aʍiʍ ARʍb (ʍKʍe 2-3 eQʍi) | cʍei ʍeʍbʍqʍM nʍe cKí
 ʍRʍBb Øʍiʍ `i KʍiKʍi Dci ʍBʍUʍc Aʍi_K fʍʍe MʍY ʍhʍM⁻Zi gʍʍS |

cKí GjvKv t

cK†íi c_‡g Avia nte 3wU Ask XvKvi enEi 9wU `wIZ Rjvkq mg× GjvKv‡Z hv bvivqbMÄ Ges MvRxcí †cŠimfvq| Gme bgbv „”Q „wjí 75% AwaK wK†íi hv †cvkV Kkí, †aŠZ Kib Ges is Kib cK†íi Awa‡b, G „‡jv „”Q „wjí mgZvqb Ges mviv‡`k e`vcK Drmnv c`v‡b weKí `vb mg‡ni we‡kl‡bi Dci wbfí K‡i| MvRxcí n‡jv cv\_wgK fv‡e wPwYz wmBwUwc KvKix `vb| MvRxcí wefv‡Mi AvqZb 1,741.53 eM wK‡jwvgUvi Ges gqgbwmsn Ges wK‡kviMÄ wefvM DËi w`‡K| XvKv-bvivqbMÄ Ges biwmsw`, `w¶‡Y biwmsw` c‡e Ges XvKv I Uv‡vBj wefvM cwđg w`‡K| gj b`x „wj n‡”Q epcĤ, wKZj¶v, ZivM, esik, evj I evbvi|

Figure-1 G MvRxc:ii gvbPÎ †`Lvþbv nþqþQ, hvþZ cv\_wgK wmbWUic Gi `vb mgn wPwÝZ Kiv nþjv| cwitek Ges mvgwRK gj`vqþbi Drm mxigZ cwitek I mvgwRK gj`vqb Ges cwitek I mvgwRK e`e`vcbvi KvVvþgv MVb KþiþQ cwitek Awa`ði (DOE) Ges `vbxq miKvi cþKškj Awa`ði (LGED), KvHKix ms`v_wj XvKv cwitek I cwib mǎú` cKí mgn (DEW). Z\_wic wWRvBb Ges cwí`vi Drcv`þbi mwVK Ae`vb Ges wmbWUic Gi Ae`vb GLbl wbaWiZ nqib| Ges Gme cvlqv hvþe 1g cþei tkþl| gj cKí cfuZþZ mǎúbfvþe cwitek I mvgwRK cfvþei gj`vqb Kiv hvþe bv| mxigZ ESA mieivn Kiþe e`vcK weþklb Kiþe gj `vb_wji Ges ESMF eYbv KiþZ Kgcšv I cxwZ hv Abmib KiþZ cKí mǎúv`bv Ges chvß cwitek I mvgwRK Ae`vb Drcb nþe|

3| Kgcšv, AvBb-msμvš Ges ckvmwBk KvVv†gv t

cvm1/2K miKviX Kgcšvmgn, Kgmgn, wbgqvejX Ges cwiKíbv mgn cwi#ekMZ we#ePbvi , i"Z
 ▾vfweK ewEgjK ▾ ▾ I wbi vcE Ges Rig AwaMnb cKí wbgv#bi AbgwZ wbf i K#i K#qKwU
 RvZxq cgvYc#î |

enËi cwi†ekZ KvHKix evsjv†`†ki AvBb mgn t

- cwiɬek msiɽb Kg (1995) hɽnvi gɽaː cwiɬekMZ c_ ɽɽɬ`k hv cwiɬek `lb ɽbqšb l Kgɽbv hvq msiɽb l cwiɬek Dbqb Ges Bnvi Øviv cwiɬek cwiːQb mb` cĭ (ECC) c`vb Kɬi cKÍ Dbqɽbi KvɽR

11. cWZwôwbK weIqt (Institution Aspects)

cwi#ekMZ ¶Zv wbi"cb Ges c#qvRbxq Rbe j t

cwi`tek Awa`βi`K c`Ë AvBbMZ ¶gZv c`qvm I ev`vevq`b, cwi`tekMZ eva`evaKZv, `IY
gubUwis -G cwiZôwbK m¶gZv ew`x`Z Kwimix mnvqZv c`vb Ab`w``K GjwRBiW GKiu c_g
mvixi miKvix cwiZôvb hvi cwiZ cwiKíbv i g`a` cwi`tek wbi`cb Ašf³ i`q`Q hv AvBwWG cKí
ev`evqb I weke`vsK wbivcËv bxixi Abi/c|

thnZ GB cR±Ui G K`vUvMii GLv#b `vbxq miKvi cY tggq#` GKRb AvŠRvZK cwi#ek we#klÁ w#qM Ki#Z n#e| GLv#b D#jL th, K#úv#bU-2 Gi AvIZvqGKU CP-Consultant firm w#qM c`vb Ki#Z n#e hvi KvR (1) GKU cwiQb AwU e`e`v Ges KvLvbi gj ce cwi#kvb c×Z ev`evqb (2) DBO Pw<sup>3</sup> i AvIZvq w#BwUc Acv#iUi Zv#`i `#j GKRb cwi#ek we#klÁ `iKvi n#e|

mvgwRK w#v#E`v m#jgZv ew× Ges c#qvRbxq Rbejt

Aw"QvKZ cbevb bxZ cinvi Ki#Z n#e Kvib KgmPx mgn w#BwUc ^Zii mv#_ IZmZfv#e RvZ Gi AvÁvq wZbU Ae`vb ev`vqx Rvg dmj Ges AA`vb` AvqgjK KgmPx| thnZ GB gú#Z cK#í `vb wPwYZ nq bvB tmnZ cKí ev`evqbKvix cZôvb eZgv#b Rvg AwMnY I cbevb bxZGvjv Ges GmAvBG cbq#bi KvR K#i tdj#Z cv#i| cvkv#k vek e`vs#Ki tbZ#Zi `vbxq miKvi c#K#kj Aw`Bi GKRb tmv#vj tmdMw t`úkwió w#qM `vb Ki#Z cv#ib| me#k#l cwi#ekMZ w`K we#Pbv mv#c#` CP- Consultant firm Ges CETP Operator w#qM c`vb Kiv|

Other project Arrangements (cK#í i Ab`vb` e`e`v)

DOE Ges LGED, cKí ev`evqb BDw#Ui `wq#Z _vK#e ESMF h_vh_ ev`evqb Ges cbevb GKkbcvb ev`evqb (RAP) Ges h_vh_ miKvix cZôvb I Ask`vixM#Yi mv#\_ thvM#hM mgišZ cwi#ek I mvgwRK we#kl#bi cvkv#k djcm cKí cbqb I ev`evqb Gi c#qvRbxq kZ ,i"ZcY c×Z n#jv Rb Ask MnY|

ESMF Gi Rb` wawiz c#qvRb Abhvq cKí cbqb chvq t\_#K ii" K#i cKí ev`evqb chš civgk MnY c#uqv Pvj _vK#e|

Dc-cKí wbevPb, cwi#ek mgx#v I gj`vqb Ges GgbK EMF mgn cbq#b civgk Mnb Pj#Z hvK#e|

cK#í i eo GKU As#ki mdjZv chš hviv `l#bi mv#\_ RvZ Zv#`i Dci AwK `wq#Z mv#\_ RbM#bi Pvc Ae`vnZ ivL#Z n#e Ges wbgwLZ KgmPx mgn cK#í c`#Z Ašf<sup>3</sup> Ki#Z n#e thgb-1) `lb I `lbg<sup>3</sup> Kivi e`q m#ú#K mKj Asw`viM#bi Rb` Z_ I m#PZbZv ^Zix|

2) mgišZfv#e cv#bi ,bMZ gvb gwiUis, `vbxq RbM#bi mnvqZvq cZgv#m b`xi cv#b I eR g#bUis|

3) cwi#ek Aw`Bi Awf#hM MnY c×Z PvjKib|

4) wbgZfv#e cv#bi ,b,b gvb m#úwKZ Z_ RbM#bi Rb` cKv|

5) RvZxq MYgva`tg `IY m#ú#K mgv#jvPbv cKv cK#í i tgvU e`q Ašf³ _vK#e

(1) cwi#ek mspvš wbi"cb (2) EMP Ges cbevb cwiKíbv cbqb Ges ev`evqb RAP Ges PAP Gi Rb` h#_ó e`qeiv` mn) e`q Ges Project Monitoring Unit w#v#E`v we#kl w#qM Ges cik#Y| AbvKwLZ cwiw`Z ev wej#ai Rb` AwZi³ mg#qi Rb` eb I cwi#ek gšbvjq AwZi<sup>3</sup> dvU eiv`i ivL#e| eiv`iKZ bq Ggb dvU e`env#i i #jgZv ev m#hM cK#í i _vK#Z n#e|

12. Public Consultation and Disclosure

msikó mikvix `Bi / cWôvb, vbxq mikvi cWôvb, kík cWôvb mWgZ GKK KvLvbv gwjK I e`vcK, CTP / CETP wekI I ciPvjbvKvix ,bMZ gvb wbqŠK tKvúvbx mgn GbRI Ges Ab`vb` Dbqb Asik`vi mn mKj Asik`vi`i minZ civgkμtg GB wjgUW ESA Ges ESMF `Zix Kiv nqQ| mǎY ESA Ges ESMF cWte`b tmB mv\_ evsjv mviÄg ciitek Awa`Bi Ges vbxq mikvi I cKškj Awa`Bi I qe mBtU cKvK Kiv nte| gw`Z Kwc vbxq mikvi I cKškj Awa`Bi vbxq Awdm mgtñ msikó Asik`viM#bi cieZx civgkí Rb` ivLv nte| 1g chvqi ciitek I mgvRMZ gj`vqb vbxq mikvi cKškj Awa`Bi I ciitek Awa`Bi I qe mBtU cvlqv hvte| GB WKtgUuU evg cT 2 evi TWM e`v<sup>3</sup> vbxq RbMb I Ab`vb` Asik`vi`i minZ civgkí cqvRb nte|

- ciitek msiTY wbgvejx (1997) A#bK ,wj wbgg hvnv c`vb K#i GKUv GK`j wbgg| ciitek msiTb KvR Zv wefb cKí Dbqb Ges cv_igK ciitek KgKv#i ciTY (IEE) ciiteki Dci cfvte gj`vqb (IEE) Ges ciitek e`vvcvbi ciKíbv (IEMP) I ciitek MnY thM` mb` cÎ (ECC) cvlqvi c×Z mgn Bnv Qvov evq, Rjvkq mgn, gwUi wbPi cvlb (GW) mtcq cvlb, kímgtni eR, bMZ e, tmvjgvj (ei³Ki AvlqvR Ges hvbev#bi bMZ M`m mgn| Ab`vb` cvm½K Kgc`v / AvBb mgn ciitek|
- ciiteki Kgcšv, 1992 Ges ciitek ciKíbv ciμqv|
- RvZxq ciitek e`vvcvbi ciKíbv|
- ciitek mfvmeMi AvBb, 2000

cvlb mǎ` mgn

- RvZxq cvlbmǎ` Kgcšv|
- RvZxq cvlbmǎ` e`vvcv Kgcšv, 2001 kík, vfwek eiEgjk v` Ges wbičv I wbgvY|
- kík Kgcšv 2005
- evsjv`k kigK AvBb 2006
- evsjv`ki RvZxq evox wbgvb wbgvejx (1993, 2006)
- ARb /`Lj Kiv vqx mǎ`i Aa`v`k (ivq) ((ARIPO, 1982)

Kgcšvi A_ cKvK Gi ciiteki evav mgn `i Kivi c×Zt

ECR, 97 Gi wbgvb / cbwbgvb / mǎcmviY G CETP Gi tKyx wefvM#K òjvjó tKyx emv#bv hvnv CETP Gi eR emnZ nte CETP cKí Ges Bnv#K ejv nte òjvjó tKyxí Ašf³ | mKj enEi AeKvVtg cKíi cqvRb nte ciiteki cfve gj`vqb Ges ciitek Awa`Bi

(DoE) AbgWZcÎ| ƒEwaKvixi ˆwqZ nte EIA Gi Dbq†bi cˆve †ˆlqv| ˆwqZUv nte EIA Gi cbt †ˆLv hvi D†İkˆ ECC Gi AbgWZ hv ˆvKte (DoE) †Z| ÒjvjÓ †kYxi cˆwZ Ašf³ ˆvKte mgc†bi Dci|

- cv_wgK cwi†ek cix¶vKib (IEE)
- cwi†ek eˆeˆvcbvi cwiKÍbv (EMP)

cwi†ekki AbgWZcÎi jvj †kYxi cKÍ ,wji mvivsk wbgict

(DoE) Gi c†qvM Kg†ji QvocÎ cwi†ekki QvocÎi Avteˆb cwi†ekki QvocÎ cvlqv ewlK bevq†bi cˆwZ QvocÎ|

- OP/BP 4.01 cwi†ekki gjˆvqb t
XvKvi cwi†ek I cwb (DEW). cKÍ†K A †kYx†Z cKÍ Kiv n†q†Q, Kvib cwi†ekki RwUj cwiˆwZ mǎuYfvte ˆlb wqšb Ges Aeˆenwh cwb (Waste Water) eˆveˆvcbv cˆweZ cKÍ n†Z cv†i ,iˆZcY Ask cwi†ekki cfve hv nte m¶, wePÎ A_ev b¶Riwenxb| Gme cfve mgn †Kvb GjvKv†K eˆvcKfvte Avμš n†Z cv†i Kg†ji A_ev mweav mg†ni evˆe Kv†R|
- OP/BP 4.04 Rši ev MvQcvjvi ˆvfweK Rbˆvb t
hwˆ I Rši ev MvQcvjvi ˆvfweK Rbˆvb †Kvb cfve †d†jwb, Z_wc Zv†ˆi†K cwi†ek I mvgwRK KvV†gv wbavi†b we†ePbv Kiv nte|
- OP/BP 4.12 AwbˆQvKZ cbevwmZ t
Kg†ji wbiÓ cwi†ekki gjˆvqb mǎuYi†c we†ePbv Ki†Z nte Dc cKÍ Avia Kivi c†e| Rwg AwMnY (RPF) Ges cbevmw Kgcšvi KwV†gv i†q†Q wek eˆvs†Ki gj bxZi PweKwV†Z OP/BP 4.12 Ges Zvi Kjv†Kškj mǎuYi†c Kgcšvi c†qvR†b ciˆúi mǎšZi Dci| wbiÓ mvgwRK cfv†ei (SIA) gjˆvqb Ges cbevmw Kv†Ri cwiKÍbv (RPF) hwˆ ˆiKvi nq Zte c†ZˆK A†ki cKÍ Kv†h cwi†Z Ki†Z nte hLb wbiÓ cKÍ ˆvb wbiYZ nte w†gi Kv†h ,wji GK†Î ti†L ¶wZMˆ bvMwiK†ˆi Rvbv†Z nte, Zv†ˆi mZKZvi Dcvq ,wj Z†j a†i Zv†ˆi†K cwbi ,bv ,b GjvKvi cKÍ švb ,wj†Z w†qvRZ Ki†Z nte|
- Z_ Ges mZKZv cPvi Awfhv†bi Dbqb K†i bvMwiK†ˆi wk¶Z Ki†Z nte Ges ˆvbxq cˆZôvb ,wj†K SıK mǎuKZ fvix ˆlb ewnZ g³ GjvKv Ges mivmwi SıK RbM†bi ˆvˆ, wbivcEˆv I A_-eU†bi eˆvcvi cwiPQb cμqvq c†qvRb Zv eSv†Z nte

(Ges ZZxq ˆj)

- mn†hwMxi†c Dc†ˆóvi KvR cwbi ,bv ,b mǎu†K hvnv RvZxq wekieˆˆvjq ,wj GK†Î mn ˆvbxq GbwRI A_ev bvMwiK ˆj ch†e¶b Ki†e eR w†vkb cKÍ (ETF) Ges mv†_ mv†_ w†Mgb cwbi ,bv ,b †ˆL†e| wkı ,wji DıPZ w†ˆjxq Dc†ˆóvi Ask wnmv†e maveˆ gZwe†iva wqšb Ges GKB mgq hviv cwiˆQb cμqvq KvR Zv†ˆi mǎúb mn†hwMxZv Kiv|

Bnv#Z`vbqxq we`vj q ,wj#Z ga`Zv K#i m#\_ m#\_ m#e`bkxj`vbqxq #kí cwbí`l#y
Avµš RbM#bi m#PZb Ki#Z n#e c#iKíbvq|

- $\mathbb{P} \setminus \mathbb{Z}M^{-1} \setminus i$ $c_{\mathbb{Z}O\#bi}$ Kv $c_{\mathbb{W}Pj\#vi}$ c_{Yjx} $Zv\hat{\cdot}i$ $Rb^{\sim}$ MVb Kiv $hvi\vee$ $\setminus Ib$ $cev\#n$ $A\vee\mu\hat{\cdot}\hat{\cdot}S$ $b\vee M\hat{\cdot}iK$ I $\setminus vb\#q$ $c_{\mathbb{Z}O\#b}$ mgn $h\vee Zv\hat{\cdot}Z$ $\mathbb{W}^{\sim}\hat{\cdot}j\#q$ $ms\setminus v$ $m\vee VK$ $f\vee\#e$ Ges $m\vee VK$ $Dcv\#q$ $\mathbb{W}bMgc\hat{\cdot}\hat{\cdot}i$ $\mathbb{W}e\#klb$ $Ki\hat{\cdot}Z$ $cv\hat{\cdot}i|$ $\mathbb{P} \setminus \mathbb{Z}M^{-1} \setminus i$ $\mathbb{W}VKv\#v$ $c_{\mathbb{W}ieZ\hat{\cdot}bi}$ $c\# \mathbb{W}Z\hat{\cdot}Z$ $\dagger Kv\setminus vq$ $\dagger Kv\#b$ $M\hat{\cdot}n$ $Zv\hat{\cdot}\hat{\cdot}i$ $Am\hat{\cdot}\hat{\cdot}S\vee I$ $\setminus vK\hat{\cdot}Z$ $cv\hat{\cdot}i$ $\dagger Kv\#b$ $M\hat{\cdot}n$ $c\hat{\cdot}\hat{\cdot}Z^{\sim}K$ $g\vee j\#KM\hat{\cdot}bi$ Kg $Abh\vee q\#$ $Zv\hat{\cdot}\hat{\cdot}i$ $\mathbb{W}VKv\#v$, $m\alpha\acute{u}\vee\hat{\cdot}\hat{\cdot}bi$ mgq Ges $Zv\hat{\cdot}\hat{\cdot}i$ $Av\#e\hat{\cdot}\hat{\cdot}bi$ $KgKv\hat{\cdot}\hat{\cdot}U$ $\mathbb{W}e\#fb$ $c\hat{\cdot}\hat{\cdot}\setminus vK\#e|$
- $\mathbb{W}bq\#qZ$ $\setminus b$ $\setminus b$ $e\vee\#cK$ $f\vee\#e$ $c_{\mathbb{W}bi}$ $\setminus b\vee\setminus b$ $ch\hat{\cdot}\hat{\cdot}\mathbb{P}b$ $Dbqb$ Ges $j\mathbb{P}^{\sim}$ $\mathbb{W}eavib$ Kiv $\mathbb{W}k\acute{f}$ $\setminus j\#i$ $h\vee\hat{\cdot}Z$ $Zv\vee\vee$ $Zv\hat{\cdot}\hat{\cdot}i$ $cev\#nZ$ $e\#Ri$ $c_{\mathbb{W}ig\#bi}$ $Dbqb$ $Ki\hat{\cdot}Z$ $cv\hat{\cdot}i|$ G $\setminus j\vee$ KvR $Ki\#e$ $B\vee ZevPK$ $A\hat{\cdot}\hat{\cdot}\setminus Ab\setminus vb^{\sim}$ Kg $Am\hat{\cdot}\hat{\cdot}S\vee I$ h^3 $Kv\vee Lv\#vi$ $h\vee$ $e\vee QvBKZ$ $\dagger Kv\alpha\acute{u}\vee\#j$ $\mathbb{W}j\#cex$ $\#bB|$ $A\#f\#h\vee M$ $Aek^{\sim}B$ $\hat{\cdot}Z\vee i$ $Ki\hat{\cdot}Z$ $n\#e$ $RbM\hat{\cdot}bi$ $g\vee a\hat{\cdot}\hat{\cdot}tg$ Ges $\dagger \mu Zv\hat{\cdot}\hat{\cdot}i$ $\dagger h\vee M\vee b$ $\mathbb{W}\hat{\cdot}\hat{\cdot}Z$ $n\#e|$
- $cP\vee i$ $c\# \mathbb{W}Z\hat{\cdot}Z$ $\setminus kb\#q$ $cP\vee i$ $A\#fh\vee b$ Ges $\dagger M\vee j$ $\dagger U\vee j$ $\hat{\cdot}e\vee K$ $\setminus vcb$ $K\hat{\cdot}i$ $B\vee ZevPK$ $A\#f\acute{A}Z\vee i$ $cK\vee k$ $Ki\hat{\cdot}Z$ $n\#e$ $h\vee$ DEW $cK\hat{\cdot}\hat{\cdot}i$ $\setminus c\hat{\cdot}\hat{\cdot}\mathbb{P}$ KvR $Ki\#e$ Ges GKB $m\vee\hat{\cdot}\hat{\cdot}\setminus$ $RbM\hat{\cdot}bi$ $g\#b$ $mZKZ\vee i$ $m\vee\vee\vee$ $c\vee Iq\vee$ $h\vee\#e$ $c_{\mathbb{W}i}$ Qb $Drc\vee\setminus b$ $c\# \mathbb{W}Zi$ $X\vee Kv$ Ges $e\vee s\#j\vee\hat{\cdot}\hat{\cdot}k|$

4| weKí-c×wZi we†kIb

weKí ~~v~~bi we~~k~~lbt

cKÍ c⁻WZ⁺Z, wKÍ GjvKv RwiC Kiv n⁺q⁺Q, enËi `WIZ Outfall ,wj WPiY⁺Z Kiv n⁺q⁺Q 2006-07 mv⁺ji AwWU Kiv wKÍ KviLv⁺bv ,wj⁺K| wKÍ KviLv⁺bvi Rwi⁺c Ašf³ Kiv n⁺q⁺Q bgbv Ges ewni nIqv eR cwigvc Kiv n⁺q⁺Q c⁺qvRbxq enËi Outfall ,⁺tv| 41 wU enËi Outfall Gi Effluent Gi bgbv msMn Kiv n⁺q⁺Q 9wU wKÍ KviLv⁺bvi Cluster -2 ⁺_⁺K| ciw⁺WIZ djvd⁺j ⁺_⁺Lv ⁺Mj⁺Y cej| 41 wU bgbv msM⁺ni ewn⁺i BoD Gi Nbgv⁺Îv 34 wU bgbv⁺Z ⁺_⁺Lv ⁺Mj EQS 50 mg/2 Gi D⁺taÿ Ges Do Gi Nbgv⁺Îv 40 wU bgbv⁺Z bx⁺Pi gv⁺Îv EQS 4.5 mg/2 Gi mw⁺nZ A⁺v⁺tgvwbqvi Nbgv⁺Îv 19 wU H bgbv⁺Z ⁺tekx EQS 5 mg/2 Chromium Gi 1wU bgbv⁺Z nvRvixevM n⁺Z thLv⁺b Tanney ,wj Ae⁺W⁻Z djvdj ⁺_⁺Lv ⁺Mj Le ⁺tekx 30.6 mg/2 hv⁺nv Zjbvq EQS 0.5 mg/2 Gi 3wU bgbv⁺Z Cadmiun Gi Nbgv⁺Îv ⁺tekx (⁺gvUvgwU wØ, b) hv⁺nv EQS Gi 0.5 mg/2 ciw⁺WIZ djvd⁺j ⁺_⁺Lv ⁺Mj fvix Metal ⁺_⁺lb e⁺vcKf⁺te we⁻Z XvKvi Watershed GjvKv⁺Z bgbv, msM⁺ni mgq hv⁺nv nDK Bnv ejv hvq gv⁺Î 41wU outfall Gi bgbv msMn n⁺q⁺Wj ⁺Kej GK evi| cKÍ AbeiZ cw⁺ibi ,bv, b ch⁺teW⁺b Ki⁺te cKÍ Kv⁺th cw⁺ibZ Kiv chš| G M⁺teIbv AviI c⁺_⁺W⁺c w⁺b⁺q⁺Q| BoD ⁺jjwW Gi wbg, wji Effluent Gi Ges Domestic Effluent Gi| Bnv ⁺_⁺Lv ⁺Mj th ⁺_⁺l⁺bi ,i⁺Z ^Re ⁺_⁺l⁺b (BoD Effluent Load) m⁺áub BoD wKÍ e⁺R ⁺tekx Domestic ^Re ⁺_⁺K wKÍ KviLv⁺bvi Ae⁺vb Effluent load ⁺_⁺Lv hvq cvq 84% hv⁺nv nDK Domestic Effluent load 16% ⁺_⁺K 39% G ⁺te⁺o⁺Q hLb BoD Effluent Load 13wU Domestic waste water outfall ⁺_⁺K ⁺tbqv n⁺q⁺Q| GLbi wKÍ KviLv⁺bvi

Effluent load 60% Gi I tek, hnnv cKZ c¶ Zvrchcb Ges bgbv msM¶ni Kv¶R GUvB
 AWRZ n¶jv th `lb wqš¶b th tKvb cwiKíbv AWZ mZKZvi mv¶_ AMmi n¶Z n¶e XvKvi
 Watershed ,¶jvi `lb wqš¶b|

Ab" Av¶iKwU M¶elbv b¶qv n¶q¶Qj 2009-2010 mv¶j hv ppp Gi g¶bvqvb Qj wkí KvLvbv
 Waste water treatment Ges cbivq e¶envi Kiv| G M¶elbv Avil Ašf³ K¶i¶Q
 ZjbvgjK we¶klb c¶ei Cluster we¶Pbvq|

wbgwjLZ Cluster ,wj Dc¶iv³ M¶elbvq we¶Pbv Kiv nqwb:

- nRvixew miKvi nRvixev¶Mi tUvix ,¶jv¶K Ab" bZb wkí GjvKvq vbvšwiZ Kivi e¶v
 K¶i¶Qb|
- tZRMvI t GB Cluster wU XvKvi ga¶¶j Ae¶Z Ges ZvB wmvš tbqv n¶q¶Q G Gjv¶K
 enEi fv¶e wkí GjvKv t¶K e¶mvqxK KgKv¶Ů w¶q Avmteb A¶bK fvix wkí KvLvbi
 KvRKg GLb XvKvi we¶fb cv¶š mwi¶q tdjv n¶e| G aviv Avkv Kiv hvq Pj¶Z vK¶e Bnv
 KLbI mVK n¶e bv th f¶el¶Z eo AvK¶ii Industriaial Waste Water
 Treatment Gi Rb" A_LiP Kiv|
- DPEZ- BEPZA Gi KZc¶¶ wmvš w¶q¶Q Zviv e¶v³ gwjKvbvq wBwUic wbgv¶Y A_
 LiP Ki¶e|

ZjbvgjK we¶klb¶i Rb" wfE wnmv¶e wKQ Parameter w¶q KvR Kiv n¶e hnnv wkíi we¶fb
 w`K mn cwi¶ek I mvgwRK w`K w¶q KvR Kiv n¶e|

Parameter ,¶jv n¶"Q:

- 1) GjvKvi eYbv|
- 2) wkí GjvKvi NbZ
- 3) cwbi ,bv, ¶bi djvdj
- 4) Ab"vb" mivmwi Parameter
- 5) Effluent Gi mgqi"czv
- 6) wBwUic Gi Rb" R¶g
- 7) Pre-treatment g¶bvqvb/B"Qv
- 8) Rj wBwK¶bi cKvi Ges b`x t¶K Zvi `iZ
- 9) msK¶Ui I weev¶`i BwZnvm
- 10) cbevmb wBMg c_
- 11) wbgv¶bi mgq fv¶zqv t`Iqv M¶elbvq wbgwjLZ vbv ,wj¶Z wBwUic wbgv¶bi c¶vgkUv
 t`Iqv n¶jv|

M¶elbvi mave"Zvq eZgv¶b Dc¶i ewYZ IwU Cluster G wBwUic vbv wbaib Kiv n¶q¶Q|
 wbgwjLZ wYvqK ,wj we¶Pbv Kiv n¶q¶Q mave"Zv M¶elbvq wBwUic wbgv¶bi Poiš chv¶q
 wBwUic Gi

- Dbqb KvH Ges i¶bv¶e¶b|

- "Ib evav c`vb Ges ce-Treatment KgKvU c_g dR (Phase-I) KiZ nte Textile
Factory tZ mKj 3w Cluster G tKvbveox Kwmgci, dZjv Ges GbvqZ bMi | tKej gv
GKu Ask / eZgvb IwU Cluster Gi Astk wBwuc ^Zwi Kiv nte (Phase- II) eZgvbi
c`weZ At\_ (hw`l t fMwjK meavi mv_ mv_ Bnv ewaz nte Awzi³ At_) |
cv_wgK chw³ msuvš gj`vqb ce-mave`Zv Mtelbvq tKvbveoxi wKQ Astk wkí ,t`Q tek
meavtbK chw³ msuvšši AvtjvtK hv ga` AvqZbi wBwuc wbgvb Kiv hvte (Phase- II)
tZ| AZGe, BnvB eZgvbi c_g w`tKi PwjZ ,`Q| G Kvib ESMF nte GLb ce DbwZkxj
Mwxcj Cluster

ʷewkōːgǝK VS mʷavib ETP t ʷeKí ʷeːkǝb ʰewkōːgǝ ETP Ges mʷavib ETP gʰvbvqb
 Kiv nːqːQ Aː_, cwiːtːki cfve Ges Rːgi cvcːZvq | G , ːjv ʷeːPbvq Avbv nːqːQ Aːw fÁZvq
 Abːvbː knːii AÂːj Ges evsjvːːki bMi eːeːvcbvq |

- 8

cwi#tki cfve mgn t tK`xq fv#e PwjZ mBwUwc fvj fv#e dj#`#e BwZevPK cwi#tki cfv#e| e`vcK ch#e#b Ges mxgZ DoE Gi avib #gZv wbfq K#i c#qvRbxq Technical Ges mwVK PjvP#ji I mieiv#ni we`vq (Logistory) Bnv LeB KwVb th mwVK fv#e k# Monitor Kiv| AbeiZ A#bK ,wj #e#k#`gjK ETP Gi wmqv Kjvc ch#e#b Kiv| eZgv#b tKvb e`e`v tbB eR we@vk#bi (Mv` mn) hv AwZwi³ `l#bi SwK| Zjbn K#i t`Lv tM#Q GKwU mwBwUwc GKRB cwiPvj#Ki `wq#Zi Dci \_vKvq Monitor Gi tevSv n#q hvq DoE Gi| tgv#Ui Dci GKRB cwiPvjK A#bK tekx Rvb#Z nq wKfv#e m#ub I wbi#v#v Ges mwVK cwi#x c#w#Z t#l wbgvb c#w#Z Ges tkl eR `vcb (Mv` mn) `pfv#e w bq#Z Kiv DoE Øviv Ges bZb mwBwUwci AvIZvq Ges Mv` `vc#bi w#`wkKv hvnv m#uY n#e (Phase-I) Gi cK#i|

- R#gi cvc`Zv t h#` I R#gi cvc`Zv GKwU eo evav mwBwUwc Gi Rb` R#gi cvc`Zv eo eo `ZS `vcb Rb` I evav| we#kIK#i tQvUv i Rb` hvi Rb` R#gi RvMqv bv _vK#Z ETP w#R#` i Øviv wbgvb Kiv m#e bq| Bnv Qvov Bnv LeB `iKvi th, A#bK `ZS tQvU Textile Factory ,wj#Z tKvb R#gi e`e`v tbB| A\_ev tKvb A#\_i Drm tbB A\_ev e`e`vcbvq Technical wKQ Rvbn tbB Ges mgq tbB ETP #Z wbgv#b I e`e`vcbvq| tgv#Ui Dci, A#bK Textile Factory ,wj#Z hv#Z tKvb Pwv`v tbB c#qvRbxq gj` wbbqK hv gj` mweav AbcvZ ETP VS CETP g#bv#q#b GRb` A#bK tQvU Factory ,wj gj` mgm`v Dc#iv<sup>3</sup> evavi Kvi#b| ZvB mwBwUwc tKej gv# cQ` hv chw# tmB Abmv#i RvZxq Ges AvS RvwZK cwi#tki gvb I cwiPvjv i#vbx evRv#i i Ask t#b tbIqv| hvnv nDK, Bnv Avkv Kiv hvq bv th mwBwUwc tK m#ub ETP Øviv c#w`vcb Kiv hv#e, Bnv Zjv#gjK fv#e mgvavb t`#e, we#kl K#i mwVK tQvU I ga`g Textile Factory ,wj#Z hvnv c#Z`KwU Cluster Gi mwK#U|

w#K#i ce-#kvab g#bv#q#b t

CETP #kva#bi Design Gi B"Qv e`vcK ce- #kva#bi gv#v#K Kwgtq t`q, AZ:ci Bnv GKwU e`q e#j I RwUj c#w#Z hvnv cK#i c#w#Z#Z Kivi Kv#R ev`weK, CETP wbgv#bi `vq-`wqZ n#e w`wZ`vcK| tgv#Ui Dci 80-90% Textile Factory ,wj#Z Zvrv#` i cewv#Z eR ce gj ce #kvab c#wqv gv#| hLb cK#i mKj Ask MnbKvix Factory ,wj#Z GKw#K K#i gj -#kvab tekx e`vcK B"Qvq th eo Textile Factory ,wj A_ev Textile Factory Qvov g#bv#hM w`#e c_K fv#e|

G mKj ce-#kvab c#wqi B"Qv n#e-

- 1) CETP #K i#v Ki#Z n#e Toxic e` ev Ab`vb` wec#4bK Dcv`b t`#K
- 2) Effluent Gi gvb#K wbi#v#vq msMn Ki#Z n#e CETP Gi RvZxq gv#b (GUv#Z `iKvi n#e ce-#kvab th me e` miv#bv hvq bv CETP Øviv)
- 3) CETP Gi Mv` mgn#K wbi#v#vq ivL#Z hvnv cbt e`envi thvM` nq Mnbxq gv#b|

„Zb aibici cQ`tk cibvq t`Lz nte cKí Design Gi Rb`|

hvvv nDK, mVK B”Qv Mnb mva” gZ ZŠ Factory ,wj m×vš tbtē c_g cte (First Phase).

gj ce-#kvab t gj - ce tkva#bi Mvb `iKvi nte mKj ga’g I eo Textile Factory ,wjz (KŠ tQvU ,tjv cix¶v Kti t`Lz nte) GB mKj gj ce tkvab cμqv msh³ nte A_ev mKj wbg avc ,wjzt

1) Nwb Øviv (tQov UKiv Rwj t_K mivz nte|

2) %Zj Acmb (Dciv³ fvmš ^Zj Ges MxR I Mv` tdtj w`z nte)

3) mgK¶Zv (tekx `I#bi teva” mave” i”tc Kgv#bv)

4) ckwgZ Kiv (eR cwbi Mnb#hM”) PH Gi gvb 6 t_K 8.5 Gi ivLv)

5) ZjvbxKiY (evj I w_Zv#bv e” miv#bv)

Bnvi mwnZ msh³ cevn wbyqKvix wguvi I bgbv ev· vcb Kti Effluent Gi cevn wbyq Kitz nte Ges mVK bgbv Mny Kitz nte (cevn Abcvz)| Dciv³ DcvE ZŠ Ask MnyKvix Factory ,wj nZ msMn Kitz nte Phase-I PjvKvj hvv Povš CETP Design Gi mgq Calibration G KvR jvMte|

ce-#kvab 1 t ce-#kvab 1 Gi `iKvi nte 10% Ask MnbKvix Factory mKj| wbgwjLZ cigvci D#k” n”Q cv\_wgK fvte ^Re tkvab cμqv A\_ev Sewer System Gi Amieav A\_ev bó nIqv KŠ Effluent Gi gvb gwbbqv jBz nte, mv#\_ mv#\_ Mnb#hM” Zv`i ,bv, b Mnb Kitz nte| thgb D`vnib ijc Kvl KvRi Rb” Recycling Kiv| Povš PH Gi gvb (GmW PH < 6 Ges ¶vi PH > 8.5) wtz nte hvz ckgb Kiv hvq GmW A\_ev ¶vi Øviv, GUv fv#jv nq h” msh<sup>3</sup> qsKZ PH wqšb hš; D”P Nbzi fvix avZe Kvgz nte, D`vnib ijc tkvb aibici ivmvqwbK tkvab A_ev mweavRbK c×Zz cieZb / Dbqb kí GjvKvq| D”P Nbgvivi LwbR %Zj Kvgz nte D`vnib ijc mweav RbK ^Zj c\_K Kib, tkvb tkvb mgq GUv ZiwbZ Kiv hvq wKQ ivmvqwbK c`_ev Ab”vb” DbZ c×Zz| Ab”vb” D”P gvivi Toxic Substance thgb Pesticide Kvgz nte A_ev wKQ gvivq fVM Kitz nte|

mave” c×Z Ašt” fvte cigvc Kitz nZ A_ev ein” tkvab ivmvqwbK Ges / A_ev ^Re c×Zz cigvc Kitz nte c×Zi cQ` mVK fvte wbf i Kite we#kl fvte| mvj#dUi D”P NbZ, hvv Concrete #K ¶q Kti Ges Ab”vb” mgm”v mvo Kti, BnvK tKej Kgv#bv hvte hv e”eüZ n#q#Q Zvi cigvb Kvgq A_ev w#íi th mvj#dU R#q#Q Zv Kvgq|

ce-#kvab 2 t ce - tkvab 1 c#qvRb nte 10 % Ask MnyKvix Factory ,wji wbgwjLZ wclq ,wi cigvc Kitz nte WWTP Gi Overloding i¶v Kitz ^Re c`v#\_i mv#c#¶¶ (BoD, CoD) Sjv#bv e” (TSS) A\_ev bvBtU#Rb (N) Ges dmdivm (P) thšM| G, #jv Avi I c#qvRb Effluent Gi gvb wbavi#b D”P gvivi Nbzi TSS Kgv#bv hvq w\_Zv#bv U”vs#K (ST) wdëv#i BZ”w`| D”P gvivi BoD Ges CoD IRb mvaviYZ Kgv#bv hvq ^Re ce-#kvabMv#i m#eZ: ivmvqwbK Flocculation G| Svk GUv th D”P Nbzi bvBtU#Rb I

dmdivm cwiPwjZ K+i IR+b hvnv bMb" | hw` ce-#kvab c+qvRb nq Z+e ^Re Ges / A_ev
ivmvqwbK c×wZ c+qvM Kiv th+Z cv+i |

weKí tkva+bi cQ>` ,wj t e"vcK c+_i tkvab KwiMwi c×wZ cv lqv hvq WW tm±+i |

wkí ,+Q (Industrial Cluster) +Kvbvevox - Kwimgci c+o+Q MvRxc i hv ^Re `l+bi
cv_wgK chv+q hvnv mvaviY cwigvc Kiv nq BoD I CoD wbYq K+i | tkvab cwmqv we+Pbv
Kiv Effluent Gi gv+bi KZZ Øviv A_wbZK wbfithvM"Zv Ges mnR Dcv+q vbxq KZKg
Øviv | mave"eZv M+elbvi Øviv KZ ,wj tkvab cwmqv we+Pbv Kiv n+q+Q MvRxc i ,+Q | G ,+jv
n+Q-

1) we-Z evqcbvqb

Extended Aeration / Oxidation ditch

2) Abµg w bqšZ `j Øviv kw<sup>3</sup> Drcv`b hš

Sequencing Batch Reactor (SBR)

3) wØ ,b kw³ c`vbKvix evqh³ Rjvavi

Duel Power Aerated Lagoons

4) evqi Abc" wZwZ kw³ Drcv`K hš evqcb Rjvavi

Anaerobic Reactor Aerated Lagoon

5) wUc wUc cwb civi we+kvab Kiv + ivmvqwbK Aat+qcb

Truckling Filtering Chemical precipitation Ges

6) ivmvqwbK Aat+qcb c×wZ

Chemical precipitation System

Abµg w bqšK `j Øviv kw<sup>3</sup> Drcv`b h+ši (SBR) c×wZ cwicY Ges Abmvix mµµq Mv`
c×wZ (Activated Sludge System) mwZ" m+úY m+úK Ges AweKj cwZi/c bKkv wkí
,+Q enEi Abcv+Z Textile Factory +Z Ae"Z | (Ges Ab"vb" ,wj D"P ^Re Dcv`v+b
mg×) | Bnv+Z Av+Q q` fv+e wPwY, hvnv g<sup>3</sup> GjvKv+K mn+RB wPwY Kiv hvq XvKvi wkí `lb
S+kcy AÂj wnmv+e | Gme GjvKv c_g w`+K miKv+i i AvIZvq wQj wKš mg+qi weeZ+b
Abgvb Kiv hvq G ,+jvi e" w³ gwjKvbn h³ | KgKvÛ I e"e"vcbv `+Uvi gj LiP ZjbvgjK
fv+e Ab"vb" `lb ckwgZ Kivi B"Qv ("Z>` ivmvqwbK A_ev ^Re tkvab B"Qv)

5 | cwi+ek Ges mvgwRK gj tiLvi eYbv |

f-ms"vb (**Topography**) t f-ms"vb wnmv+e ,QwU tgvUvgwU mgZj hv A+bK wbp RvqMv
cvKwZK Lvj mgZ, ZivM b`x Øviv teiÓZ | ZivM b`xi cv+o A+bK Lwj wbp Rwg Av+Q thLv+b
A+bK BU ^Zwii KviLvbn Ae"Z |

wbp RvqMv I Lvj ,wj ^Re KvPv I wUv Øviv MwZ | ,PQwU gaci Kv`vgg v+b Ae"Z, hv i Mo
ci"Z tgvUvgwU 10 cm hv AwZwi³ Nb Kv`vh<sup>3</sup> wme Øviv MwZ Ges Bnvi wbg t`+k
Pleistocene Dupi Tila Øviv MwZ | A+bK wbp RvqMv I Lvj mgn Tectonically
wbqšZ |

Rjevq t MvRxc i GjvKwU Av` Dc-Mx@sgU†j AeWZ hvnv†Z ZvcgvÎv e`vcK cwieZb nq Mx†@§ Ges kxZKv†j | Mx@§ tğšm†gi cte (gvP †_†K tg' †Z), elvKvj tğšm†g (Rb †_†K A†±vei), kxZKvj (b†f†i †_†K tde"qvix) elvKvj Mig Ges Av` AvenvIqv h³ hvnv†Z 90% ewlK ewócvZ nq | kxZKvj cejfv†e VvŮv Ges i@ | Mx@§Kvj Mig Ges i@ hv†Z gv†S gv†S LP ewócvZ nq | ewlK enËi Mo ZvcgvÎv 36°C Ges mǎúY ZvcgvÎv tgvUvgU 12.7°C ewlK ewócvZ tgvUvgU 2,376 mm

fłgi e`envi t GjvKwU KwI dm†ji Øviv mg× Ges GB „†Q A†bK „j Brick Fields Av†Q | gj km` n†Q avb, Mg, Avj, imb, KvPvgwiP, wcvqR I Ab`vb` kvK-meWR†Z mg× |

GB „†Q A†bK „j wkí GjvKv AeWZ hv†Z †Kvbvevox BSCIC wkíU i†q†Q | A†bK tğšmgx dj Av†Q thgb KvVvj, Avg BZ`w` | gj GjvKwU wPwY Z Kiv n†q†Q CETP Zv miKv†ii Lvm Rıg Ges hv †Kvb enËi A_wbWZK Kv†R wb†qWRZ bq | wKQ fvg Av†Q Zv wefb FZ†Z dmjv Rıg i|c |

f-ZË we`v Ges f-A½ms`vb we`v t

MvRxc i „QwU gaci Tract Gi `włb †Kv†b AeWZ hv†Z civ†bv epcÎ, ZivM, eskx Ges kxZj łv b`x AeWZ | GB Tract wU Pleistoceneage cıj Øviv MıVZ hvnv†Z wbgPvc Plio-Pleistocene Dupi Tara `i Øviv weWZ | MvRxc†ii M†elbv GjvKwU AeWZ Mfxi Geosynclinals Part Bnvi `ekó n†Q e`vcK cıj mg× aviv hvi mǎúUv ZZxq chvq μ†gi cıxłvKZ D`P Tectonic A`vqx ev mPj AeW | Mfxi AeewınKvi `i-web`vm Mvd hv Fore deep fold belt Øviv MıVZ hvi `włb-ce w`K cPi ci†Zi ZZxq `i wekó cıj mg× | GLv†b cvnv†oi aib A†bK †QvU f-ZË we`vi eq†m Ges hvnv Oligocene Ges Recent mg†qi AeewınKwU†Z cvIqv †M†Q `Z Subsidence Ges Sedimentation.

MvRxc†ii fZ†Ëi MV†bi eYbv mıVK f†e wbfı K†i Geophysical Survey †_†K _v†K e†j Titas Structure GUv GKwU Antidinal Fold Wvnvi †Kvb Zjxq A½ms`vb Aege †bB Ges hvnv AveË Av†Q Meghna River Floodplain `vcbv Øviv | Tital Anticline n†j DËi `włY w`K weWZ Semi – Domal Structure hv cfweZ K†i Technically Positive Element Mfxi Dc-Zj †_†K Tital Anticlinal Closure evsjv†`†ki g†a` cKıZ†Z Asymmetric me†P†q eo (168 km) Structure wU hv L†ov Mfxi ce cvk†`†k Ges bgbxq Xvj cıđg cvk†`†k GLvbKvi fłgi `i f½ †`†L GUv tevSv hv th, Mfxi Zj ce cvk†`†k hv †`Lv hvq f-Kǎúxq cWZmvi†bi _vgv †`†L |

fłg-Z†j i cwlb mǎú` Surface water resumes thgb Ab`vb` †`†ki Ask n†e GB „Q I h†_ó ewócvZ Mnb K†i (Mo ewlK ewócvZ n†jv 2376 mm. ZivM b`x n†j m†eYvP fłg-Z†j cwlb mǎú` GjvKv †Kvbvevox-Kvımgci „†Q MvRxc i wefv†M | Bnv MnY K†i mKj wkí „j i hviv Rq†`eci-Uv½vBj iv`v Ges †Kvbvevox-Kvımgci wkí AÂ†j hvnv Tixtile, cv`K wkí, Lv`, imvqb Pharmaceutical deteyent BZ`w` | †Kvb †Kvb wkí GjvKvi wbR` Effluent Treatment plant (ETP) Av†Q Ges A†bK „j i Avevi ETP †bB hvi Kvı†b

G GjvKvi Pwii`K Qovbv fig-Ztji cwb i AAj ,j `IZ hvnv GKUv eo AvKti i cwik msKU G ,tPQi |

f-Mf` cwb mdu` (Ground Water Resources) chvB f-Mf` cwb vKvZ G AAj mnRB cvdu Øviv cvb Kiv cwb Dtvjb Kti cvb Kiv I Mn-jxq KvR Kiv hvq | WKQ wkí cZôvb Mfxi bJKc vcb Kti Zv`i cwmti fvjv cwb wefb KvR jvMv`Q | wefb Avevm fig ,wjZ Zviv n-PwjZ cvdu Øviv Zv`i Mn-jxq KvR KitiQ | eZgvb cvtu i cwb cevni gvÎvi tKvb DcvE tbB MvRxi ,t`Q Avqib I AvtmBK h³ cwb ,bv ,tbi GKU eo iKti mgnv |

Ecological mdu` mgn G ,t`Qi Ecological Ae`v tgvUi Dci Rjvfg Avevm fig Ges iv`i cvtki ebfwg BZ`v | Avevm figi ebfwg gvUi cwb i Rb` BZevPK `K hv Qvqv I Mvti Pwii`K tRv Lo I cvZv mgx | Avvmv fig ,wjZ Rbvbv MvQ cvjv mKj Aaevmt`i Rjvbx tMv-gvnlv`i i` Lv` c`ZtZ Ges Ab`v` Dc-cv`b KvR jvMv`Q | AtbK iKti wefb MvQcvjv (dtji, KvVi, MoncwjZ ci Lv`, Jla) G ,t`Q Rtb | Zv`i gta` AvZ mvavib MvQcvjv nt`Q Kvj, Avg, tje, Kvj BZ`v | `B cKvii cvYxKj thgbt f-Pi Ges RjR cvYxKj G ,t`Qi fZti I Avtk cvtk PýZ Kiv ntqQ |

Dv`Kj (Flora) t GLvKvi RjR Rgi Dv`Kj mgn wefb iKti MvQcvjv I cvYx`i msi`ti Dcthm | RjR Rgi emevmKvix Dv` ^ekó evqi Abc`ZtZ hvnvZ mvaviY Dv` Rtb | G ,t`Q `B aiti RjR Rgi mg_b Kti |

1) vqx RjR Rgi |

2) tgmgx RjR Rgi |

vqx RjR Rgi b`x Ges eRve cwb mdu` mgx | GB RjR Rgi ,j ciZ`v<sup>3</sup> Ges Avkq tbiqv RjR Dv`Kj | tgmgx RjR Rgi Pvlev`i Rb` Dcthm | RjR Dv`KjK vef<sup>3</sup> Kiv hvq vbxq RjR mact`i fivEz tek KtqKU cwik Ae`vi Dci | RjR mact`vq ,wjK bgwjLZ fvte vef³ Kiv hvq g³ fvmš MvQcvjv, Weš fvte fvmš MvQcvjv, wkKi mn fvmš MvQcvjv, bjLvMo Ges Zbeuj t`Î, cvst`kxq Dv` mgn |

eb I msi`Z GjvKv t fvlqv RvZxq ebfwg Ges fvlqv RvZxq cvK ntjv MvRxi vefvMi mePtq eo ebfwg Ges msi`Z GjvKv | G ,tjv c`weK CETP cKti Ae`v t`K AtbK `ti Ges GLv`b CETP bgvb KivZ tKvb g` cfe tdjte bv cwikti fvimv`i i`vq | cvLxmKj eb`Rš mgn Ges Rjvfigi emevmKvix cvYx mgn t GK cvtk mvaviY cvLx thgb KvK, PoB, kvjK, tKvKj ev` Ges wKP MncwjZ ci e`ZZ Ab` tKvb eb` cvYx G AAj emevm Kti bv | th eb` Rxb mduYi`c bfi Kti f-Pti Zv`i mdu` Rxb-hvcb Av`Z, Avkq, Lv`, evm`v, cRbb Ges vtr`i ev`v`i Gme cvYx`i iK f-Pi cvYxKj | f-Pi cvYxKti Aš`j Dcv`b ntj DfqPi, mixmc, cvLx I bcvqx cvYxmKj |

gvQ aivi ᎐vb mgn t ZvRv-UvUKv cwi᎐i gv᎐Qi ᎐vfweK evm᎐vb ᎐᎐j n᎐PQ b`x, cKi I thLv᎐b MZ Av᎐Q| ᎐fZ᎐i I Zvi Av᎐k-cv᎐ki ᎐᎐Q, hvnv c`vb K᎐i G᎐`i Avkq᎐j, Lv` Ges ᎐Wg cme Kivi ᎐vb ᎐efb iK᎐gi gv᎐Qi RvZ ᎐`Lv hvq|

gv᎐᎐i eo AvKv᎐i i gvQ aivi ᎐vb n᎐Q ᎐gvVcwi᎐i gv᎐Qi ᎐vfweK evm᎐vb ZivM b`x᎐Z| kv᎐Qi Drcv`b cRbb, cwi᎐i gv᎐Qi e᎐x Ke mn᎐R I mgZ᎐j e᎐x cvq ᎐g᎐mgx eb`vq ᎐fZ᎐i I Gi Av᎐kcv᎐ki c᎐weZ ᎐᎐Q| GB ᎐᎐Q A᎐bK ᎐R᎐j Av᎐Q Zv᎐`i gj R᎐weKvi Av᎐qi Drm ZivM b`x I cvK᎐ZK Lvj mg᎐n|

mvgwRK I mvs᎐ZK cvk`k` t G ᎐᎐Qi mvgwRK I mvs᎐ZK cvk`k` evsjv᎐᎐ki Ab`vb` AĀ᎐j i gnB| gm᎐jg RbmsL`v n᎐Q ᎐vb᎐q RbmsL`vi 90%, ᎐n` I Ab`vb` agvj᎐x gvĭ 10% gm᎐jg᎐`i eo Drme n᎐Q C`-Dj Avhnv I C`-Dj ᎐dZi Ges ᎐n`᎐`i Drme n᎐Q `Mv cRv, Kv᎐x cRv BZ`᎐`|

᎐jvKmsL`v Ges m᎐c`v᎐q `ewkó` mgnt G ᎐efv᎐Mi ᎐gvU RbmsL`v 2001 m᎐᎐j i MYbv Abm᎐᎐i 2,026,244 hv g᎐a` 51.77% ci`I, 48.23% ᎐᎐jvK; gm᎐jg (91.9%) ci᎐b᎐aZ K᎐i a᎐g Ges Ab`vb` ᎐n` (7.5%) Lxóvb (0.4%) Ges Ab`vb` agvj᎐x (0.2%) RvZxq ᎐c᎐᎐jKiv n᎐Q ivReskx (᎐K᎐P), (Koch) M᎐᎐iv Ges gv`x (Mandi) ᎐hLv᎐b CETP Gi Ae᎐vb c᎐weZ n᎐q᎐Q| ᎐mLv᎐b ᎐Kvbvev᎐xZ ᎐gvUgvU ᎐jvKmsL`v 62,772 Rb Ges Kv᎐mgc᎐i ᎐gvUgvU 48,272 Rb, ᎐gvU ᎐jvKmsL`v 111,044 Rb|

A_-mvgwRK Ae᎐v mgn t Mo ᎐k᎐᎐᎐᎐᎐᎐ nvi 36.25% (ci`I 43.2% Ges ᎐᎐jvK 29.3%)| G GjvKvi enĖi Av᎐qi Drm GLvbKvi RbmsL`vi G ᎐᎐Q K᎐I, K᎐I kv᎐K, ᎐`b-gĀi ᎐kí kv᎐K e`emvq᎐| ᎐QvU ᎐`vKvb`vi evRv᎐i i ᎐QvU ᎐`vKvb`vi, PvKixR᎐we, hvbevnv, ᎐bgvbKvix, ᎐R᎐j nKvi, fvov ᎐`Iqv gwiK Ges Ab`vb`|

cvK᎐ZK mvs᎐ZK m᎐ú` t MvRxc᎐i ᎐efv᎐M A᎐bK cvK᎐ZK mvs᎐ZK m᎐ú` thgbt fvIqvj RvZxq cvK, fvIqvj RvZxq ebf᎐g fvIqv᎐j i ivRevo᎐, cxir᎐j i (Pirojali) cvK᎐ZK ᎐m᎐`h, kvZj ᎐᎐v b`x, ZivM b`x ci᎐bv epcĭ, eskx, evj I evbvi b`x mgn|

6| c᎐i᎐᎐ki m᎐ve` cfve I Zv᎐`i ckgb

XvKvi c᎐i᎐ek I cwi᎐ (DEW) cK᎐íi m᎐aviY ckgb mgn t th ᎐Kvb Waste Water Treatment Plant Gi ᎐bgvY I c᎐iPvjbv Ges Z`m᎐½ Waste Water Collection c᎐᎐Z᎐Z gvivZ᎐K ᎐ei᎐c A᎐bK ᎐᎐j cfve n᎐Z cv᎐i thgb-evq, gvU Ges cwi᎐ `I᎐bi m᎐nZ ᎐bg ᎐j᎐LZ Dcv᎐q;

- 1) CETP Gi ᎐bgv᎐b
- 2) Waste Water c᎐i᎐kva᎐b
- 3) Treatment Plant Gi Waste Sludge Gi e`e᎐cbvq
- 4) c᎐iPvjbvq Ges
- 5) CETP Gi Decommissioning

᎐bgv᎐j᎐LZ cfve mgn ᎐᎐kI fv᎐e ᎐᎐᎐Pbv Kiv n᎐q᎐Q t

MÜ, tKvjvnj, wKU cZ½i we-vi Ges ceWnZ GjvKvi mave" -v- SiK KvQvKwQ cwlb mgx GjvKvi ¶WZ mvab `lþbi cfvte DWT`Kj l cvbXKþji mave" cwieZb, fngi gj" nvm Ges Treatment Plant þ_K eR Acmvib| mvavib fvte cwiþekMZ cfve WZbcþe t`Lv hvqt

- 1) Kg-vb Dbqb ce
- 2) wbgvY ce Ges
- 3) KgKvÛ cwiPvjbv ce

Kg-vb Dbqbþbi cfve mgn

cvKwZK Rxe l MvQcvjvi -vfveWK Avevm -þji ¶WZ Ges Biodiversity

þh mKj DWTM`mgn wbgvY l Dbqb KvþR cwi-vi Kiv nþe Zvi dþj Ecological cvKwZK Avevm-j mawYiþc webó nþZ Zvþ`i cvYxKj wbgvY KvþRi mvþ_ mvþ_ weWjb nþe| Kawb Ges AbwaKvi l wbgvb KgKvÛ l DWTM` wvimþb cvbXKþji nvm NUþe G ,þjv nþ"Q cwiþeþki ewYR" hv ce t_K aþi tbqv nq| cwbi ,bv,þbi l Avþkcvþki Ecosystem Gi cwieZb G ,þQ| mvaviY ckgþbi cwigvc mgnt Waste Water Treatment Plant Gi cKþíi DþËk" nþ"Q eZgvþbi AþkvabKZ Sewage hv cvKwZK Ecosystem G cþek Kþi cwiþeþki wechq AvþQ Zv Kwgþq mnRvZ cvKwZK Drcv`þb hv Rjvkq ,wj mgx nq Ges hv A\_wbWZK fvte DbZ nq -v- mawZ Ecosystem Gi| Dbqbþbi mgq DWTM` gn AcmiY l wbgvY KvþR Zv AvZ mZKZvi mvþ_ KiþZ nþe|

awj t GUv aþi tþlqv hvq þh, wKQ cwigvb evZvm ewnZ awj i maw nq gwU KvUv l Ab`vb" KvþR wbgvY l Dbqbþb| i@ t gšmþg G Ae-vi meþPþq AebWZ nq| evZvm ewnZ awjKbv emZewoi Avþk cvþki -vþ-i Rb" SiKcY A\_ev Dþëv w`þKi evZvm wbgvY GjvKvq kvm Kþói Kvib NUvq| ZvQvov Bnv GKUv DrcvZ| awj i KgKvÛi cfve -í mgþqi Rb", Bnv ewx cvq wbgvY KgKvÛ wKš Bnv gvivZþK weLqK -v- m-úwKZ e`vcvþi|

mvaviY ckgþbi cwigvc mgn t

cekc_ Ges Dbþ³ gwU gvþS gvþS cwlb Øviv wfrv ivLþZ nþe awj Dov eÜ nq| m¶ gR`gvj wfrv ivLþZ nþe A\_ev tZicj Øviv tXþK ivLþZ nþe A\_ev tZicj Øviv tXþK ivLþZ nþe weþkl Kþi evq cevþni mgq KgPvixiv KvR Kivi mgq weþkl Kþi i@ l evh cevþni mgq Wwó gv` e`envi Kiþe|

kã `lb ( **Noise**) t wbgvY KgKvÛ fvix hšcwZ l klgKþ`i KvRKg Kg-j cwi-vi, gwU fiVU Ges iv-v wbgvY KvþR cej kþãi maw nq| hvnv nDK c-weZ CETP Kg-j Avµvš GjvKv t_K AþbK `þi, ZvB tZgb tKvb Amweav nþe bv| Kg-þj `ieZx GjvKvþZ nLqvþZ kã `lb DbZ nLqvþZ Amweav nþe bv|

mvaviY ckgþbi cwigvc mgn t

þh mKj mawcvq kã `lþb Avµvš Zvþ`iþK cþeB ciwgk t`lqv DWZ þh Zviv thb teik wei<sup>3</sup> Abfe bv Kþi| ivþÎ thb kã mawKvix tKvb hšcwZ e`eüZ bv nq| KgPvixþ`i thme hšcwZ

kã Kþi Zv thb kã eÜKvix Ask e'envi Kþi | KgPvixþ`i kã mwo hšcwZi gvÎv 80 dBA
AbeiZ 8 Nbuvi Rb" A_ev h" tekk nq Zþe Kvþb hš ewmþq Zv ïbv eÜ Kþi KvR KiþZ nþe |
KgPvixiv AbeiZ kã gvÎv 70-80 dBA nþj Aek"B Bqvi cvK e'envi Kiþe |

wbgvþbi cfve mgn t

wbgvb e⁻ mgþn Drm t

wbgvb mvgMxi Rb" evj I BU cvIqv hvq vbxq mvaviY weþµZvi KvþQ | evj msMn Kiv nq,
wbKU⁻ b`xi cv\_i Lv` t_þK | BU ^Zwi nq Kv`vgwU Ges Kqjv w`þq cwiþq | mþPZb A_ev bv
RwbþqB jvBþmÝ Qvov cþiv¶ fþte DrmwvZ nþq Gme wbgvY mvgMx µq wbl× cv_iNvZ t_þK
msMn Kiv nþj Zv cwiþeþki wechq tWþK Avþm hv evqþK `wIZ Kþi kw³nxþ wkí Ges ga⁻ I
m`i cmvix cfve tþj |

mvaviY ckgþbi cwigvc mgn t

wbgvb mvgMx Aek"B AvbþZ nþe Awdþmi jvBþmÝ cvß Ges mwVK cv_i LvZ Ges weK wdi
t_þK | mwVK jvBþmÝi Abwjwc _vKþZ nþe cix¶v Kivi Rb" Kg⁻þji wVKv`viþ`i KvQ t_þK |
wbgvb mvgMxi enbKvixZv t

weifb iKþgi wbgvY mvgMx `iKvi nþe Zv Drm nþZ Kg⁻þj enb Kþi AvbþZ nþe | enb Kiv
Gme wbgvb mvgMx weþkl Kþi AwZwi³ fvi Kivi dþj PvKbv g³ UvþKi Øviv iv⁻vNvU Kvjµþg
¶q cvß nq | th iv⁻v cvKv bq Zvi cwZ weþkl tLqv ivLþZ nþe | gmb iv⁻vi tejvq awj I
DcwPþq e⁻ mgn Drm I Kg⁻þj awjgqZv vbxq evqþK `wIZ Kþi Ges DcwPþq cov e⁻mgn
iv⁻vþK Pjvi AbcþhvMx Kþi Ges moK `NUbvi SþK \_vþK | Gme NUbv mgn cþiv¶ fþte ¶`
mgþq, cbiveiË tbvZevPK cfve tþj RbMþbi v⁻ I wbiwcËvi |

mvaviY ckgþbi cwigvc mgn t

mKj gmb gwU mgn Aek"B AveË Kþi enb KiþZ nþe hvþZ DcþP cov I awjgqZv t_þK i¶v
cvþe | iv⁻v DcþP cov e⁻ mgn gvþS gvþS mwitþq tþjv wVKv`vþii `wqZ (thgb 2 Nbuq
GKevi) hv Ab" PvjKþ`i iv<sup>-</sup>v AwZµg Kiv mnR Ges wec` g³ nþe | Gme wbgg-Kvbb
wVKv`vi wþqvþmi Clouse G Dc-wVKv`vþii Ges Fuel Gme enbKvix UvK, wj wbgvY cKþí
PjvKwjb Aek" mwVK Vehicle Ges Containing e'envi Kiþe thgb Fuel tankup Ges
Sealed druing h_vmae, wbgvY mvgMx enbKvix hvbevnþ Aek"B mgqgZ off peak
traffic hours G ivLþZ nþe |

G cxwZþZ iv⁻vi UwdK RU Ges `NUbv Kgþe | Kg⁻þji iv⁻vi hvbevnþ PjvPþji mgq | mwVK
UwdK mZKZvi wPy Kg⁻þji cþek gþL Ges MvRxc knþii gj iv⁻vq jvMvþZ nþe hvþZ
Ab`vb" hvbevnþ Zvþ`i MwZ gþi Kþi PjvPj mnR KiþZ cvþi | cZvKvevnx thb traffic
Control Kþi wbgvb mvgMx enbKvix hvbevnþK Kg⁻þj tcsQv I ewvZ nIqv t_þK mnþhvMxZv
Kþi tm e⁻v Aek"B _vKþZ nþe |

wbgvb mvgMxi fvÜvi t

WKfvte bv iVLvi Kviþb wbgvb vþbi cKZ Ges msiwqZ evj, cv_i, wmtgU BZw`i gmb I
 wgn e⁻ mKj cwbtZ atq thZ cvti tekx ewoi Kviþb, b`xZ A_ev wBKU⁻Z Kwl RwgZ|
 G, jv ia wbgvb mvgMxi AcPqB Kti bv Zv Avþkcvþki v_b wj K`gv³ Ges Zjvbx Rþg
 ciiteþki Dci wei" c cWμqvi mío Kti| cbivq Rvjvbx msMn Ges tgingZi Rb" enr
 hvevnb I hšcwZ Aek`B Kgþq[†] iVLþZ nte ZvB Zv wbgvb AÂþj (Rvjvbx I Labrador)
 gRZ iVLþZ nte| G e⁻v mæZ: `NUbv ew× tctq DcWþq civ Hydrocarbon Ges
 KjwIZ Kiv c`v\_ þašZ ntq b`xZ Ges Avþkcvþki GjvKvq Qvoþq ciþZ cvti|

mvavib ckgþbi cigvc mgn t

cKZ wbgvb mvgMx Kþgi mwnZ iVLvi e⁻v I wqšb KiþZ nte| m² `vbi e⁻ mgn (evj,
 Dei mvi) jKZ KiþZ nte tWb I Ab`vb" vþb AþbK `ti| g³ cvš iVLv cKix wbgvY
 mvgMx tXþK iVLþZ nte hvZ ewoi cwbtZ atq bv hvq| wivc` fvûvi mgn wPwýZ KiþZ nte
 Ges Zv iVLvi Rb" KvWþgv ^Zwi Kti iVLþZ nte hvZ enbKZ gvjcî mWK fvte iVLv hvq|
 SþKcb ivmvqwbK e⁻mgn (thgb Rvjvbx) mWK cvþî iVLþZ nte Ges Gþ`iþK wivcþ` ZvjvÜ
 KiþZ nte| m`úofvte mZKZvi mBbþeW (thgb, agcvb wbþla) SþKcb Waste fvûvi
 jvMvþZ nte Ges Zv e`envþii mæav_vKþZ nte|

wbgvb mvgMxi **Waste** Acmvib t

Kg⁻j c⁻Z I wbgvY KvR Kivi mgq th me Klvb RÄvj ^Zwi nq weþkl Kti DTM` KZb I
 wbgvb AveRbv (thgb bó KsμU, B`úvZ Kvþvi gÂ Ges dgv, e`vM, Ae`eüz gwU BZw`) G
 , jv wbgvb þj þbZevPK cfve tþj h` Gþ`iþK mWK e⁻vcbvq wPwýZ mivþbv vþb bv
 tþlqv nq| ciiv⁻vi Kiv DTM` mgn covþbv agRvþji mío Kti hv mæZ wbgvY Kg⁻þj
 tþbZevPK cfve tþj Ges vþ` SþK nq| D<sup>TM</sup>` gn Ges Klvb Waste h` bvgvi cþ_ tþjv
 nq Zþe Zv vbxq q` Rjvkþqi mío Kti Ges eb`v nq| q` Rjvkþqi cwlb, ciþkþl `MÜ
 Qovq Ges v` SþKi tcvKvgvKo thgb tgvvvi mío Kti| `ej wbgvY Waste e⁻vcbv GKU
 q` tþbZevPK cfve tþj|

mvaviY ckgþbi cigvc mgn t

Kg⁻þji RÄvþji e⁻v cþeB ii" Kiþe WKv`vi wbgvY KvR ii" nIqvi AvþM| G me
 e⁻vcbvq wPwýZ RÄvj fvûvi GjvKv msMn cxwZ mivþbv cxwZ Ges Zvþ`i Z`viwK I
 chþeqb e⁻v_vKþZ nte| Avia Kiv I cþqM Kivi e⁻vcvþii `vq-`wqZ_vKþe wbgvY
 KgKvþûi WKv`vþii Dci wbiþc q fvte| D<sup>TM</sup>` mgn Ges Rvjvþbv RÄvj Kg⁻þj Aek`B
 tcvovþbv Pjþe bv| cbivq e`envi Kiv hvq Ggb Waste (thgb LbbKwZ evj) Zv b`gv GjvKv
 tþK `ti c KiþZ nte Ges cþqvRþb fivþUi KvþR jvMvþZ nte| AcþqvRbxq wbgvb
 Waste thgb bó cvBc mgn, wbgvb KvWþgv Ges Ab`vb" wbgvb e<sup>-</sup> mgn, Aek`B wbió
 RgvKZ vþb tþjþZ nte|

Ab`vb" RÄvþji e<sup>-</sup>vcbv t KgPvixþ`i Achvß UqþjU bv_vKþj Ri"ix wfwËþZ wRb GjvKvq
 Zviv gjZ`M Kti, Zv Aeþkþl v`nvbx NUvq I `MÜ Qovq| gkv-gwQi AvMg NþU| Lveþii

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†gšjK h³ MnbthvM^ˆ vbxq wk¶Z cWôvb mgn^ˆ vbxq miKvix Awdmv^ˆi | cwb^ˆ l†bi mv^ˆ
 RbMb I ZŠ e^ˆ3†i A†bK gj^ˆ RloZ gj^ˆUv^ˆ l†bKvix†i A†bK gj^ˆ RloZ gj^ˆUv^ˆ
^ˆl†bKvix†i e^ˆn^ˆ KvR | KŠ AvšRwZK fv†e bVwMik†i (Zv†i^ˆ v†^ˆ gva††g) Ges
 (RbM†bi cWôvb mgn RbM†bi^ˆ i¶vq LiP Ges ¶WZ ci†bi Rb^ˆ A^ˆ c^ˆvb) †mB Kv†Ri
 djvdj^ˆ i/c cKí h†ó BwZevPK cfve †dj†Z cv†i mdj fv†e cwb^ˆ ,bv, b cwieZb Ki†Z
 cv†i evQvBKZ GjvKv†Z DfqB cwb^ˆ cvc^ˆZv mv^ˆ mv^ˆ cwb^ˆ evwNz †ivM wejß nIqv (we†kl
 K†i Pg-maúwKZ) |

cwi†ek I mvgwRK e^ˆem^ˆ vcbvi KvVv†gv |

cwi†ek I mvgwRK e^ˆe^ˆ vcbvi KvVv†gv **(ESMF)** Gi D†ĭk^ˆ t ESMF Gi D†ĭk^ˆ n†Q
 cwi†ek I mvgwRK gj^ˆvqb Ges e^ˆe^ˆ vcbv^ˆ Zwi Kiv hv†Z msw¶ß fv†e eYbv Kiv^ˆ vK†e KvHKi
 cwi†ek I mvgwRK cevn mgn^ˆni Av^ˆk bgbv mn†hVwMx cwiKíbv, bKkv cbqb, Kv†h cwiYZKib
 Ges c†ii Kv†h cwiYZ Kv†bi KvR ,wj we†ePbv K†i hv DEW cKí Ges Ziv^ˆ c^ˆvb Ki†e
 wb†^ˆkbv wKfv†e cv^ˆwgK cwi†ek cix¶vKib (IEE) cwi†ek cfv†ei gj^ˆvqb (EIA) Ges Zwi
 Ki†e cwi†ek e^ˆe^ˆ vcbv (Kgv†bv Ges Dc†^ˆk †^ˆ lqv) cwiKíbv (EMP) hv cKíi †bWZevPK
 cwi†ek^ˆki cfve ,wj Kvg†q †^ˆ†e Ges ZivšZ Ki†e BwZevPK cwi†ek I mvgwRK cfve mgn^ˆni
 hv^ˆ Kvib cKí n††¶c Kiv | cKí GUv wbwðZ K†i †h cwi†ek^ˆki we†ePbv mgn h†ó g†bv†hVwMx
 ,iZ I cfveZ Ki†e CETP Gi bKkv cYq†b | cwi†ek^ˆ GUv enb Ki†e IEE Ges EIA
 mKj CETP Gi Ges cvBc mS†ni Network mg^ˆb h³ CETP.

ESMF Av†jwKZ Ki†e mvaviY Avi¶v (k•Ljv kwš I AvBb i¶v Kivi e^ˆe^ˆv) w^ˆK wb†^ˆkbv,
 bKkvq †h wbgq ev^ˆe fv†e gvbv nq (Code of Practice) Ges cxwZ Gfv†e we†ePbvq
 †bIqv n†e hv†Z cwi†ek I mvgwRK wó†Kv† ††K cKíi bKkv Zwi nq | bwx†Z I w^ˆK
 wb†^ˆkbvq jwMqv^ˆ vK†Z n†e Ges KvHKi cwi†ek cevn^ˆni vwcZ e^ˆ ESMF mvnv^ˆ Ki†e KvH
 cwiBZ Kivi cWwba†Z †hgb PMU wbwðZ Kiv gZ w^ˆ†q miKvix Ae^ˆv Ges msNex wbg†gi
 wbgšb Kiv Ges Bvvi mwnZ cwi†ek Ges mvgwRK wbi^ˆvc†^ˆ i¶v Avi¶v vek e^ˆvs†Ki |

cwi†ek^ˆki gj^ˆvqb, cbix¶b Ges Dc†^ˆóv XvKvi cwi†ek I cwb DEW maúKZ cKí |
 cwi†ek^ˆki gj^ˆvq†bi Dc-As†k cwiQb Drcv^ˆb I CETP wefb cwi†ek Dcv^ˆv†bi^ˆ iKvi n†e
 wefb KgKv†Ů †hgb, wbgv†bi c†e wbgvb I cwiPvjbv Ges i¶bv†e¶b ce | G,†jv n†Q:

cvKwZK cwi†ek

gvU - ¶†qi SıK, gvU^ˆi ,bv, b^ˆ l†b |

maú^ˆ mgn - Rvjvbx/ we^ˆr, wbgvb mvGMx-cv^ˆi, BU, Aggregates Rwg we†kl K†i AbbZ
 Ges A^ˆev Kıl Rıg |

cwb - b^ˆxi Zj†††ki e^ˆvL^ˆv I cwieZb, Aquifer Gi cwieZb, cwb^ˆ ,bv, b /^ˆ l†b |

evq I kã - evqi ,bv, b, kã^ˆ l†b |

%Re cwi†ek cW^ˆ e cvYxKj - Nv†m Ges d†j cfve Mv†Q I jZvcvZvq, Pv†li Rıg†Z SıKcY
 cZ½, cW^ˆ e Rš Dı††^ˆ i vfvweK Avevm^ˆ ††j we¶ßZv, Rš / Dı††^ˆ i vfvweK

AvevmTM j i Amleav kã I Káúþb, wefb iKþgi MvQcvjv I cvYxi TMÍZv
(Biodiversity)

RjR DTM I cvYxi evmTM vb - DTM I cvYxi TMfvieK AvevmTM j Acmb Habita Gi `lb,
RjR DTM I cvYxi Rxb hvčþbi nvm|

mvgvRK cwiþek

A_bxZ t

bZb A_bxZi KgKvþÛi mío, mæúËi ewbRTMK gjTM, TMvqx I ATMvqx KgþTMþi mío, kþmTMi
cWZμqv, Farmland Gi DrcvTMþbi nvm, eTMvenvix Ges eTM3MZ eTMvenvqx th eTMvenvþq SIK
þbq Zv, iTMvKvix, weþTMkx A_i TMvKvix|

þckvTMviþTMi TMvTM t

TMNubv ATMvqx TMvþTMi djvdj, TMxNKvj TMvqx TMvþTMi djvdj, TMxNKvj TMvqx TMvþTMi djvdj,
gvivZK TMvþTMi djvdj|

þckvMZ t

Rigi eTMenvi, tmšTMh weÁvb weIqK Ges gvbweK mleav|

DcvTMvb 2 Gi kþZ, AvšRTMZK eTMvenvqx cWZóvb DcþTMóv wbtqvM Kiv nþe miKvixfvþe wnmvþei
RbTM wefb Factory , wji TMQ DrcvTMb nþe TMQ hviv weþPbv Kiþe cwiþeki cfve wKfvþe
cwiTMQb DrcvTMþb AskMnY Kiþe Ges cTMweZ gjTMvqb KigvUþZ Zvi cwigv Kiþe| cWZþeTMb
^Zix nþe wbh³ DcþTMóv mnþhvMxZvi gvaTMþg hviv eTMvenvþq SIK þbq Ges Factory eTMveTMvcbvq
ZLb, BnvB nþe TMZš Factory eTMvcTMvcbv hv TMþK Zviv ZvþTMi wBRTM evrmTMiK evav Acmbib
mbTMcÎ cvþe cwiþek AwaTMþi TMþK (DoE) Zv ZvþTMi cwiTMQb DrcvTMb cTMxZþZ h³ nþZ
mnvnhTM Kiþe|

cwiþeki gjTMwbbvqK Kiv nþe CETP Gi wØZxq avþc| mgvšivþj wnmve þjbTMþbi DcþTMóv
mæúb Design Kiþe RbMþYi eTM3MZ AskMnYKvixTMi (PPP) Model wbgvþY, mvaTMvqR
Mþelbv Ges KwiMix Kvwþgv Gi RbTM AvšRTMZK eTMvenvqx cWZóvb wbh³ Kiþe, mæúb
cwiþeki gjTMwbYvqK Kiþe evQvBKZ CETP Gi gþbvqvb hvnv mivK KgTMj Ges ^Zix Kiþe
cwiþek eTMveTMvcbvi cwiKíbv Gi gjTMmn|

Design wbgvb I cwiPvjvvi wKvTMvi enb Kiþe cbivq cwiþek gjTMvqþbi MnbþhvMTM gþbvqvb|
cwiþek I mvgvRK (EAs) gjTMvqþbi cb: cixTMv mivKfvþe cþqvRb nþe cKí cTMvebv mTMxvš
wbþZ Ges wvðZ nþZ nþe þkl djvdþji Ges Dcmsnþi ejv hvq Kvþ cwiBZ Kivi avc
AMeZx| cbixTMþb `B avþc KiþZ nþe| c_gZ Kvþh cwiBZ Kivi cWZwbaþZi chvq þhgb,

LGED Ges ᄆZxqZ cwiᄆek Awa`ᄆi (DoE) Zv, ᄆbqšZ `j | LGED Zv e`ve`vcbvi e`w<sup>3</sup> ᄆb<sup>3</sup> Kiᄆeb GKRB RvZxq cwiᄆe`we` cKí PjvKwjb, ᄆZb cbixᄆb Kiᄆeb mǎúb Design, cwiᄆeᄆki gj`vqb Ges chvᄆ cwiᄆek e`ve`vcbvi cwiKíbvi | Bnvi mǎnZ, GKRB AvšRwZK cwiᄆekwe` bZbfvᄆe mieivn Kiᄆeb LGED ᄆᄆK ᄆPwb ᄆbiᄆcᄆᄆ fvᄆe mvgwRK gj`vqb (EA) Kiᄆeb bKkv (Design) Zv ᄆbgvY Ges cwiPvjbi (DBQ) ᄆVKv`vi Ges ᄆbᄆZ Kiᄆeb cwiᄆek mǎúKZ meᄆKQ ᄆhb ᄆᄆ\_ófvᄆe ᄆkl Design G`vb cvq | cwiᄆek Awa`ᄆi, hviv ᄆkl cwiᄆek cbixᄆb weᄆkl Kg`ᄆji Kgcevᄆ Ges cwiᄆek eva`g<sup>3</sup> mb`cĭ ᄆbᄆZ mg_b I MnbᄆhvM` nᄆe IEE Ges EIA Gi cwiᄆǎúᄆ` Ges ᄆw` Zv mšIRbK nq Ges ZLb cKí Kg`vb I cwiᄆek eva`g<sup>3</sup> mb`cĭ c`vb Kiᄆe | DoE Gi e`ve`vcbv GKk I mg\_b Kiᄆe GKRB `ᄆ cwiᄆekweᄆ`i | mKj cwiᄆek gj`vqᄆbi bᄆ_cĭi `iKvi nᄆe wek e`vsᄆKi eva`g<sup>3</sup> mb`cĭ cKí Kvᄆh cwiᄆZ Kivi AvᄆM | cwiᄆek e`ve`vcbvi cwiKíbvi (EMP) mš`v cKí Kvᄆh cwiᄆZ Kivi Dcᄆ`óv ᄆnmvᄆe weᄆfb chvᄆq Kvᄆᄆg Kiᄆeb | mǎúb cwiKíbvi mǎnZ msh³ _vKᄆe Dcᄆ`óvᄆi bKkv Kiv Ges Zv mgvᄆ Kiᄆeb cKí Kvᄆh cwiᄆZ Kivi c\_g cᄆe (Phase-I) ᄆbæjwLZ Rgi mᄆgvbvi gvwjKmgᄆ (Stakeholders) ᄆb<sup>3</sup> \_vKᄆeb Dcᄆ`óv ᄆnmvᄆe cwiQb Drcv`b I (CETP) ᄆbgvᄆb:

`Zš (Factory) gvwjKe` cZ`n ᄆfᄆĖᄆZ cwiQb Drcv`b Gi Rb` bKkv, ᄆbgvY I cwiPvjbi (DBO) cZ`n ᄆfᄆĖᄆZ CETP Gi Rb` ᄆVKv`vi |

LGED (Dcᄆ`óvmᄆ) mᄆᄆvᄆK ᄆfᄆĖᄆZ CETP Ges gvwᄆK ᄆfᄆĖᄆZ mᄆVK Drcv`b Gi Rb` |

`vbᄆq mǎú`vqmᄆᄆ: gvwᄆK ᄆfᄆĖᄆZ (CETP) Gi Rb`

ᄆkí mš`v : gvwᄆK ᄆfᄆĖᄆZ CETP Ges cwiPb Drcv`ᄆbi Rb`

wek e`vsK/ ZZxq `j : Aa evrmwiK CETP Ges cwiQb Drcv`ᄆbi Rb` |

mvgwRK gj`vqb Ges cbemᄆ Kgčšvi KvVvᄆgv

cvᄆ fᄆg Ges KvVvᄆgv ᄆblqvi AvᄆM Ges ᄆbgvY KvᄆRi AvᄆM cKí Øviv ᄆᄆZM` Aᄆaevmᄆᄆ`i (PAP) Zvᄆ`i ᄆᄆZciY I Ab`vb` KvᄆR mǎúb mᄆᄆhvMxZv KiᄆZ nᄆe | ᄆLb PAP ᄆ`q bZb `vᄆb AvVvᄆbvi Rb` ᄆjwceᄆ Kiv nᄆe, ZLb bZb `ᄆbᄆUi Dbqb cᄆeB KiᄆZ nᄆe Zvᄆ`i ᄆmLvᄆb AvVvᄆbvi AvᄆM | (LGED) `vbᄆq miKvi cᄆKškj Awa`ᄆi, Kvᄆh cwiᄆZ Kivi gva`g Aek`B ᄆbᄆZ fvᄆe mKjᄆK hviv ᄆᄆZM` Zvᄆ`iᄆK Av`k Rᄆeb hvᄆᄆbi Rb` mKj ᄆᄆZciY Kᄆi cKᄆíi KvR cᄆi `i` Kiᄆeb Ges ᄆw` mᄆe nq, Zvi Dbqb Kiᄆeb |

GB cbemᄆ KvVvᄆgv (RPF) LᄆR ᄆ`ᄆZ ᄆw` Achvᄆ ᄆKvb eZgvb AvBᄆb kZ ᄆv cKᄆji cᄆqvRᄆb wek e`vsK (WB) KZK Ab`vᄆb AvᄆjᄆPZ nᄆqᄆQj cᄆei Asᄆk | Aᄆbᄆ`QK cbemᄆbi ᄆZbU cᄆqvRbᄆq Dcv`vb, ᄆj nᄆ`Q:

1) mǎúZi Rᄆekv Ges Avᄆqi ᄆᄆZmgᄆni ᄆᄆZciᄆ c`vb |

2) bZb⁻v#bi mn#hwmZv, msh³ kZ Abhvqx bZb⁻v#bi mVK mweav Ges tmev mg#ni e⁻ve⁻v Kiv|

3) cbevmZ Aaevm#`i GKB mweav Ki#Z n#e Zv#`i g^{1/2}#j i Rb⁻ cK#í i c#qvR#b|
G₅#jv w¹b¹ðZ Kiv hv#e w¹b¹æjwLZ gj D#í#k⁻:

1) weiz _vK#Z n#e A%b¹QK cbeymb tmlv#b Zv m#e, Ges cbeymb Kgv#Z n#e thLv#b RbMb#K miv#bv Acwinv|

2) GUv w¹b¹ðZ n#e th m#i hv lqv RbmsL⁻v ¶wZciY Mnb K#i#Q, mn#hwmZv Ges cbeymb Rb msL⁻v th tgv#Ui Dci GKB mweav cvß nq h¹ cKí bvl _v#K|

3) cK#í ¶wZM⁻ RbmsL⁻v (PAP) tK cK#í i Ae⁻vb t#Z n#e|

4) cK#í i mxgvbvi gwjKM#bi Ges (PAP) mn civgk Ges c#`q ms#hwm mweav hv cK#í AskMny Kiv Kv#R Zv e⁻em#Z, cK#í i bKkv Kv#h cwibZ Kib Ges cKí Pvjv#bvi mgg AenZ Ki#Z n#e|

5) hviv cK#í i Kv#Ri bv msiw¶Z bq Zv#`i#K AwZ¹ i³ mn#hwmZv Ki#Z n#e|
w¹b¹æjwLZ #gšwjk tky₅#j i cenb/ cfve Av#M t⁻L#Z n#e GB AwaKv#i i KvVv#gv:

1) Rigi ¶wZ

2) KvVv#gvi ¶wZ

3) RweKv Drmi ¶wZ

4) mnaviY m#ú` I mweavmg#ni ¶wZ

5) RbM#Yi AeKvVv#gvi ¶wZ

GKwU Av`k cK#í i m#eYvP tPóv m#Zi t<sup>-</sup>Lv hvq Awb<sup>1</sup>QvKZ cbevmvb, Zv#Z wKQ AmZó bvMwiK \_v#K| LGED tPóv Ki#e cKí chv#q w<sup>1</sup>^jxq e<sup>-</sup>v<sup>-</sup>vcbvq Pw<sup>3</sup> i c#e Av#jvPbv Ki#e m#e<sup>-</sup>v#qi tbZv#`i Ges (PAP) Gi c#w¹b¹waZKvix#`i mv#_|

LGED w¹b¹qvM t⁻#L c#qvRbxq m#úv mgq t⁻lqv i KgKZv mn#hwmZv t⁻#e mvgwRK w¹bivc#v i ¶vi `¶ Dc#`ón, whwb me¶Y ch#e¶Y Ki#eb cbeymb c#wZi| Gme e⁻ve⁻vcbv LGED L#R cv#e Ges mVK gj Dcv# hv cbevm#bi g⁻ cfve t⁻#K g³ Ki#e| ch#e¶YKvix KgKZvMb mgq mgq Kg AMMiZi c#wZ#e`b tck Ki#eb cKí cwiPvj#Ki w<sup>1</sup>bKU| ch#e¶Y#bi gj D#í#k<sup>-</sup> n#jv c#wZ#e`b t⁻#L eSv hv#e tKv_vq cbeymb Kv¹h¹Kvix Ges c#qvR#b cwieZ#bi civgk w⁻#Z cvi#eb|