

**ENVIRONMENT AND SOCIAL MANAGEMENT AND MONITORING PLAN**  
**LAISAMIS WATER SCHEME, WITHIN LAISAMIS SUBCOUNTY, MARSABIT COUNTY**

| E & S Impacts  | Source of Impacts  | Proposed Mitigation Measure  | Monitoring and Measurement   | Responsible Entity                        | Supervising Agency                        |
|--|--|--|--|---|---|
| <b>Preconstruction Phase</b>   |  |  |  |   |   |
| <b>Land acquisition</b><br>Loss of pasture land<br>Fencing of land restrict free movement of animals and people.<br>Grievances related to land take/transfer | The project activities entail installation of solar panels and 2# pumping system, construction of 1# reinforced concrete tank of 200m <sup>3</sup> tank, construction 1# sanitation facility, and construction of 1# water kiosk as well for Laisamis Borehole scheme. The scheme will require approximately 4650 m <sup>2</sup> (1.39 acres) The land is expected to be transferred from community to public ownership. | <ul style="list-style-type: none"> <li>The project alignment must avoid private land as the project component include outright land acquisition</li> <li>Align water pipelines along public roads and spaces to avoid any physical and/or economic displacement as much as possible, or infringement on the land rights holders</li> </ul> | Approved project design with that is not affecting private land owners | Engineering consultant<br>E&S Specialists | WSTF<br>MoWSI                             |
|  |  | <ul style="list-style-type: none"> <li>Complete the process of land transfer from community to public before the operation of the project</li> </ul>   | Valid allotment letters/title deeds for the scheme                     | MARWASCO<br>County Government of Marsabit | WSTF<br>National Land Commission          |
|  |  | <ul style="list-style-type: none"> <li>Hold community consultations to discuss the final design of the scheme, the associated impacts and project implementation timelines before construction</li> </ul>  | Minutes of disclosure meeting, Agenda and attendance register          | MARWASCO<br>County Government of Marsabit | WSTF<br>NEMA                              |
|  |  | <ul style="list-style-type: none"> <li>Follow the land take procedures outlined in the project ESMF</li> </ul>   | Compliance report  | Consultant                                | WSTF<br>MoWSI<br>National Land Commission |
| <b>Construction Phase</b>  |  |  |  |   |   |

| E & S Impacts                       | Source of Impacts  | Proposed Mitigation Measure   | Monitoring and Measurement  | Responsible Entity                       | Supervising Agency |
|-------------------------------------|--|---|---|--|--------------------|
| Potential soil Erosion              | Site Excavation, Earthworks for Construction Works:<br><br>Clearing vegetation for borehole infrastructure, water kiosks, pipelines, and livestock water troughs,<br><br>Excavation of trenches for foundations and trenches,<br><br>Storage of excavated spoilt soil and construction materials,<br><br>Uncontrolled surface run-off from construction site<br><br>Spillage of water during borehole testing, | <ul style="list-style-type: none"> <li>Develop and implement soil erosion control measures</li> </ul>   | Number of soil erosion control measures in the program of works, amount of resources set for soil erosion control | Contractor<br><br>Supervision Consultant | NEMA               |
|                                     |  | <ul style="list-style-type: none"> <li>Minimize and restrict vegetation removal to the project footprint.</li> </ul>  | Project design that considers areas with minimal vegetation, Amount of vegetated area spared by the project       | Supervision Consultant                   |                    |
|                                     |  | <ul style="list-style-type: none"> <li>Expedite back-filling and compaction of excavated soil.</li> </ul>   | Number trenches that are backfilled and compacted   | Contractor                               |                    |
|                                     |  | <ul style="list-style-type: none"> <li>Use existing access tracks to minimize the need for new tracks.</li> </ul>   | Number of enforcement measures to ensure use of the existing routes during site access                            | Contractor                               |                    |
| Soil and subsurface water pollution | Spills of the fuel and hazardous chemicals stored at the site, fugitive spillage of fuel and used oil from equipment, poor management of construction and sanitation waste   | <ul style="list-style-type: none"> <li>Develop and implement soil pollution prevention measures to include storage of chemicals, procedure for fuelling at the site and</li> </ul>            | Availability of soil pollution measures in the program of works   | Contractor/<br>Supervision Consultant    | WSTF<br>NEMA       |
|                                     |  | <ul style="list-style-type: none"> <li>Ensure the waste oil, fuel, lubricants and other chemicals stores have an impervious surface</li> </ul>  | Number or availability of fuel and chemical stores with impervious surface  | Contractor/<br>Supervision Consultant    | WSTF               |
|                                     |  | <ul style="list-style-type: none"> <li>training workers on handling of the hazardous materials/wastes; provide appropriate tools/equipment for transfer of the hazardous materials</li> </ul> | Training records and plans, attendance lists, number of workers trained   | Contractor/<br>Supervision Consultant    | NEMA               |
|                                     |  | <ul style="list-style-type: none"> <li>Regular maintenance of machinery to control leaks.</li> </ul>  | Program of equipment maintenance  | Contractor/<br>Supervision Consultant    | WSTF               |

| E & S Impacts  | Source of Impacts  | Proposed Mitigation Measure  | Monitoring and Measurement   | Responsible Entity                   | Supervising Agency |
|--|--|--|--|--------------------------------------|--------------------|
|  |  | <ul style="list-style-type: none"> <li>Engage NEMA registered waste handler</li> </ul>   | Valid waste handler license and filled waste tracking sheets               | Contractor/Supervision Consultant    | NEMA               |
|  |  | <ul style="list-style-type: none"> <li>Maintain spill response kits at the site.</li> </ul>  | Availability of a complete spill kit at the site                           | Contractor/Supervision Consultant    | WSTF               |
|  |  | <ul style="list-style-type: none"> <li>Use of drip trays when carrying out minor servicing of equipment and fueling at the site</li> </ul>                     | Availability of operational drip trays at the equipment servicing area     | Contractor/Supervision Consultant    | NEMA               |
| Air pollution through generation of excess dust<br><br>Nuisance to neighbours<br><br>Impaired visibility;  | Construction activities including Clearing vegetation, grading, and excavation works, use of cement, movement of vehicles and equipment.<br><br>Wind blowing on bare surfaces and potential dust storms<br><br><b>Demolition works:</b> Removal of old, worn-out infrastructure or equipment | <ul style="list-style-type: none"> <li>Sprinkle water on dusty surfaces to suppress dust at the site and when working near dust sensitive receptors</li> </ul> | Evidence of watered working areas where applicable                         | Contractor/Supervision Consultant    | WSTF<br>NEMA       |
|  |  | <ul style="list-style-type: none"> <li>Equip workers who are directly in the location where dust is dispersed with dust masks.</li> </ul>                      | Number of workers with appropriate dust masks                              | Contractor                           |                    |
|  |  | <ul style="list-style-type: none"> <li>Training the workers on air quality hazards</li> </ul>  | Air Quality Training included in the EHS staff induction, training records | Contractor<br>Supervision Consultant |                    |
| Exhaust emissions from equipment & vehicles<br><br>Nuisance to workers and surrounding<br><br>Contribution to Greenhouse effect (global warming) | <b>Exhaust emissions</b> from vehicles, including particulate matter (PM), carbon monoxide (CO), and nitrogen oxides (NOx), can contribute to air quality deterioration and pose health risks  | <ul style="list-style-type: none"> <li>Scheduled maintenance of the machinery to reduce emissions including carbon monoxide, oxides of nitrogen.</li> </ul>    | Evidence of site specific equipment planned maintenance schedule           | Contractor/Supervision Consultant    | WSTF<br>NEMA       |

| E & S Impacts  | Source of Impacts  | Proposed Mitigation Measure   | Monitoring and Measurement   | Responsible Entity                 | Supervising Agency   |
|--|--|---|--|------------------------------------|--|
| Noise and vibrations causing nuisance to the public                                  | Material transportation: Movement of trucks and loaders.<br><br>Excavation and construction: Digging and concrete works.<br><br>Use of powered equipment.<br><br>Borehole testing: Noise from pump flow tests. | <ul style="list-style-type: none"> <li>All Construction near noise sensitive receptors like schools, hospitals and residential houses should implement measure to minimise production of extra noise .</li> </ul>   | Noise control measures included in the program of works  | Contractor/ Supervision Consultant | NEMA<br><br>County Department of Environment                 |
|  |  | <ul style="list-style-type: none"> <li>All equipment should be maintained in good mechanical order and fitted with the appropriate silencers, mufflers, or acoustic covers where applicable. Lubricating and regular repair of equipment and machinery.</li> </ul>  | Relevant planned maintenance scheduled of the equipment available at the site, noise rating of the equipment | Contractor/ Supervision Consultant |  |
|  |  | <ul style="list-style-type: none"> <li>Pneumatic drills and other noisy appliances should not be used after normal working hours.</li> </ul>  | Evidence of no night working policy at the site  | Contractor/ Supervision Consultant |  |
|  |  | <ul style="list-style-type: none"> <li>Workers exposed to occupational noise should be given noise protection equipment such as earmuffs and be taught how to use them and supervised to ensure such safety procedures are being adhered to.</li> </ul>   | Number of workers working in noisy environment with appropriate PPE for noise                                | Contractor/ Supervision Consultant |  |
|  |  | <ul style="list-style-type: none"> <li>The public should be informed that short periods of noise may be inevitable but prior warning of when noisy activities are to take place and the days and times noise of when they could be expected should be widely publicized before the activity takes place.</li> </ul> | Noise warning signs where applicable, evidence of noise agenda in the community consultation meeting         | Contractor Supervision Consultant  |  |
| Loss and disturbance of the vegetation<br><br>Introduction of alien invasive species | Site clearing, Excavation works, and pipeline laying disrupt habitats.<br><br>Movement of vehicles on the vegetated areas  | <ul style="list-style-type: none"> <li>Mature trees and vegetation outside project site will not be cleared.</li> </ul>   | Evidence of Measures implemented to avoid clearing mature trees and vegetation outside project site          | Contractor/ Supervision Consultant | Kenya Forest Service/ NEMA/ County Department of Environment |
|  |  | <ul style="list-style-type: none"> <li>Evidence of no use of herbicides/ pesticides for vegetation clearing</li> </ul>  | Evidence of proper methods applied to clear vegetation   | Contractor                         | NEMA/ County   |

| E & S Impacts  | Source of Impacts  | Proposed Mitigation Measure   | Monitoring and Measurement   | Responsible Entity   | Supervising Agency  |
|--|--|---|--|--|---|
|  |  | <ul style="list-style-type: none"> <li>Re-vegetation of disturbed areas with native plant species.</li> <li>Control of invasive alien plant species through monitoring and physical/manual removal of invasive species as they appear as well as routine cleaning of newly deployed machines to the sites</li> </ul>                      | <p>No of tree seedling planted</p> <p>Availability and implementation of measures to identify and control alien species</p>  | <p>Contractor</p> <p>Contractor</p>  | <p>Department of Environment</p>  |
| Disturbance of fauna   | Excavation, vegetation clearing, and pipeline laying disrupt existing minimal fauna in the project area  | <ul style="list-style-type: none"> <li>Avoid clearing mature trees that are important habitats for birds and other small animals</li> <li>Create awareness among project staff (esp. plant operators) and local community on animal welfare and against animal harassment.</li> <li>Protection of the encountered wild animals</li> </ul> | <p>Evidence of Measures implemented to avoid clearing mature trees and vegetation outside project site</p> <p>No of workers sensitized on protection of animals</p> <p>Availability, Awareness and implementation of measures to protect stray animals</p> | <p>Contractor/Supervision Consultant</p> <p>Contractor</p> <p>Contractor</p> | <p>Kenya Forest Service/ Kenya Wildlife Service</p> <p>Kenya Wildlife Service</p> <p>Kenya Wildlife Service</p>         |
| Traffic incidents and accidents including nuisance to the community, violation of traffic rules, traffic disruptions | <p>Increased vehicles: More construction and supply vehicles on local roads.</p> <p>Narrow roads: Existing roads unable to accommodate increased traffic.</p> <p>Construction activities: Blockage or diversion of roads during works.</p> | <ul style="list-style-type: none"> <li>Engage the road authority where the project will undertake road crossing and use of road reserve.</li> <li>Excavation of trenches should be carried in consultation with the concerned road authorities.</li> </ul>  | Evidence of consultation with relevant road departments and agencies where applicable  | Contractor/Supervision Consultant  | <p>Kenya Highways Authority (KeNHA)</p> <p>Kenya Rural Roads authority (KERRA)</p> <p>County Government of Marsabit</p> |

| E & S Impacts                                 | Source of Impacts  | Proposed Mitigation Measure  | Monitoring and Measurement   | Responsible Entity                                | Supervising Agency            |
|---|--|--|--|---|-------------------------------|
|   | Heavy equipment: Slow-moving machinery disrupting traffic flow.              | <ul style="list-style-type: none"> <li>Erect warning signs of on-going works when pipeline crosses the road.</li> </ul>  | Availability of appropriate safety signs at the road crossing point      | Contractor  | County Government of Marsabit |
|   |  | <ul style="list-style-type: none"> <li>Adequate care/caution is taken so as not to cause any hindrance to the movement of traffic.</li> </ul>  | Traffic (vehicle, human and livestock) control measures where applicable | Contractor  | County Government of Marsabit |
|   |  | <ul style="list-style-type: none"> <li>Alternatives access ways should be communicated to the community where road cutting is taking place</li> </ul>  | Number and condition of the provided alternative routes                  | Contractor  | County Government of Marsabit |
| Short-term disruption of community activities | Excavations along home accesses, business access and roads.                  | <ul style="list-style-type: none"> <li>Implement the stakeholder engagement plan to ensure timely project information sharing with the community and stakeholders.</li> <li>Alternatives access ways should be communicated to the community.</li> </ul> | Community consultation plan, number of consultation meetings             | Contractor/<br>Supervision consultant<br>MARWASCO | MARWASCO                      |
|   |  | <ul style="list-style-type: none"> <li>Hoarding and installation of safety signs on road crossings.</li> </ul>   | Number of appropriate road signs installed                               | Contractor/<br>Supervision consultant<br>MARWASCO | MARWASCO                      |
|   |  | <ul style="list-style-type: none"> <li>Provide diversions or temporary passages where roads are closed due to works.</li> <li>Provide temporary accesses to business and homes on excavated sections.</li> </ul>   | Number and condition of the provided alternative routes                  | Contractor/<br>Supervision consultant<br>MARWASCO | MARWASCO                      |
| Labour conflicts and forced labour            | Recruitment and salary/wages conflicts, working conditions and forced labour | <ul style="list-style-type: none"> <li>Implement site labour management procedures for the project based on the project LMP</li> </ul>   | Availability of the site specific LMPs                                   | Contractor<br>supervision consultant              | WSTF                          |
|   |  | <ul style="list-style-type: none"> <li>Contractors to be trained on the LMP for the project before site mobilization</li> </ul>  | Training records and attendance list                                     | supervision consultant                            | WSTF                          |

| E & S Impacts | Source of Impacts | Proposed Mitigation Measure   | Monitoring and Measurement  | Responsible Entity | Supervising Agency |
|---------------|-------------------|---|---|--------------------|--------------------|
|               |                   | <ul style="list-style-type: none"> <li>Developing and implementing criteria (skills and qualifications) for all positions due for recruitment.</li> </ul>   | Availability of recruitment criteria,<br>number of workers engaged through the criteria   | Contractor         | WSTF               |
|               |                   | <ul style="list-style-type: none"> <li>All the project workers to undergo induction and to be engaged formally via contract with start date, end date, job description, wage, disciplinary measures among others</li> </ul> | Formal contracts the workers<br>Number of workers with contract   | Contractor         | WSTF               |
|               |                   | <ul style="list-style-type: none"> <li>Documenting relevant worker information including terms of employment.</li> </ul>  | Well documented worker information  | Contractor         | WSTF               |
|               |                   | <ul style="list-style-type: none"> <li>Ensure equal opportunity and fair treatment during recruitment.</li> </ul>   | Formal commitment by the consultant to offer equal opportunities<br>Number of workers recruited at Laisamis Scheme area through transparent process | Contractor         | WSTF               |
|               |                   | <ul style="list-style-type: none"> <li>Protection of workers' legal right to form unions or other workers' organizations of their own choosing and to bargain collectively with their employers.</li> </ul>                 | Human Resource Policy with workers' rights  | Contractor         | WSTF               |
|               |                   | <ul style="list-style-type: none"> <li>No employment of underage persons (under 18 years).</li> </ul>   | ID for all the employed persons, evidence of no child engaged   | Contractor         | WSTF               |
|               |                   | <ul style="list-style-type: none"> <li>Implement the workers grievance mechanism for all direct workers and contracted workers.</li> </ul>  | Availability of GRM that is relevant to Laisamis Scheme site  | Contractor         | WSTF               |

| E & S Impacts  | Source of Impacts  | Proposed Mitigation Measure  | Monitoring and Measurement   | Responsible Entity                                  | Supervising Agency |
|--|--|--|--|---|--------------------|
|  |  | <ul style="list-style-type: none"> <li>Compliance to labour relations practices as provided for by Kenya legislations and International Labour Organisation;</li> </ul>  | Legal register for the lot   | Contractor  | WSTF               |
|  |  | <ul style="list-style-type: none"> <li>Advertising at the local villages and markets for any position that needs to be filled; and</li> </ul>  | Number of job adverts placed in the chief's office or common public area at Laisamis Scheme area | Contractor  | WSTF               |
|  |  | <ul style="list-style-type: none"> <li>Sub-contractor requirement to submit a past forced labor performance declaration, and a declaration of ongoing Bidder commitment to prevent, monitor and report on any forced labor.</li> </ul>   | Evidence of submitted forced labor performance declaration                                       | Contractor  | WSTF               |
|  |  | <ul style="list-style-type: none"> <li>Include in contracts with subcontractors/ suppliers/ manufacturers of materials (pipes, fittings, solar panels and equipment) obligations to prevent Forced Labor among the staff, employees, workers and any other person employed or engaged by the Subcontractor/ supplier/ manufacturer.</li> </ul> | Formal commitment to prevent forced labour   | Contractor  | WSTF               |
| <p>Social tensions: Potential conflicts between local communities and incoming workers over jobs, resources, or land.</p> <p>Public health risks: Influx of workers may lead to the spread of infectious</p> | Increased competition for local resources: food, water, and other community resources. | <ul style="list-style-type: none"> <li>Prioritize local labour force.</li> </ul>   | No of workers from Laisamis Scheme area employed in the project                                  | Contractor/u<br>pervision<br>consultant<br>MARWASCO | WSTF               |
|  | Social tensions:<br>Unresolved workers<br>grievances                                   | <ul style="list-style-type: none"> <li>Regular community engagements.</li> </ul>   | No of community<br>engagements   | Contractor/<br>MARWASCO                             | WSTF               |
|  | Hiring of workers outside the project area   | <ul style="list-style-type: none"> <li>Regular community and project workers training, awareness and sensitization on HIV/AIDS.</li> </ul>   | Training Plan, No of the workers trained.  | Contractor/<br>MARWASCO                             | WSTF               |



| E & S Impacts                                 | Source of Impacts   | Proposed Mitigation Measure   | Monitoring and Measurement   | Responsible Entity                | Supervising Agency                    |
|---|---|---|--|-----------------------------------|---------------------------------------|
| diseases if health services are insufficient. | Increased demand on infrastructure: Strain on local transport, sanitation, and healthcare facilities.   | <ul style="list-style-type: none"> <li>Implement clear and culturally sensitive GM and SEAH/GBV procedures at the project site.</li> </ul>  | Clear and culturally sensitive GM and SEAH/GBV procedures at the Laisamis Scheme project site. | Contractor/MARWASCO               | WSTF                                  |
|   | Cultural disruption: Cultural differences between workers and the local community   | <ul style="list-style-type: none"> <li>Provide adequate and appropriate welfare conveniences for the staff including washrooms, rest area and changing room</li> </ul>  | Number of sanitation conveniences and changing rooms for both genders, appropriate rest area   | Contractor/MARWASCO               | WSTF                                  |
|   |   | <ul style="list-style-type: none"> <li>Ensuring that children and minors are not employed directly or indirectly on the project.</li> </ul>   | Policy against child labour, Identification Numbers for all the employees                      | Contractor/MARWASCO               | WSTF                                  |
| Insecurity threats                            | Existing Intra and inter community conflict<br><br>Unresolved project, land and intertribal conflicts   | <ul style="list-style-type: none"> <li>Prepare and implement site security management plan in accordance with project Security Management Plan and SOPS.</li> </ul>   | Availability of approved site specific SMP.  | Contractor/MARWASCO               | WSTF<br>County Government of Marsabit |
|   |   | <ul style="list-style-type: none"> <li>The site specific SMP must be cleared by the E&amp;S Team at the CPU before site mobilization</li> <li>Have sufficient emergency response plan before mobilizing to the field</li> </ul> |  | Contractor/MARWASCO               | WSTF                                  |
|   |   | <ul style="list-style-type: none"> <li>Use the county and community as entry points before mobilizing to the field</li> </ul>   | Evidence of consultation with CC   | Contractor/MARWASCO               | WSTF                                  |
| Occupational Safety and Health (OSH) hazards  | Physical hazards: slips, trips, falls, and injuries from machinery or tools.<br><br>Exposure to intermittent and occupational noise, dust, heat | <ul style="list-style-type: none"> <li>Develop and Implement a site-specific Health and Safety Action Plan based on the project Health and Safety Action Plan</li> </ul>  | Availability and implementation progress of the HSAP   | Contractor/supervision consultant | DOSHS                                 |

| E & S Impacts | Source of Impacts  | Proposed Mitigation Measure   | Monitoring and Measurement   | Responsible Entity | Supervising Agency |
|---------------|--|---|--|--------------------|--------------------|
|               | <p>and chemicals, exposure to harsh climatic conditions, manual handling hazards, electrical hazards: Risks from installing solar panels and working with electrical systems, fall from height hazards, falling objects hazards during steel tank erection</p> <p>Poor sanitary facilities may result in waterborne or communicable diseases.</p> <p>Traffic incidents and accidents at the site</p> | <ul style="list-style-type: none"> <li>Register the construction site with DOSHS</li> </ul>   | Valid construction workplace certificate from DOSHS                    | Contractor         | DOSHS              |
|               |  | <ul style="list-style-type: none"> <li>Undertake an appropriate Health and safety risk assessment and submit the report to DOSHS Nanyuki</li> </ul>   | DOSHS signed copy of RA report   | Contractor         | DOSHS              |
|               |  | <ul style="list-style-type: none"> <li>Induction of workers on health and safety before commencing works</li> </ul>   | Number of workers inducted   | Contractor         | DOSHS              |
|               |  | <ul style="list-style-type: none"> <li>Engage a qualified and competent health and safety officer for the lot</li> </ul>  | Qualification of the Health and safety officer at the site             | Contractor         | DOSHS              |
|               |  | <ul style="list-style-type: none"> <li>Ensure there are trained first aider and fire Marshalls</li> </ul>   | Number of trained first aider and fire marshals                        | Contractor         | DOSHS              |
|               |  | <ul style="list-style-type: none"> <li>Conduct daily toolbox talks</li> </ul>   | Records of daily Tool Box Talks  | Contractor         | DOSHS              |
|               |  | <ul style="list-style-type: none"> <li>Provide appropriate personal protective equipment (PPE) to workers and training on appropriate use. (Reflective jackets, helmets, face masks, ear plugs gloves, safety boots, etc.)</li> </ul> | No of workers with appropriate PPEs                                    | Contractor         | DOSHS              |
|               |  | <ul style="list-style-type: none"> <li>There should be adequate provision of the requisite sanitation facilities for human waste disposal</li> </ul>  | Clean and convenient sanitation facilities                             | Contractor         | DOSHS              |
|               |  | <ul style="list-style-type: none"> <li>Recording of all injuries that occur on site in the incident register, corrective actions for their prevention are instigated as Appropriate</li> </ul>  | Availability of incident register at the site<br>Well filled incidents | Contractor         | DOSHS              |
|               |  | <ul style="list-style-type: none"> <li>The contractor should have a WIBA insurance policy to cushion self and</li> </ul>  | Workers with WIBA  | Contractor         | DOSHS              |

| E & S Impacts               | Source of Impacts | Proposed Mitigation Measure  | Monitoring and Measurement  | Responsible Entity   | Supervising Agency |
|-----------------------------|-------------------|--|---|--|--------------------|
|                             |                   | workers against loss of income or an accident on site  |   |  |                    |
|                             |                   | <b><u>Workers Welfare</u></b>  |   |  |                    |
|                             |                   | <ul style="list-style-type: none"> <li>Ensure that all site personnel are provided with an adequate supply of safe drinking water, which should be at accessible points at all times.</li> </ul> | Number of water points for the workers at Laisamis Scheme site        | Contractor   | DOSHS              |
|                             |                   | <ul style="list-style-type: none"> <li>Provide conveniently accessible, clean, orderly, adequate and suitable washing facilities within the site.</li> </ul>                                     | Clean and convenient sanitation facilities                            | Contractor   | DOSHS              |
| Community Health and Safety |                   | <ul style="list-style-type: none"> <li>Ensure the safety of residents by providing safety signs at strategic places around the access roads.</li> </ul>  | No of road appropriate safety signs provided                          | Contractor/<br>Supervision consultant<br><br>E & S Specialists<br>MARWASCO | DOSHS              |
|                             |                   | <ul style="list-style-type: none"> <li>All trenches must be barricade using the appropriate safety tape</li> </ul>   | Trenches with barricading tape  | Contractor   | DOSHS              |
|                             |                   | <ul style="list-style-type: none"> <li>Cordoning off working sites to protect the public or unauthorized persons</li> </ul>  | Area cordoned off   | Contractor   | DOSHS              |
|                             |                   | <ul style="list-style-type: none"> <li>Use of signs and warnings on sites with high risks such as the elevated tank site</li> </ul>  | Number of appropriate safety signs installed at the construction site | Contractor   | DOSHS              |
|                             |                   | <ul style="list-style-type: none"> <li>Reduce unnecessary speeding to control for accidents from the movement of pedestrians or livestock in the area.</li> </ul>                                | Speed limit at the site and within the project area                   | Contractor   | DOSHS              |

| E & S Impacts                              | Source of Impacts  | Proposed Mitigation Measure   | Monitoring and Measurement  | Responsible Entity   | Supervising Agency                               |
|--|--|---|---|--|--|
|  |  | <ul style="list-style-type: none"> <li>The elevated water tank to be installed a safe distance from human activities or property</li> </ul>   | Evidence of the consideration of community settlement in tank design  | Supervision consultant   | Planning Department                              |
|  |  | <ul style="list-style-type: none"> <li>The design and construction of the elevated steel tank to consider the changes in wind force in the area.</li> </ul>   | Approved design and construction methods  | Supervision consultant   | Planning Department                              |
| Sexual exploitation and harassment (SEA-H) | <p>Potential SEAH risk among the workers at the project site</p> <p>Workers may take advantage of power imbalances to exploit local women or vulnerable individuals in the project area</p> <p>Lack of reporting mechanisms: Without proper channels, victims of SEAH or GBV may not report incidents due to fear of retaliation or lack of support.</p> | <ul style="list-style-type: none"> <li>Engage competent GBV / social safeguard officer</li> </ul>   | <ul style="list-style-type: none"> <li>Qualification of the GBV / social safeguard officer</li> <li>Number of incidences (both reported and unreported), their investigation, solution and closure according to the SEAH Response Plan</li> </ul> | Contractor/Supervision Consultant<br><br>Local Community Leaders<br><br>MARWASCO<br>SEAH Expert<br><br>MOWSI | WSTF<br><br>Gender Department<br>Marsabit County |
|  |  | <ul style="list-style-type: none"> <li>Conduct SEA-H sensitization to the workers during induction</li> </ul>   | No of workers sensitized  |  |  |
|  |  | <ul style="list-style-type: none"> <li>Background checks for the workers, subcontractors and suppliers.</li> </ul>  | Well documented procedures for background checks  |  |  |
|  |  | <ul style="list-style-type: none"> <li>Conduct SEA-H sensitization to the community in the project area</li> </ul>  | No of community sensitization meeting   |  |  |
|  |  | <ul style="list-style-type: none"> <li>Ensure all the workers signs the CoC developed for the project and sensitization of staff on responsibilities related to the COC and consequences of non-compliance; project-level IEC materials;</li> </ul> | Number of the signed CoC  |  |  |

| E & S Impacts                   | Source of Impacts  | Proposed Mitigation Measure  | Monitoring and Measurement   | Responsible Entity                  | Supervising Agency           |
|---------------------------------|--|--|--|-------------------------------------|------------------------------|
|                                 |  | <ul style="list-style-type: none"> <li>Implement the project SEAH action plan with an Accountability and Response Framework as part of the C-ESMP.</li> </ul>  | Level of the SEAH plan implementation at the site                                  |                                     |                              |
|                                 |  | <ul style="list-style-type: none"> <li>Response to SEA-H: including survivor-centered coordinated multi-sectoral referral and assistance to complainants according to standard operating procedures</li> </ul>                     | Effective SEAH response plan   |                                     |                              |
| Infringement of Children rights | Engagement of children in construction works                               | <ul style="list-style-type: none"> <li>Domesticate the LMP as part of the CESMP;</li> </ul>  | Level of the LMP implementation at the site  | Contractor, Consultant and the WSTF | County Children's Department |
|                                 | Sexual abuse of children in the project area by the project workers        | <ul style="list-style-type: none"> <li>Develop and implement a Children Protection Strategy that will ensure minors are protected against negative impacts associated by the Project.</li> </ul>                                   | Availability and implementation status of Children Protection Strategy for the Lot | Contractor, Consultant and the WSTF | County Children's Department |
|                                 | Exposing Drug and alcohol to children                                      | <ul style="list-style-type: none"> <li>Training and signing of CoC by the project team</li> <li>sign, committing themselves towards protecting children, which clearly defines what is and is not acceptable behaviour;</li> </ul> | Number of workers trained on and signed CoC  | Contractor/Supervision consultant   | County Children's Department |
|                                 | Workers working with the school  | <ul style="list-style-type: none"> <li>Children under the age of 18 years shall not be hired on site as provided by Child Rights Act (Amendment Bill) 2014.</li> </ul>   | No of the workers with national identification card numbers at the site            | Contractor/Supervision consultant   | County Children's Department |
| Infringement of VMGs rights'    | Exclusion of vulnerable groups from consultations and inclusion in designs | <ul style="list-style-type: none"> <li>Schedule meetings at convenient times and locations to accommodate women, persons with disabilities, and other vulnerable groups.</li> </ul>  | Plan of public consultation that is appropriate for community                      | Contractor/Supervision consultant   | Social Protection Department |

| E & S Impacts | Source of Impacts        | Proposed Mitigation Measure   | Monitoring and Measurement                            | Responsible Entity                | Supervising Agency           |
|---------------|--------------------------|---|---|-----------------------------------|------------------------------|
|               | Failure to implement SEP | <ul style="list-style-type: none"> <li>Focused engagements with the vulnerable groups. This will include dedicated consultations with the PwDs to understand their needs.</li> </ul>                    | Number of VMGs identified and number of consultations | Contractor/Supervision consultant | Social Protection Department |
|               |                          | <ul style="list-style-type: none"> <li>Apply universal design in infrastructure to ensure accessibility for persons with disabilities to the water points.</li> </ul>                                   | Design that is user friendly to PWD                   | Supervision consultant            | Social Protection Department |
|               |                          | <ul style="list-style-type: none"> <li>Ensure that consultations are culturally appropriate, accessible, including the use of sign language interpreters, braille, and vernacular languages.</li> </ul> | Site specific GRM<br>Involvement of site GRC          | Supervision consultant            | Social Protection Department |