

## RSPO NOTIFICATION OF PROPOSED NEW PLANTING

*This notification shall be on the RSPO website for 30 days as required by the RSPO Procedures for new plantings (<http://www.rspo.org/?q=page/535>). It has also been posted on local on-site notice boards.*

*Date of notification:*

*Tick whichever is appropriate*

<input checked="" type="checkbox"/>	<b><i>This is a completely new development and stakeholders may submit comments.</i></b>
<input type="checkbox"/>	<i>This is part of an ongoing planting and is meant for notification only.</i>

COMPANY: Golden Veroleum Liberia, Inc.

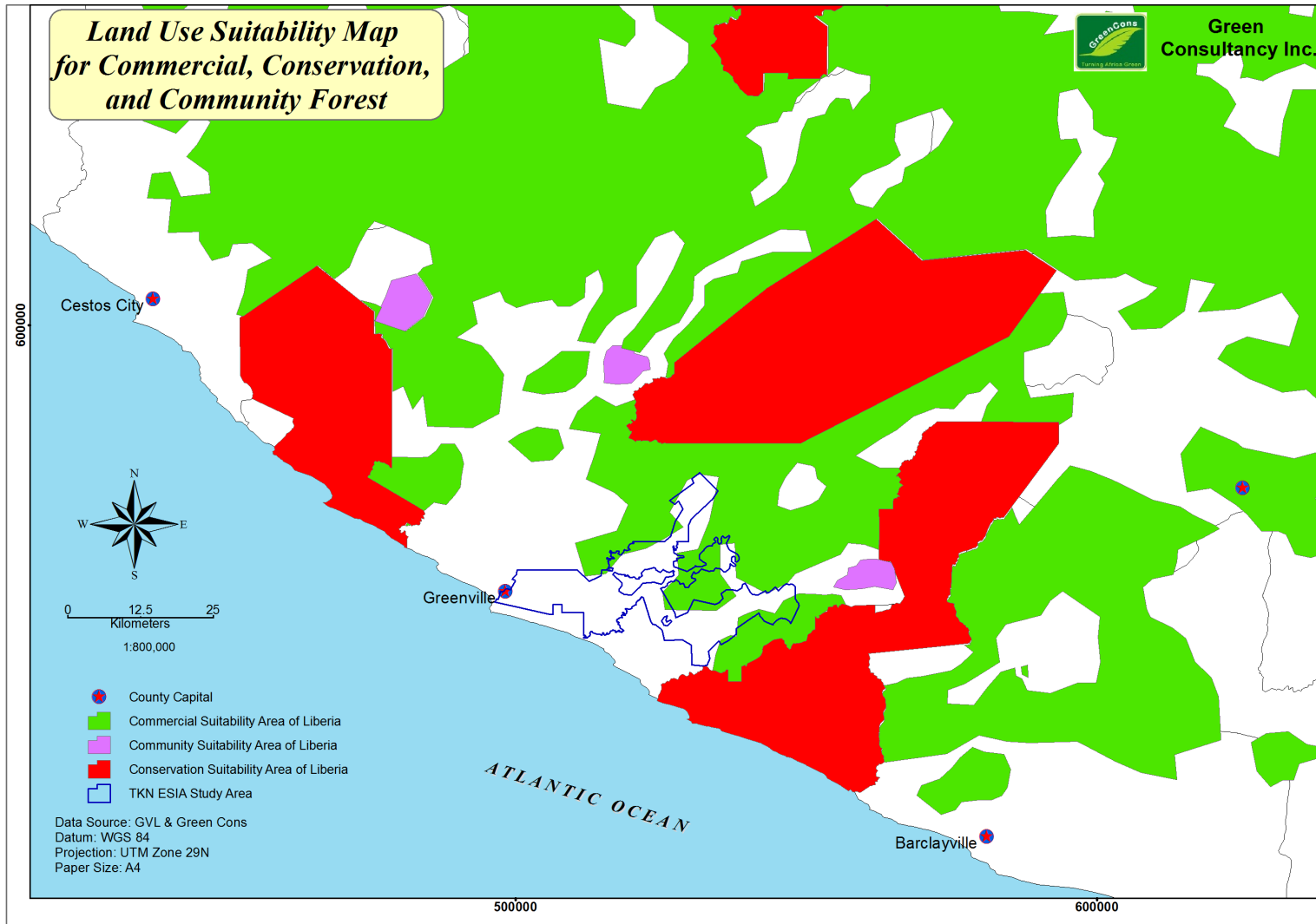
SUBSIDIARY (If any): -

RSPO Membership No.: 1-0102-11-000-00 approved on 29/08/2011

Location of proposed new planting: Kpanyan, Dugbe River and Jaede Statutory Districts, Sinoe County in Southeastern Liberia, Republic of Liberia (Figure 1)



Figure 1: Location Map



**Figure 2: Location map of new planting area (yellow shade) in (Kpanyan, Dugbe River and Jaede Statutory Districts), Sinoe County (upper panel), and proximity to protected areas (red shading) and forest allocated for production purposes (green).**

## **SUMMARY OF SEI ASSESSMENT**

Golden Veroleum Liberia (GVL) is an investment of the Verdant Fund LP. Golden Agri-Resources Limited (GAR) is the principal investor in the Verdant Fund LP. GAR is, by hectare, the second largest oil palm cultivator in the world and listed on the Singapore Stock Exchange. The company is duly organized under the laws of the Republic of Liberia with head offices located in Sinkor 17 Street, Cheeseman Avenue, Monrovia, Liberia. Following assessment of the Liberian business climate and interest in investing in Liberia, GVL entered into a 65 years concession agreement (option of renewal by the company) with the Government of Liberia for the leasing and conversion of 220,000 ha of land in Sinoe, Grand Kru, Rivercess, River Gee and Maryland counties. The concession agreement provides for the Government and GVL to implement a social and community development program, which includes employee housing, education and medical care. Additionally, a Liberian smallholder program to develop 100,000 acres (40,000 hectares) of oil palm is to be established in support of local Liberian oil palm farming initiatives. In support of biodiversity conservation in the country, GVL is under obligation to carefully preserve original (primary) forest and areas of high biodiversity, sacred community lands located within its proposed project area. Moreover, land cover and high carbon stock mapping has already been conducted by GVL and an international non-government organization with interest in forest conservation, Tropical Forest Trust (TFT), to identify proposed HCS protection areas in GVL's area of interest and the surrounding landscape (Figure 2).

The approximately 220,000 hectares of land area are located in five counties: Sinoe, Grand Kru, Rivercess, RiverGee and Maryland. The agreement was ratified and approved on September 1, 2010, published by authority of the Ministry of Foreign Affairs Monrovia, Liberia and subsequently printed on September 2, 2010.

The concession agreement acknowledges GVL's commitment to compliance with the Environment Protection and Management Law of Liberia (EMPL) and guidelines from the Round Table on Sustainable Palm Oil (RSPO). GVL is an RSPO member; its membership status approved on August 29, 2011 with the assigned membership number of 1-0102-11-000-00. To comply with RSPO requirements, all members must comply with RSPO's New Planting Procedure (NPP), which includes an independent HCV assessment. HCV assessments and associated NPP reports for GVL have already been produced and approved by RSPO for 12,000 ha in Butaw District, 8,000 ha in Kpayan District and 15,482 ha in Tarjuowon District (Sinoe County); and 28,000 ha in Trenbo and Wedabo Districts (Grand Kru County). In February 2014, GVL commissioned Green Consultancy and Daemeter Consulting to jointly conduct an HCV assessment of the 46,900 ha TKN Area of Interest (AOI). The assessment took place from February – July 2014.

The EMPL mandates that all proponents of new projects that fall within Annex 1/Section 6 (which includes palm oil projects) must conduct Environment Impact Assessment (EIA/ESIA). Prior to NPP submission, ESIA reports covering 33,000 ha of land area in Sinoe and 97,000 ha

of land areas in Grand Kru were conducted by Green Consulting and approved and certificated by the Environmental Protection Agency of Liberia (the Liberian Agency responsible for Environmental Clearance and Compliance). A portion of these approved ESIA areas overlapped with the TKN AOI, yet more than 28,000 ha was outside of the approved 97,000 ha and required a subsequent ESIA. This was also conducted in March 2014 by Green Consultancy Inc. and approved in May 2014 by the Environmental Protection Agency. The previously approved 17,417 ha and recently approved 29,483 make up the 46,900 ha AOI of land area in which the HCV assessment was done. The ESIA assessment covered geology, topography, hydrology, soil condition, air quality, land use and socio-economic condition of the area, as well as likely impacts resulting from oil palm operations. The study also detailed methods to mitigate negative impacts of oil palm development.

The social and Environmental assessment amongst other things considers the following:

### **Population and demography**

The population of the study area is generally young. 51.8 percent of females and 48.2 percent of males are eighteen, or younger. Very few people were reported to be aged more than 70. The average age for males, and females were 21.4 and 19 respectively which is slightly higher than the country median age (18 for males, and 18.3 for females).

### **Dynamics and Ethnic Structures**

The ethnic composition of the population in the study area is dominated by the Krus with small elements of other Liberia tribes including Greebos, Bassa Mano, Gio and Kpelle. The largest settlement in the Dugbe River area is Karquekpo, while Tubmanville is the largest settlement in Kpanyan. Jaede is only represented in the concession by a small town called Titiyen, which has a population of 950 residents. In general, settlements in the project area range from tiny hamlets of thatched huts to larger settlements of corrugated roofs and mud-plastered houses.

Life in these communities is far from simple. Each village is connected through a variety of crucial linkages with other villages, the section, clan and the larger district. The section appears to be the central of traditional identity.

### **Land Administration, Tenure and Use**

Land is regulated based on customary rules that are administered by tribal authorities. Land is seen as a common/collective resource belonging to the larger clan or district. This ownership status is further divided into sub-units of individual towns or villages. Individual members and families have usufruct rights, dependent upon occupancy or use.

In the project area, the concept of communal ownership of land is the land tenure system that is being used to acquire land. There are no legal titles to land in the area.

The project area has been a subject of logging activities since the 60s. Most of these activities were interrupted by the civil conflict in the early parts of the 90s. Logging resume again after the war and stopped by 2005, however traces of logging including roads, landing sites and left over

logs are seen in many areas. The land use activity currently persisting in the area is rain-fed farming/shifting agriculture system; with rice, cassava and vegetable cultivated using customary methods and materials. The majority of the land observed not under cultivation is secondary vegetation, with patches of primary forest in the north and northeast of the project area. Based on the FDA land use characterization, the area can be considered as areas suitable for commercial agriculture.

### **Education**

There are only six (6) junior high schools in the entire district with few elementary schools. Some of the schools have one to two teachers that are not on payroll and will have to do other things for sustenance resulting to their irregular absence from the class room. The average school going child is 6 yrs. Most female at the ages of 13 and above is either with child, married or co-habilitating. Those completing the elementary level will have to travel to Tubmanville, Karquekpo, Kabada, Banneh New Town or Greenville to further their secondary education. For those whose parents cannot afford the cost of living in these communities will have to discontinue.

### **Old towns**

Many of these abandoned towns still possess some local value. For instance, the graves of prominent elders and chiefs are located in these areas. In some cases, artifacts and cultural items associated with the foundation of the town resides in the old towns. Additionally, trees belonging to some members of the towns are left behind by the former inhabitants. Hence overtime community members relate to their old towns to pay respect to their forefathers or to access items left behind. Unless otherwise authorized by the communities, old towns are sensitive areas that need to be set apart from the developed areas for the plantation.

### **Natural Resources Usage**

All around the world, people depend on the environment in different ways to meet their basic needs and earn an income. In Liberia, some 70% of the population live in rural areas and are directly dependent on forests for their subsistence. Amongst the rural population, more than 70% rely on agriculture for livelihood.

During the FGD in the TKN, residents have indicated that they have been utilizing the natural resources within the area from one generation to another. Most, if not all of the natural resources which the resident utilizes have been sourced from within the project area. There are many points of usage for each community within their own lands.

The use of these resources is mainly for subsistence purposes, with some limited amount of income generation activities particularly palm oil, farina and bush meat. The trees in the surrounding forest are used for the provision of building materials since most of the buildings are constructed using wood or wood related products. Fishing and hunting are done at a subsistence basis;

## **Community Infrastructure**

Few residents enjoyed good access to public facilities while in many remote communities facilities are lacking. Residents of communities like Tubmanville, Kabada, Panama, Karquepo and Bannah enjoyed relatively good access to these public facilities, whereas households living in the remote parts such as Seethum, GBC, Juaryen and West Point generally had many constraints in accessing public facilities. In many areas villagers are required to walk up to 3 hours to get to the nearest clinic. This results in some villagers relying on medicinal plants for the treatment of illness such as rashes, running stomach, sore etc. The sources of medicinal plants are diverse and widespread including wetlands, pioneering plants species in agriculture degraded areas, parts of forest trees (barks, roots and leaves). Schools in the entire study area are limited to primary schools. Hence, school kids who pass to the secondary level will either migrate to Greenville to pursue their education or remain in the villages as drop-outs.

## **Evaluation of Positive Social Impacts**

### **Employment opportunities**

The TKN project is expected to employ more than 2,000 persons at a rate of 1 job for every 5-6 ha developed. The project will provide jobs for semi-skilled and unskilled labor. During the constructional phase both skilled and unskilled labor will also be hired. The current profile of the community would suggest that most of the youth can only be taken on to undertake unskilled work. During the construction stage, they will therefore provide most of the casual labor.

The local community will be considered in the first instance before migrants. A special effort will be made to provide training in various apprenticeship positions for the trainable youth. This is a positive impact of the project and will go to develop the local community directly.

The proposed project will also provide employment avenues to local contractors/consultancy companies to carry out various project activities such as estates construction, water and electricity provision for estates and offices among others. These will create job opportunities for the local firms.

### **Improved Local/National Economy**

In addition to the direct employment, the project will result in increased trade due to the increased need for goods and services within the communities. Regular monthly earnings for laborers and artisans will give a boost to the local economy. Their purchasing power will be greatly enhanced and members of the community will be in a good position to plan their personal and family lives better. Several thousands of dollars are expected to be pumped into the local economy in the form of payment of workers' salaries. Building and construction materials like sand will be obtained locally. Cement will be purchased from Monrovia and Greenville. The purchase and use of such materials will impact positively on the local as well as the national economy. The deduction of both workers and corporate taxes will enhance the national economy.

### Improved Institutional/National Revenue

This project is expected to accrue revenue for the state through levies and taxes applied on the crude palm oil production and tax deductions from workers' salaries and contractor fees. Some government agencies will charge fees which will increase the revenue base of the institution.

### Improved Roads and Communications Infrastructure

The project is expected to make a contribution towards social development including feeder roads upgrading and maintenance within the project catchment. The project is also expected to open up the area through road construction to link the communities and the project site. The project will create incentive for the population in the area to increase. This will provide opportunity for mobile communication and local community radio stations to emerge.

### **Evaluation of the Negative Social Impacts**

#### Land Acquisition/Ownership Issues

The project could face land acquisition conflicts if satisfactory due diligence and subsequent purchasing/renting arrangements are not made with the identified land owners at the commencement of the project.

#### Livelihood Issues

A possible impact on livelihood is the loss of the agricultural labor force. If this occurs it will be a local impact in the concession area, but could foreseeably occur at a larger, regional level as knowledge of the potential employment opportunities at the plantation is likely to become widespread. It is anticipated that the impact is most likely to occur as a one-off during construction and the early stages of operation when recruitment and hence job expectations will be at their highest. Land uptake by the project, in-migration and the increased demands of local products as a result of the plantation workforce may result in an insufficient supply of locally available goods and hence result in inflationary impacts on the local economy. The inflation in the cost of staple food is likely to reduce the communities in the concession area's ability to purchase staple foods.

#### Community Values

The establishment of the plantation dwelling can compromise community and social values; crime, use of alcohol and disagreeable behavior by workers are all problems that can arise. The introduction of these workers together at the project area has the potential to create some social concerns. There is the potential for an increase in criminal activities, and abuse of alcohol as a result of additional income. In addition, since the workers will be housed at the same campsite there is the potential for conflicts through disagreements. Recreational activities such as sports will also be promoted by the company. Every effort must be made by the company to ensure that it does not promote alcoholism.

Increase in volume of traffic: there may also be project infrastructure and project activities which



cause safety risks. This may increase the potential for accidents. Transportation of Fresh Fruit Bunches (FFB) to the palm oil mills and of the oil palm to the port, respectively, by tractor and Lorries and the workers' transportation vehicles, will impact the traffic activities by generating dust and noise pollution.

#### Receiving Water Quality Deterioration and Change in Local Hydrology

The construction activities may impact water quality of the rivers, streams and creeks due to the release of suspended sediments through erosion and release of contaminants associated with the sediments. Leaching of agrochemicals, runoff, sewage and hydrocarbon contamination can affect water and cause significant impacts on local communities' sources of domestic water supply.

#### Noise Nuisance

Noise levels recorded at sampling points within the communities of the project area never exceeded 50 decibels. The prevailing sound environment throughout the area is considered almost totally by sounds of nature.

- Increased noise levels are expected from:
- Machinery use during vegetation clearance;
- Movement of heavy duty vehicles; and
- Operations of earthmoving equipment.

#### Solid Waste Management Issues

The removal of vegetation and construction spoils can be a nuisance and create insanitary conditions and aesthetic problems. These include:

- The agrochemicals: (Fertilizers, Pesticides, Insecticides, fungicides, etc);
- The hydrocarbon products for the generators, cars, tractors and lorries, etc., such as diesel fuel, oil and grease, lubricants, etc; and
- Spillage prevention.

#### Sanitation Problems

Pressure on the weak sanitation systems in the communities will increase the use of open pit latrines and bushes. This means people may come in direct contact with rivers and streams, which can lead to faecal contamination. Limited access to clean water and poor sanitation include diarrheal diseases which can lead in severe cases to cholera outbreaks. These diseases present a high risk to vulnerable persons such as children or those with pre-existing health conditions.

#### Aesthetics and Visual Intrusion

The removal of vegetation leaving bare land for certain periods during the construction stage may affect the visual sensibilities of the local inhabitants in and around the project area.

## Occupational Health and Safety Issues

Occupational health and safety issues associated with the proposed project construction include:

- Exposure of workers to excessive noise, vibrations and dust;
- Accidents in the use and handling of chemicals, equipment and machinery;
- Injury to the body during the use and handling of chemicals, equipment and machinery;
- Injury due to fires in clearing vegetation and burning wastes etc;
- Illness caused by exposure to wastes and effluents;
- Injury due to snake, insect, rodent or dog bites etc;
- Malaria, and water based diseases, in proximity to river systems and impounded water; and
- Increased risk of social and communicable diseases through the immigration of construction workers from outside the local community.

## Issues relating to Cultural Sites

There is potential that areas available for cultural practices and graveyards might reduce or be lost. It is important to note that local people's connection to their sacred site is critical to their livelihood and existence.

## Health and Safety

Workers health and safety can be impacted during the operation of the project. The major impacts are:

- Risk of accidents from the operation of heavy-duty machines;
- Exposure to excessive noise and fumes from the operation of machines;
- Exposure to vector borne diseases;
- Increase in community injuries and fatalities due to road traffic accidents;
- Deterioration of community health due to exposure to contaminated water supply; and
- Deterioration of community health due to degradation of air quality.

## **SUMMARY OF HCV ASSESSMENT**

The HCV assessment of the area was meant to identify, demarcate and map areas of high conservation value including conflict areas. These processes were achieved by means of site assessment, consultation with local communities and stakeholders and random but strategic transect walk points across the proposed blocks. The draft National Interpretation HCV toolkit for Liberia, the Global HCV Toolkit and the HCVRN Common Guidance (2013) were instruments used for the identification of HCVs under this section. Heaviest reliance was placed on the HCV toolkit for Liberia.

### **Biological Environment**

Sinoe County covers approximately 3,860 square miles (10,000 km<sup>2</sup>), with a coastline of 86 km, and annual rainfall of 80-85 inches. The natural vegetation for most of Sinoe is evergreen rain forest, except along the coast where mangrove and isolated savannah grasslands also occur (Sinoe CDA, 2008-2012). As noted above (Figure 7), three vegetation types predominate the project area:

- **Agricultural Degraded Farmlands & Secondary Habitats:** vegetation with forest species which grow immediately after clearing associated with subsistence agriculture by the local through their crop rotation cycle. Forest of this nature can reach up to 20m with surprising rapidity but has a noticeable absence of large trees (< 30cm in diameter).
- **Late Secondary Forest (+ 20 years):** this forest resembles the primary forest except it does not possess the large trees (>30 metres high and >75cms wide) which have been removed either by commercial or local scale logging. These forests contain many of the same species as associated with primary forests.
- **Primary Forest:** these are either closed or open dense forest where most or all of the principle characteristics and key elements of a native ecosystem are still present with little or no evidence of human disturbance or clear felling, and where the population is low to allow for limited disturbance of the natural condition

The vegetation cover of TKN in Sinoe has been affected by large-scale logging, slash and burn agriculture, mining and scattered human settlements. Several swamps and wetlands are scattered throughout the area reflecting local hydrological characteristics, and mangroves are concentrated near the coast.

### **HCV Assessment Highlights**

#### **HCV 1.1 Protected Areas**

HCV 1.1 refers to areas that have been legally gazette as protected areas and meet IUCN's protected area categories. These include:

- National Parks IUCN Category II (e.g., Sapo National Park)

- Strict Nature Reserve IUCN Category IA
- Nature Reserve (e.g., East Nimba Reserve)
- Cultural Sites
- Game Reserves
- Wetlands of International Significance (e.g., RAMSAR)
- The Gola Transboundary Peace Park
- Proposed protected areas

Only two such areas are present in the direct vicinity of the AOI: Sapo National Park (IUCN Category II) and the proposed Grand Kru-River Gee National Park (GKRG). Based on desktop studies by GVL and GreenCons using GIS data from the GoL, consultation with environmental NGOs and field verification (site visit and community interviews), the AOI does not overlap with Sapo NP, nor does it overlap with Grand Kru-River Gee National Park (GKRG), although the latter is nearby (c. 500 m). Exact boundaries will need to be demarcated prior to development. The FDA requires a 3-km buffer around proposed protected areas. As such, the 3 km buffer zone will extend into the southern boundary of the AOI. Oil palm development should not take place in this 3 km buffer zone, which is required to maintain HCV 1.1 as described in map below:

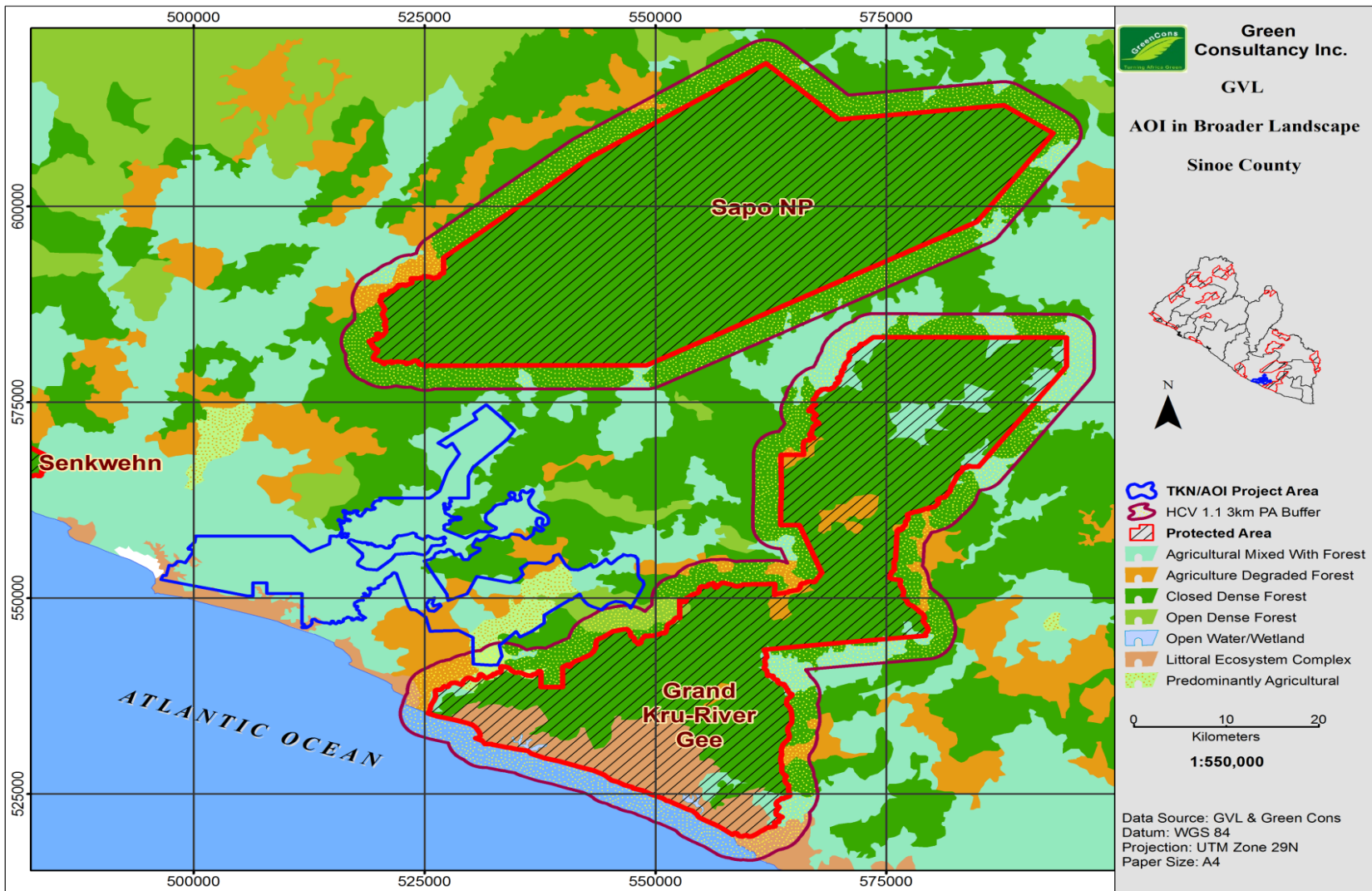


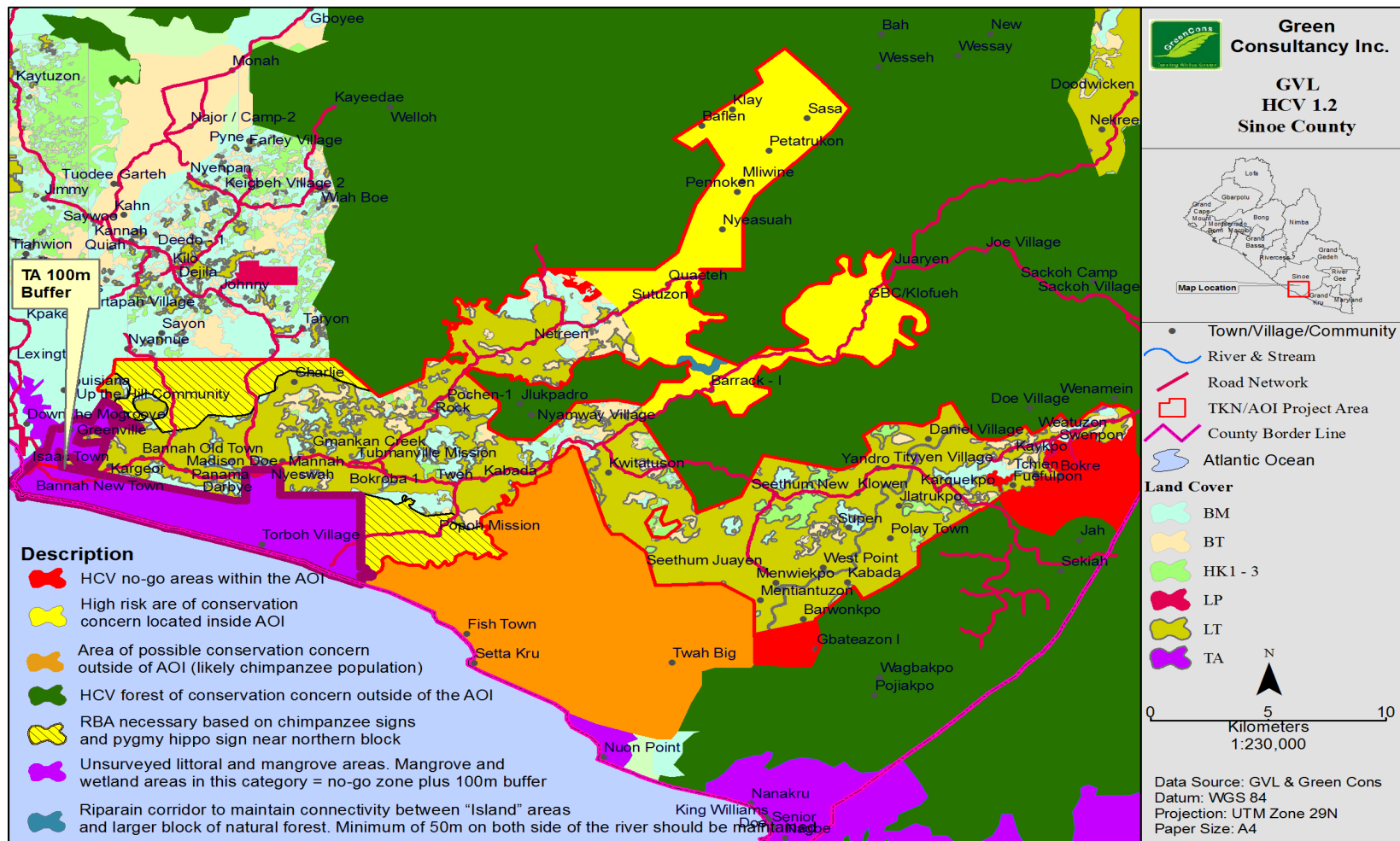
Figure 3: HCV 1.1 Map

## HCV 1.2 - Concentrations of rare, threatened or endangered species

HCV 1.2 species are present in the AOI for all taxonomic groups sampled – plants, mammals, birds, reptiles, amphibians, and fish – but were generally present in “significant” concentration in better quality forest located adjacent to the AOI. Key areas for protecting concentrations of HCV 1.2 species are:

- Forest areas (land cover categories HK 1-3 in the land cover map), especially in areas that are contiguous with large forest blocks connecting to Sapo NP and the proposed GKRG NP.
- Degraded areas whose conversion would risk the integrity of large forest areas if they were developed – Areas 5, 6, 2b, and 7 (all in the east of the AOI)
- Rivers and riparian forests
- Wetlands
- Mangrove forests (precautionary measure as mangroves were not surveyed)

The chimpanzee is an HCV 1.2 species of particular concern in the AOI and surrounding landscape. Although better chimpanzee habitat is located in forests adjacent to the AOI, signs of this species were detected in the “young scrub” (BM) land cover category in the west and south of the AOI. Rapid Biodiversity Assessments of these areas will be necessary prior to development. It is assumed that BM areas will have reduced chimpanzee concentrations (frequency of use) than in neighboring forests. Nonetheless, these areas likely make up part of a home range for a local population of chimpanzees and biodiversity offsets may be appropriate in neighboring habitat to compensate for lost habitat of this HCV 1.2 species.



**Figure 4: HCV 1.2 Map**

Note that in addition to the riparian corridor colored blue in the map, the large green "island" area in the center of the AOI will be connected to the northern block of forest by HCS forests (Map 14). The actual riparian corridor width will be determined by species that the area is being managed for –initially identified for high

### HCV 1.3 - Concentrations of endemic species

An area will have potential HCV 1.3 present according to the HCV national Toolkit for Liberia if there are concentrations of species endemic at national, regional or continental (Africa) scales. The Mount Nimba, Cestos-Sankwein River Shed, Lofa-Mano and Sapo National Park areas contain many endemic species. These four areas are among the 14 centers of plant endemism within the Upper Guinea Hotspot<sup>1</sup>.

According to World Conservation Monitoring Center, IUCN, FAO, NBSAP, Liberia has a total of 111 endemic plants, mammals, birds, reptiles, amphibians, molluscs, fishes and other invertebrates, 90 of which are threatened. The list includes one bird, one mollusk, two reptiles, four amphibians and 103 plants. Of these, only one tree species, *Tetraberlina tubmaniana*, was identified during the survey. Other trees are considered potentially present, but not yet confirmed.

### HCV 1.4 - Critical temporal concentrations of species

The Liberian Toolkit states that HCV 1.4 concentrations are typically found where feeding or breeding resources are concentrated, or where shelter or refuge from climate change such as flooding and drought are found. HCV 1.4 areas include the total area responsible for ensuring that such seasonal or temporal shelter maintain its refuge significance. Example of HCV 1.4 areas include hills, mangroves swamps, water holes found at high elevations during the dry season, and flowering and fruiting trees as temporary ground for large and small mammals, including insects.

No critical temporal congregations of species were documented during field surveys, which included interviews with local communities. This said, precautionary measures would support conserving mangroves and other wetlands for potential temporal congregations of birds, especially since mangroves were not surveyed. Mangroves and wetlands are already recommended for protection in HCV 1.2 and 1.3, as well as other HCVs, and therefore won't be added here.

### HCV 2 – Landscape Level Ecosystems and Mosaics

The Liberian Toolkit sets a minimum threshold of 50,000 ha for HCV 2 landscapes.

An HCV 2 landscapes is present in the forest block connected to Sapo National Park and the proposed GKRG National Park. Based on FDA 2004 land cover data, this landscape level forests measures approximately c. 445,000 ha (Map 27). For site level delineation, all forests areas classified as high density forest (HK3) or medium density forest (HK2) that are contiguous with this HCV 2 forest block are considered HCV 2 and should be maintained. As such, some small

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<sup>1</sup> Liberia's National Biodiversity Strategy and Action Plan, p.39



areas of HCV 2 forest are located inside the AOI in the north and east. These overlap with HCV 1 areas already identified for protection.

### HCV 3 – Endangered ecosystems and habitats

The draft HCV Toolkit for Liberia states that no detailed ecosystem classification for Liberia were available to the working group during the drafting of the NI, but suggested the following as HCV 3, to include montane forest, lowland forest, mangrove forest and all wetlands of international significance especially those of the RAMSAR sites.

HCV 3 is present in the AOI and adjacent areas in the form of high-density lowland forests, mangrove forests and wetlands. For lowland forests, forest cover classified as HK 3 (dense forest) in land cover and any contiguous areas classified as HK 2 (medium density forest) should be maintained as HCV 3 areas. It is noted that all forest areas surveyed had previous disturbance, and none fit the pure ‘primary’ category, but based on threat level nationally and locally, HK 3 and adjacent HK 2 warrant HCV 3 status.

Mangroves will need to be maintained and buffered by at least 100 m of natural vegetation. Large mangrove swamps are found near the town of Worteh and around the towns of Nyanue, Worteh, Sarkoh and Wisseh. The mangrove swamps stretch as far as toward Greenville. Due to unclear land cover mapping on the southern border of the AOI, littoral zones have been mapped pre-cautionary as wetlands. Field surveys will be necessary to identify the actual boundary and 100 m buffer mark.

Non-mangrove wetlands that are (1) inundated year-round, or (2) inundated seasonally and associated with water courses are considered HCV 3 areas as well. Boundaries of these wetlands should be mapped with communities, maintained and buffered 100 m of natural vegetation to protect them from potential impacts by plantation operations and run off.

Other seasonally inundated wetlands should be visited and discussed with communities to decide the value and uniqueness of the ecosystem. If there is question as to the value or uniqueness of the ecosystem, a wetland specialist should be brought in to evaluate the area and determine HCV 3 status. All wetland areas identified during field surveys have been mapped as potential HCV 3 areas for further investigation by the company prior to any development.

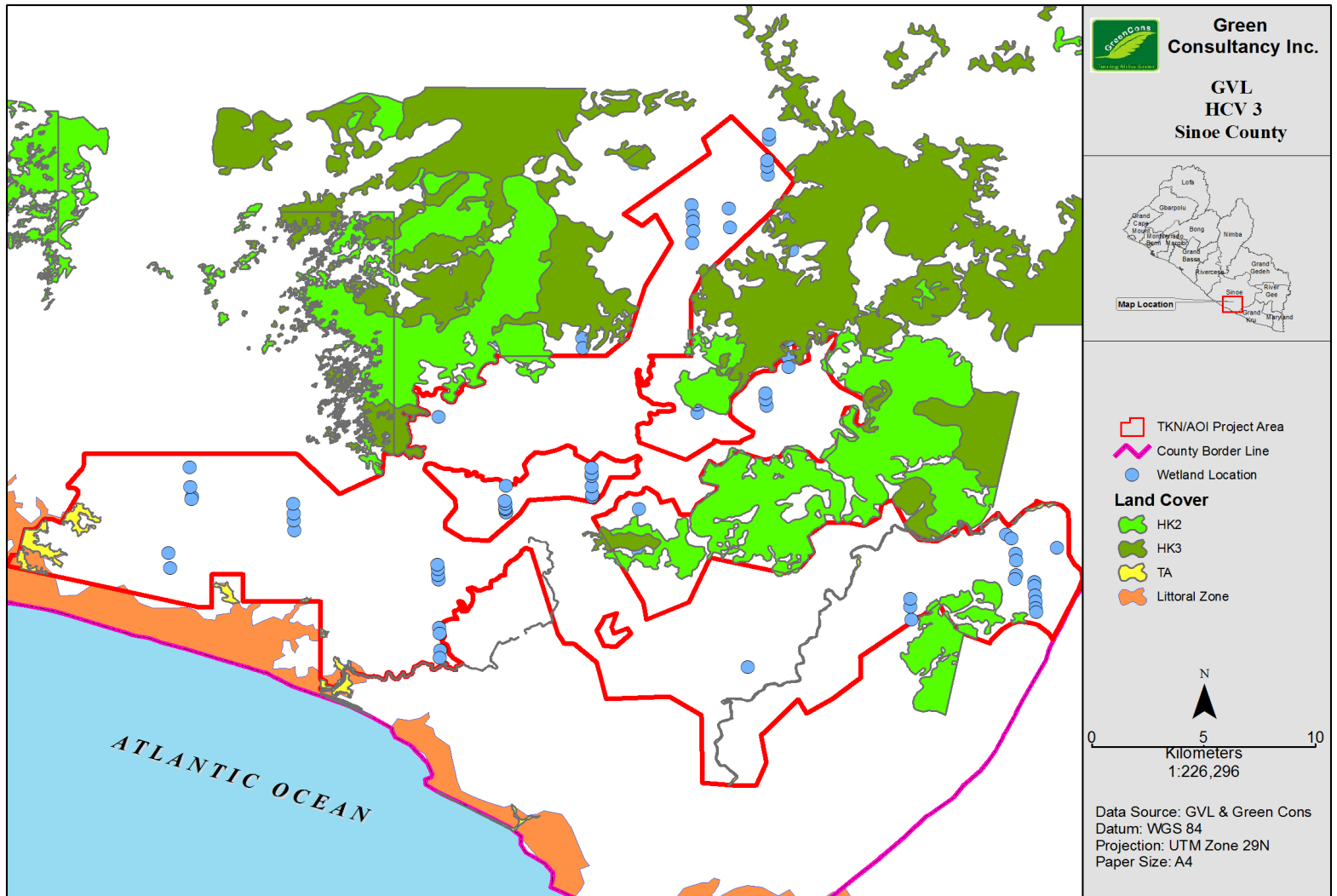


Figure 5: HCV 3 Map

#### HCV 4.1 - Area critical to water catchments

Towns within the project area depend on flowing streams and rivers for a number of usages including drinking, bathing, washing, fishing and means of transport using the canoe or rift. The vegetation around and along these water bodies are generally untouched by local inhabitants, allowing it to give protection to their water from severe sunlight, protection from runoff during heavy rains, shade for resting among others. Additionally, more than forty different swamps and marshy areas, also important for regulating hydrology, were recorded along the different transects.

- Riparian forest buffers of natural vegetation are HCV 4.1 and should be maintained or, where absent and reestablished.
- Wetlands, including mangroves, are HCV 4.1 and will need to be maintained and buffered as described in HCV 3.
- Upstream forests at the headwaters of rivers are also considered HCV 4.1

**Table 1: Recommended Riparian Buffer Width**

<b>Stream/River Width</b>	<b>Min. Buffer Width</b>
>40m	50m
20m – 40m	40m
10m – 20m	20m
5m – 10m	10m
3m – 5m	5m
<3m	-

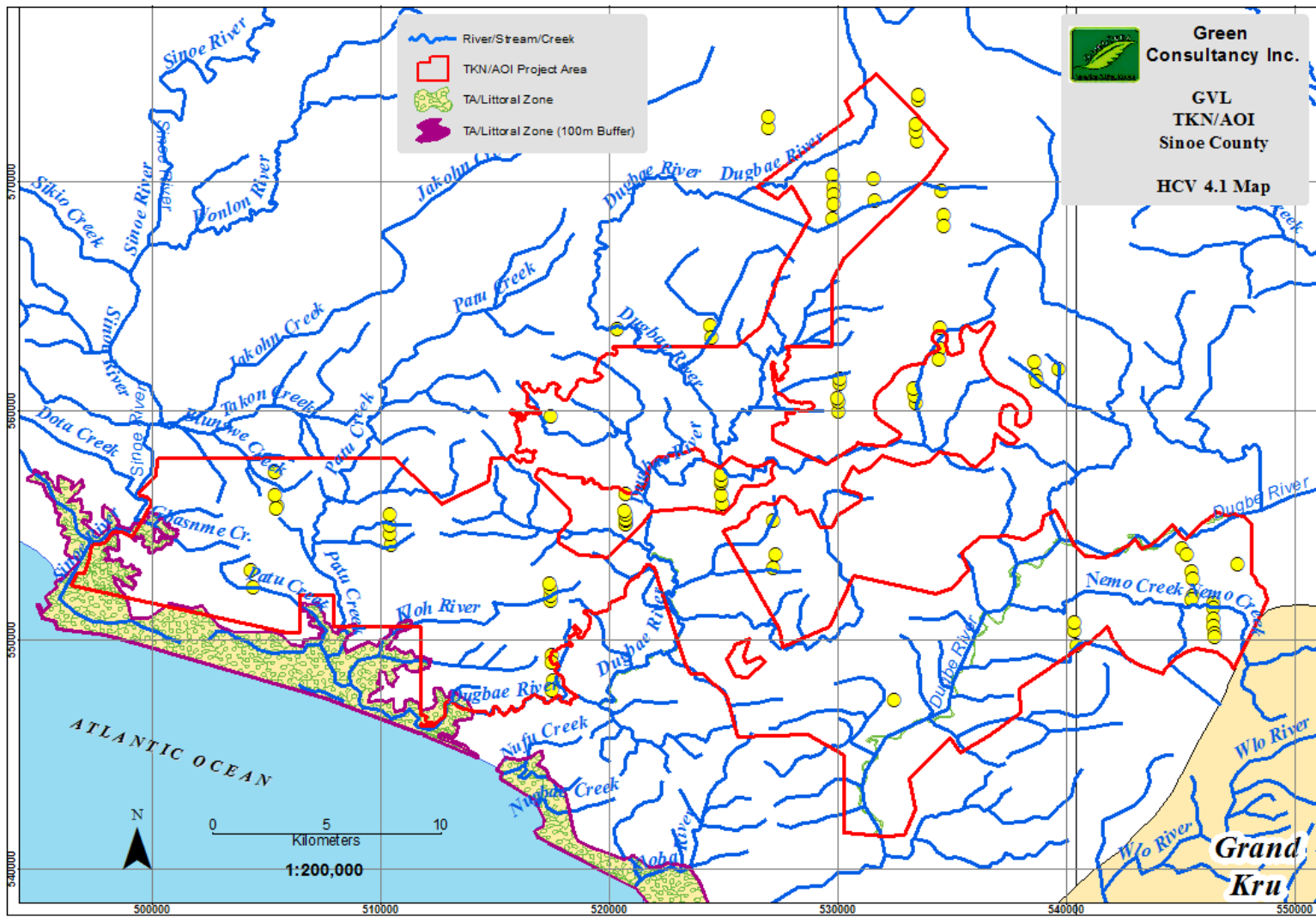


Figure 6: HCV 4.1 Map, with buffers required along rivers and littoral zone.

#### HCV 4.2 - Area of critical erosion control

For HCV 4.2, the Liberian HCV Toolkit emphasizes areas where consequences could potentially be severe for loss of productive land or ecosystems, and damage to or loss of human life. It states that conversion of forest on steep slopes should be avoided, with steep slopes to be defined by national and local regulations, based on the nature of soils and rainfall regimes. It states that steep slopes can vary from 25 – 35 degrees.

Isolated steep slopes are present in the AOI, defined as slopes greater than 25 degrees. This is a precautionary measure (selecting the lowest of the 25-35 range in the Liberian Toolkit) based on the high level of community vulnerability and dependency on environmental services from the natural landscape and healthy ecosystem functioning. Leading oil palm experts and best practices often set the maximum slope at 20 degrees, which can be further considered by GVL for practical and precautionary reasons.

Terracing is also an important feature of soil protection. The Yayasan Sabah Forest Management Area soil protection protocol in Malaysia recommends that slopes over 12° be terraced to prevent soil erosion. Based on RSPO in Indonesia, a more conservative 10° could be used and should be considered by GVL.

Riparian buffers, as described in HCV 4.1, will also be essential to preventing erosion. For this, SOPs typical of best practices in oil palm plantation management will be necessary, for example, to establish ground cover quickly after land clearing and develop roads in accordance with best practices to prevent erosion.



**Figure 7: HCV 4.2 Map**  
 depicting slope across the AOI. Areas that are 12-25 degrees in slope (yellow) should be terraced,  
 while areas >25 degrees in slope (red) should not be planted. Areas in green are relatively low risk for erosion.

### HCV 4.3 - Area critical for fire prevention

This HCV is considered **UNLIKELY PRESENT**

### HCV 5 - Areas fundamental to meeting the basic needs of local communities.

The Liberian Toolkit considers the following as indicators of HCV 5:

- Area where human settlements are located close to the forest
- Regions with high unemployment rates and lack of alternative livelihood options
- Inaccessible/remote communities
- Absence of livestock raising/animal husbandry
- Traditional practices of hunting/fishing
- Fishing (for internal consumption as well as for sale) in coastal forests
- Traditional hunter-gatherer communities

Some or all of the communities in the AOI trigger these indicators. Though some communities in the AOI are still heavily reliant on hunting and gathering, they also farm.

- Community consultations revealed the following HCV 5 areas:
- Farmlands
- Old towns (towns previously inhabited and now abandoned, but still maintaining fruit trees and other cash crops)
- Swamps and wetlands which containing a large portion of the NTFPs used by communities
- Rivers and riparian vegetation
- Hunting grounds

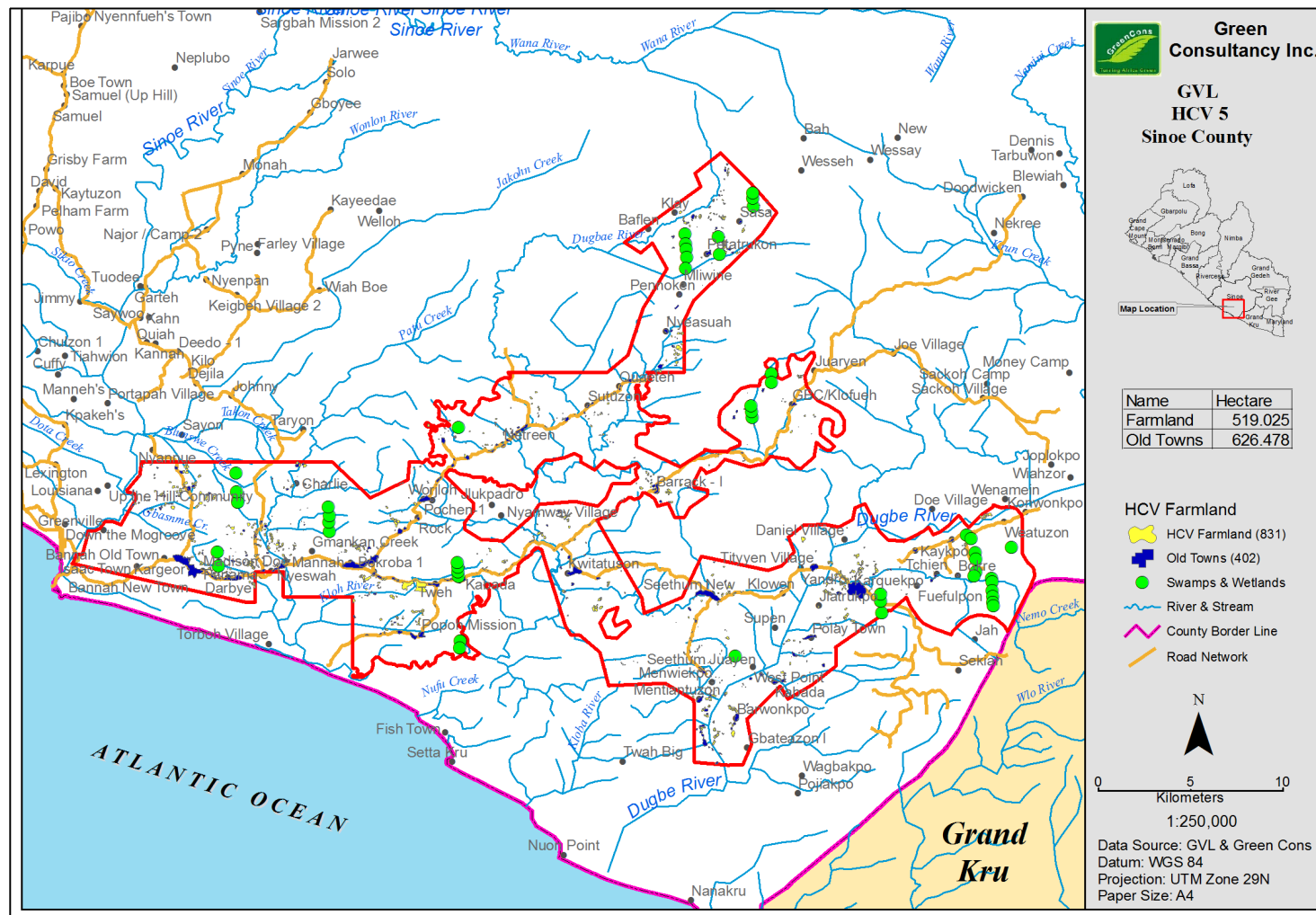


Figure 8: HCV 5 Map depicting farmlands, old towns, and wetlands with confirmed HCV 5 values. These have been mapped definitively through a participatory mapping effort led by GVL. Additional important forest areas and hunting grounds will need to be mapped definitively GVL in coordination with communities and



### HCV 6 - Areas critical to cultural identity (values)

In reference to the TKN AOI, there are burial grounds in every town. Sacred sites and sacred objects were also identified. Communities also pay great tribute to their “old towns” as it bears the gravesites of the town’s founding fathers. Sacred sites and objects remain when these old towns are abandoned. For instance, the towns of Behdloh, Panama, Karquekpo, Sutuzon, Wotoe, Nitreen, Pochen, Borteh and Nyannue were towns found to have sacred forest. These identifications were made possible as a result of the communities granting access to the team. In some instances, communities stated that these sites do exist, but they could not be shown to strangers. The identification of these HCV6 sites was carried out using participatory mapping with the communities.

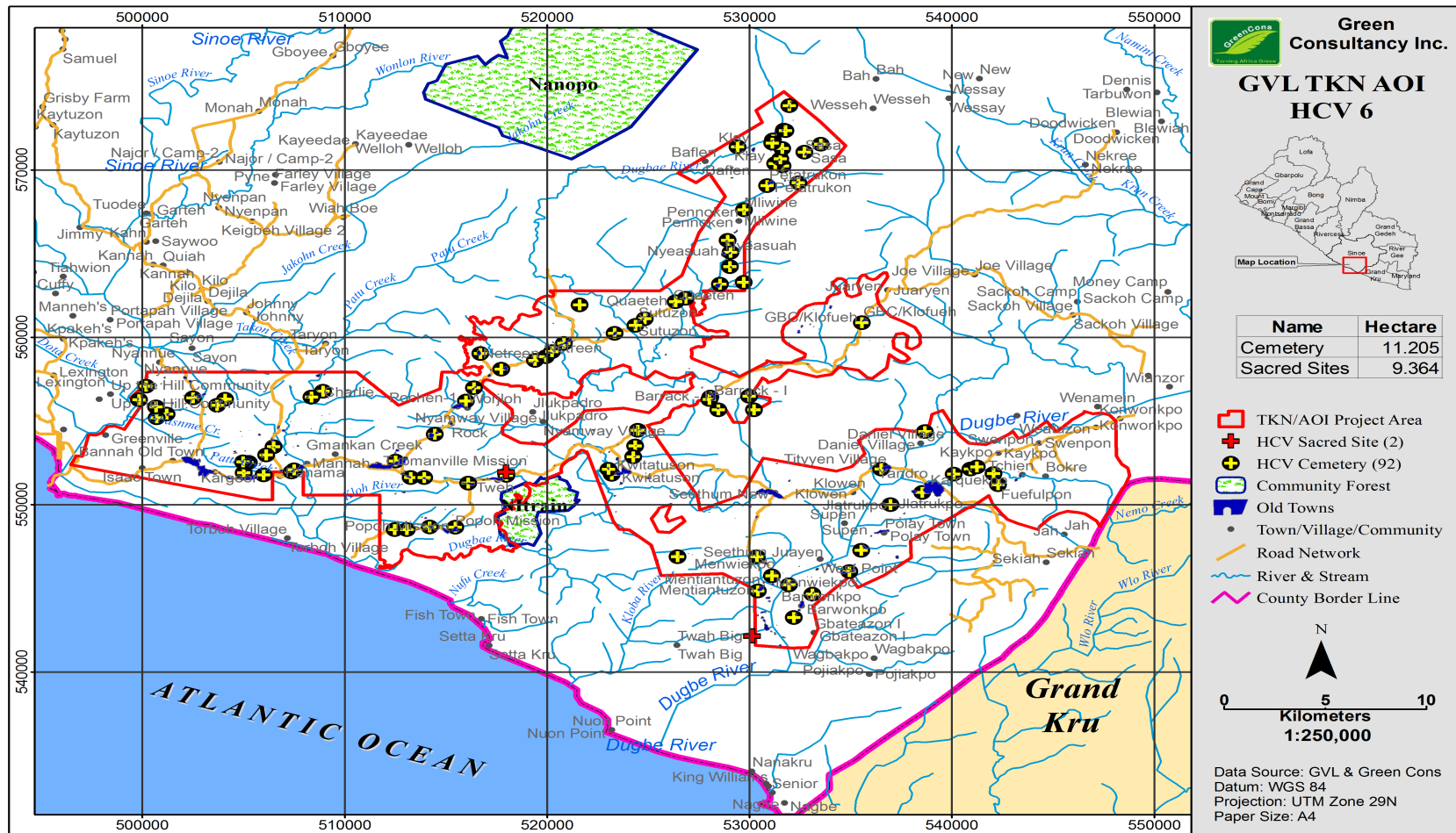


Figure 9: HCV 6 Map depicting sacred sites, cemeteries, community forests, and old towns documented during the assessment. Not all sacred forests (e.g., those in Behdiah, Panama, Karquekpo, Sutuzon, Wotoe, Nitreen, Pochon, Borteh and Nyannue) are displayed on this map and will need to be geo-positioned and mapped by GVL in collaboration with communities

Combined HCV areas as described in map below:

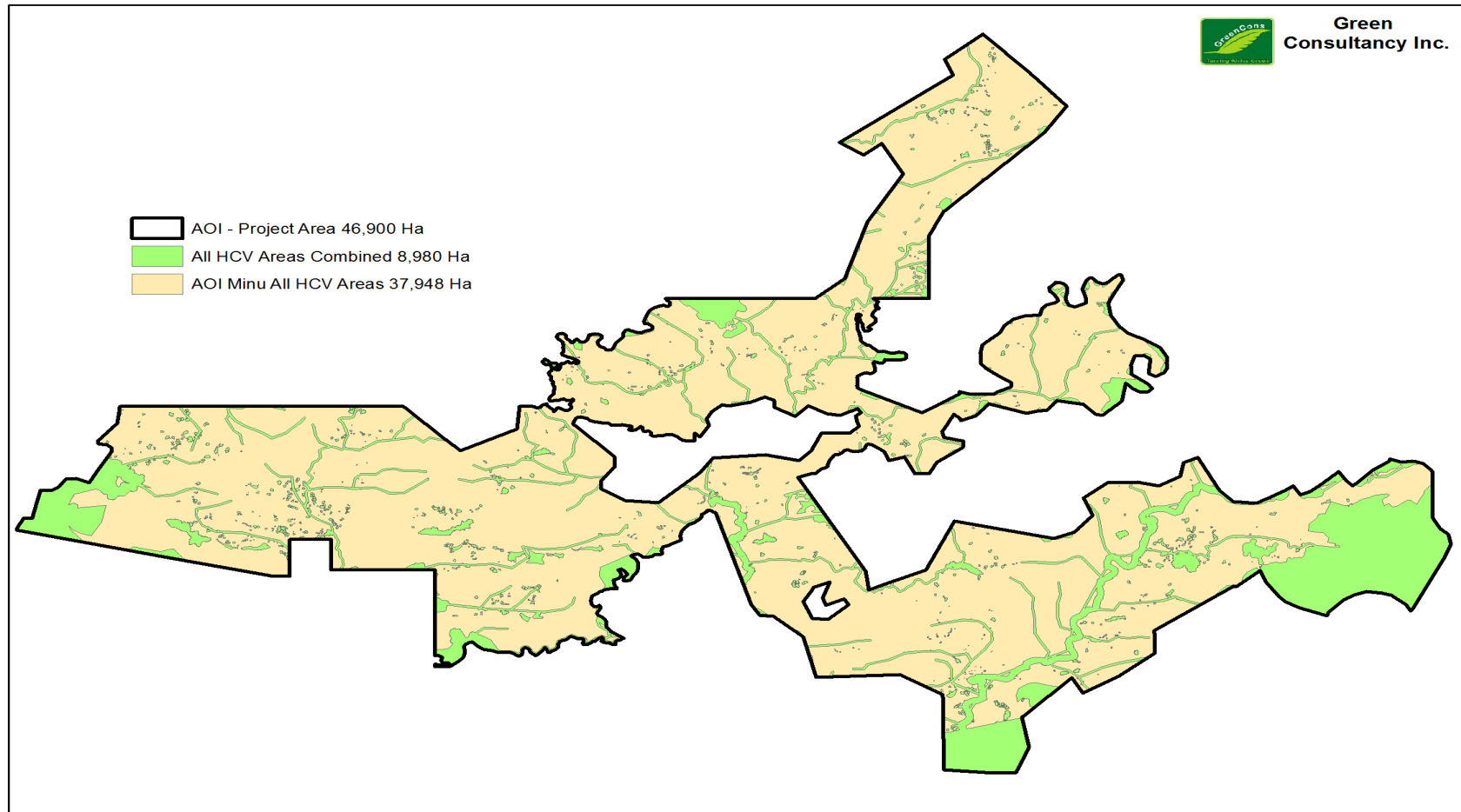


Figure 10: Combined HCV Area

## **SUMMARY OF PLANS**

The summary tables below (Tables 2 and 3) outline environmental and social conditions that will potentially arise as a result of GVL oil palm operations and related mitigation measures proposed in the ESIA. The phase of operation and associated regulations area also provided. The goal of these mitigation measures are to maintain or improve environmental quality of the landscape and improve the quality of life of local residents; ensuring livelihoods and cultural heritage are maintained or enhanced.

Table 2: Potential Environmental Impacts Identified and Proposed Mitigation Measures as Defined in the ESIA/SEIA

No	Potential Impact	Receptor(s)	Proposed Mitigation Measures
1	Water quality deterioration and change in local hydrology	Aquatic flora and fauna and human population reliant on natural water sources	<p><b>Buffer Zone</b> Ensure appropriate buffers are set aside along rivers and streams to ensure its integrity and other aquatic life forms. The buffer reserves will serve as natural filters for surface runoff from the plantation areas. The reserves will also play a major role in protecting the banks of the waterways from channel erosion. In addition the reserves will create aesthetic scenes along the watercourse.</p> <p><b>Fertilizer Application at the Plantation</b> Judicious use of both organic and inorganic fertilizers will be ensured as much as possible. The fertilizers will be applied around each oil palm tree in shallow rings. This is to ensure that the fertilizer is available to the young transplanted oil palm trees. No broadcasting of fertilizers will be undertaken</p> <p>The use of herbicides will not be encouraged on the plantation. Control of weeds will be done manually. Labor-intensive approach using simple farm tools like hoes and cutlasses will be employed. Organic farming practices will help eliminate the use of inorganic fertilizers and herbicides that are major contributors to surface water quality deterioration.</p> <p>The use of pesticides on the plantation will be minimized. The main control methods for pests and diseases will involve the use of resistant hybrids, trapping/scaring of animals, protecting young plants with collar wire and destroying nestling/breeding areas of pests. A constant phyto-sanitary observation will be maintained to help prevent the outbreak and spread of any potential disease/pest into the whole plantation.</p>
2	Air quality deterioration	Workers/ Local communities	Burning of biomass will not be allowed. Most biomass generated will be made available to the local people as fire wood.

No	Potential Impact	Receptor(s)	Proposed Mitigation Measures
			Remaining trees and cleared under brushes will be chipped and formed into windrows. Windrowing will involve arranging the vegetative wastes in rows following the dominant local wind direction, to facilitate natural decomposition of stacked wastes.
3	Noise nuisance	Workers/ Local communities	<p>Earthworks and other construction activities will be phased out or controlled to reduce noise generation during construction.</p> <ul style="list-style-type: none"> <li>• All construction and earthworks will be done during daytime to avoid disturbing the serene nights of the local communities.</li> <li>• Ear muffs will be provided for workers where necessary</li> </ul>
4	Solid waste management issues	Workers	<ul style="list-style-type: none"> <li>• The proposal to phase the development will generate biomass which could be manageable at a given time.</li> <li>• Salvaging of useable biomass can significantly reduce the volumes of waste that has to be disposed of.</li> <li>• Felled trees and cleared under- brushes will be chipped and formed into windrows and allowed to decompose.</li> <li>• Other solid waste like food wrappers, containers and food waste to be disposed of at the District Assembly's designated dump site.</li> </ul>
5	Loss of biodiversity	Terrestrial flora and fauna	<p><b>Phasing of Oil Palm Development</b> Clearance of vegetation will be phased to reduce the impacts of vegetation removal on terrestrial flora and fauna.</p> <p><u>Directional clearing</u> Directional clearing or felling of trees towards the riparian forested areas along the to allow mobile fauna to seek refuge and migrate to densely forested areas</p> <p><u>Biodiversity Plots</u> Biodiversity plots will be established within the oil palm plantation. Biodiversity plots will also be provided along the waterways and streams within the concession.</p> <p><u>Alternative Fauna Habitats</u></p>

No	Potential Impact	Receptor(s)	Proposed Mitigation Measures
			The Biodiversity plots will serve as alternative habitats for fauna in the TKN AOI. According to Payne (1997), biological control of rats may be achieved by leaving about 5% of plantation land under forest in the form of riparian and hill/steep land reserves.
6	Soil stability and erosion	Soil/ water courses	Sensitive sites with high erosion risk will be identified. Such areas shall not be cultivated and will include hill-tops and very steep slopes having gradient of 25% or more. Vegetation of such areas shall be maintained to help control erosion as well as ensuring soil stability.
7	Impact on soil fertility and acidification	Soil/water courses	Judicious use of especially inorganic fertilizer will be ensured throughout the life of the project to help conserve the environment. Application will be carried out in August and October of the transplanting year. The fertilizers will be applied around each oil palm tree in shallow rings. This is to ensure that the fertilizer is available to the young transplanted oil palm trees. No broadcasting of fertilizers will be undertaken.
8	Biomass generation and CO2 balance	Air	The phasing of the project will reduce the impact to the barest minimum.
9	Pest Infestation	Terrestrial flora	The main control methods for pests and diseases will involve the use of resistant hybrids, trapping/scaring of animals, protecting young plants with collar wire and destroying nestling/breeding areas of pests. A constant phyto-sanitary observation will be maintained to help prevent the outbreak and spread of any potential disease/pest into the entire plantation
10	Solid waste management issues	Workers/ Local communities	<b>Domestic/Office Waste</b> Adequate litter bins will be placed at vantage-points to minimize littering of the site by workers. The contents of these bins would be emptied at an appropriate central point and sent to a designated waste dump site. Biomass: Salvaging of useable biomass can significantly reduce the volumes of waste that has to be disposed of.
11	Food security	Local communities	The local people living on the concession will not be resettled.

No	Potential Impact	Receptor(s)	Proposed Mitigation Measures
			<p>They will be allowed to farm on their own plots of land within the acquired concession. GVL will engage with communities to provide support for improved farming methods and practices including lowland farming and other forms of sedentary farming practices that maximizes land use.</p>



**Table 3: Potential Environmental Impacts Identified and Proposed Mitigation Measures as Defined in the ESIA/SEIA**

No	Potential Impact	Receptor(s)	Proposed Mitigation Measures
1	Land acquisition and compensation issues	Land owners/ farmers	<p>Ensure that appropriate documents are in place with record of community consent (FPIC) to offer land. Participatory map prepared for project land offered by community</p> <p>Appropriate compensation procedures will be followed to ensure that payments made to Project-Affected-Persons (PAPs) are within legal requirements. This is in line with the Ministry of Agriculture price listing for compensation of crop.</p> <p>Monetary compensations will be paid to people whose farms or crops will be destroyed due to the development. GVL will assess the farms and crops to be affected and evaluate these properties accordingly with the assistance and guidance of local MOA assigned personnel. Appropriate budgetary allocations have been considered to take care of this issue.</p> <p>Compensation payment will be made directly to affected farmers and individuals to avoid future problems from other people purporting to be family members. To facilitate this therefore, a committees have been formed to ensure that fair compensation are paid to the right individuals. The committee comprises farmers and representatives selected from each town.</p> <p><b>Community Sensitization Program</b></p> <p>The Company has established a community affairs department to engage with community people on various projects related activities and undertake community sensitization programs which are ongoing. Working groups have also been established comprising of community selected representatives who will liaise with the company on an ongoing basis for peaceful coexistence, community relations for project implementation, resolution of grievances and dissemination of project information</p>
2	Employment issues	Local communities	<p>Members of the communities to be given priority for employment by GVL as much as possible</p>

No	Potential Impact	Receptor(s)	Proposed Mitigation Measures
			<p>GVL to consider the hiring of women in its operation</p> <p>Adequate medical and insurance coverage to be made available to all employees</p> <p>GVL to work with local education authorities to identify persons who can be sponsored by the Company to pursue further training in the field of Agriculture.</p>
3	Cultural sites	Local communities	The sacred sites including graves and cemeteries on the concession will, with the agreement of the community be well demarcated and the area not cleared for development.
4	Influx resulting to inappropriate interaction with communities, crime, use of alcohol and disagreeable behavior	Local communities	<ul style="list-style-type: none"> <li>• GVL will respect the legal, social and ecological integrity of communities lands</li> <li>• The communities would be kept abreast of the development plans of the project</li> <li>• GVL to ensure that personnel are properly informed on the correct protocol for interaction with the local communities</li> <li>• GVL to ensure workers interference with the communities is minimal</li> <li>• Drugs and alcohol use by workers within the Concession during work hours would be prohibited</li> </ul>
5	Occupational health and safety issues	Workers	<p><b>Provision of Personal Protective Equipment (PPE)</b></p> <p>Personal protective equipment/apparels such as Wellington boots/safety boots, respirators/nose masks, gloves, overalls and raincoats will be supplied to field workers in suitable and adequate proportions. Supervisors will be charged to enforce the use of these gears.</p> <p>Personnel in charge of pesticide application will wear all the PPE specified on the product labeling for “pesticide applicators and other handlers.” All PPE will be inspected each day of use for leaks, holes, tears, or worn places. Damaged PPE will either be repaired or discarded.</p> <p><b>Use of Experienced Personnel in handling Machinery</b></p> <p>Only experienced personnel will be engaged to operate any</p>

No	Potential Impact	Receptor(s)	Proposed Mitigation Measures
			<p>machine or equipment. The project will ensure that drivers and earth-moving equipment handlers possess certificate 'A' driving license and license weight requirement of at least 160kg respectively.</p> <p>Initial training in machinery handling and safe working procedures will be given to all new drivers, operators and other field workers to help minimize the occurrence of accidents on site.</p> <p>Safety Training for Agro-chemical Handling</p> <p>The Company will conduct safety training for pesticide handlers and all agricultural workers. The training program will include handling of agro-chemicals, use of PPE and what to do in the case of pesticide exposure.</p>
6	Sanitation problems	Workers	<p>A place of convenience will be provided at the site to discourage free-range defecation. In addition, field workers will be encouraged to use places of convenience available at nearby communities. Waste bins will be provided at appropriate and convenient places to minimize littering of the site. Wash rooms and changing rooms will also be provided for workers</p>
7	Aesthetics and visual intrusion	Workers/ Local communities	<p>Phasing of the clearing of the site will help reduce this impact</p>
8	Presence of workforce- Loss of wildlife from hunting and conflicts with human	Terrestrial flora and fauna/worker	<ul style="list-style-type: none"> <li>Employee education and notification will be implemented to reduce vehicle-wildlife collisions and conflicts</li> <li>Workers of GVL would be prohibited from hunting, trapping, killing, harming or capturing of any wildlife</li> <li>Employee education and notification to be implemented to ensure workers are aware of the need to preserve wildlife and to reduce wildlife/roadway conflicts</li> <li>Warning signs indicating hunting/capturing of wildlife is prohibited would be placed at strategic HCV areas</li> </ul> <p>Any occurrences of wildlife trapping and trading observed will be reported to the EPA and FDA</p>
9	Biodiversity management	Terrestrial flora and fauna/Workers	<p>Management of riparian zones and other HCVs, wildlife conservation awareness for employees and surrounding</p>

No	Potential Impact	Receptor(s)	Proposed Mitigation Measures
10	Occupational health and safety	Workers	<p>communities, enforcement of no hunting policy for employees</p> <p><b>Adoption of Health and Safety Policies</b>  GVL will educate workers on its health and safety policy. The adoption of a health and safety policy at site will serve as a precautionary measure to prevent/minimize the possibility of accidents and reduce health risks. Ensure workers are properly oriented to the safety and health rules Well-equipped first aid kits would be provided at all work sites</p> <ul style="list-style-type: none"> <li>• Employ a medical personnel to be stationed at the Base Camp and workers trained in first aid should be present at all campsites</li> <li>• Adequate signage should be erected, especially in hazardous areas</li> <li>• Machines are to be operated by competent, licensed and authorized personnel only and in a manner that does not endanger other employees or the Company's property</li> <li>• The Emergency Response Plan would be made aware to all relevant personnel and the necessary training and resources required should be provided;</li> <li>• Protective gears and clothes must be provided to employees and should be worn at all times during operation.</li> <li>• Provide potable water for employees</li> <li>• Conduct periodic fogging to prevent mosquito breeding</li> </ul>

## **SUMMARY OF HCV MANAGEMENT AND MITIGATION PLAN**

The GVL management plan should include and implement specific measures that ensure the maintenance and/or enhancement of the applicable conservation attributes consistent with the precautionary approach. It is recommended that monitoring at different increments depending on the HCV shall be conducted to assess the effectiveness of the measures employed to maintain or enhance the applicable conservation attributes. Adaptive management will be central to the monitoring and evaluation process.

Management strategies for HCVs vary, from total protection of a species or area, to special strategies undertaken that allow harvesting, road building and silviculture operations but with conditions. These management strategies should be found in the company's Standard Operating Procedures. All applicable management strategies and special considerations should also be relayed to contractors prior to operations and actively monitored during operations.

Monitoring of HCV management strategies can be through a number of processes. Superintendents monitor harvesting operations by daily contact with contractors and by checking their progress through on-line operating maps that are updated daily. They also perform on-site monitoring at least weekly.

In order to determine the effectiveness of the management strategies, in many cases GVL should rely on institutions with which it has "agreements" to the High Conservation Values apart from GVL's internal HCV (environmental) management unit. An advisory committee of NGOs and organizations with experience in conservation agreements with communities has been advised.

An integrated management and monitoring strategy is provided in the final chapter of the HCV Assessment report. The following headings are used, going into detail on each of the topics:

1. Collaboration with Local Communities
2. Socialization and Delineation of HCVs
3. Biodiversity
4. HCV Forests
5. Riparian Forests
6. Wetlands
7. Water Quality
8. Management and Monitoring Plans & SOPs

Individual HCV management and monitoring summary points are provided in Table 4 below.

**Table 4: HCV Management and Monitoring Recommendations Summary**

HCV	Objective	Management Recommendation	Monitoring Recommendation
1	<p>The objective of HCV 1 management is to maintain concentrations of biodiversity values in the AOI and neighboring landscape. Such values have been identified in remaining forests still in good condition, wetlands, riparian forests, and areas providing connectivity or a buffer to these areas.</p>	<ul style="list-style-type: none"> <li>• Demarcate boundaries of HCV areas</li> <li>• Maintain and establish riparian buffers</li> <li>• Maintain and buffer wetlands (including mangroves)</li> <li>• Maintain and buffer forests identified as HCV</li> <li>• Do not develop oil palm in areas identified as “No-go Zones”</li> <li>• Reduce hunting pressure</li> <li>• Collaborate with local communities to maintain environmental values</li> <li>• Maintain or improve water quality in all rivers in the area of operations</li> <li>• Establish a biodiversity management and monitoring program with assistance of specialists in this area</li> <li>• Conduct RBAs in areas where chimpanzees have been documented in the AOI and/or reported by community members or workers. These should be undertaken by qualified chimpanzee experts.</li> <li>• Establish a human-wildlife conflict plan focusing on chimpanzees</li> <li>• Ensure land clearing is undertaken such that it flushes wildlife into adjacent forests rather than isolating individuals in small forests or areas that will be cleared</li> </ul>	<ul style="list-style-type: none"> <li>• Ongoing, routine monitoring of riparian buffer condition</li> <li>• Routine water quality surveys in rivers and wetlands</li> <li>• Ongoing monitoring of land cover change in the AOI and surrounding landscape</li> <li>• Ensure the completion of a rapid biodiversity assessment (RBA) by species specialists prior to development of areas</li> <li>• Biodiversity monitoring</li> <li>• Monitor the success of community engagement initiatives to offset environmental impacts (e.g., reduce hunting of HCV species)</li> <li>• Use of adaptive management to evaluate and adjust management and monitoring activities as necessary</li> </ul>
2	<p>The objective of HCV 2 management is to protect landscape level ecosystems and mosaics by maintain the integrity of the forests that are part of the HCV 2 landscape adjacent to the AOI and the biodiversity</p>	<p>As per HCV 1</p>	<p>As per HCV 1</p>

	within it. This includes relatively small areas of HK3 and HK2 forest that extend into the AOI and mitigating potential impacts on adjacent forests.		
3	The objective of HCV 3 management is to protect ecosystems and habitats that are naturally rare, have become rare due to historical processes, or threatened by present or future processes. This includes high density forests (HK3) and medium density forests (HK2) when adjacent to high density forests, wetlands that are inundated year round and coastal wetlands (mainly consisting of mangrove forests).	As per HCV 1	As per HCV 1
4.1	The objective of HCV 4.1 management is to protect areas that are critical for the maintenance of fragile or rare aquatic ecosystems, essential for the regulation of the flow of rivers and streams, preventing severe floods, or maintaining water quality.	<ul style="list-style-type: none"> <li>• Demarcate boundaries of HCV areas</li> <li>• Maintain and establish riparian buffers</li> <li>• Maintain and buffer wetlands (including mangroves)</li> <li>• Collaborate with local communities to maintain environmental values</li> <li>• Maintain or improve water quality in all rivers in the area of operations</li> </ul>	<ul style="list-style-type: none"> <li>• Ongoing, routine monitoring of riparian buffer condition</li> <li>• Routine water quality surveys in rivers and wetlands</li> <li>• Ongoing monitoring of land cover change in HCV 4.1 areas</li> <li>• Monitor the success of community engagement initiatives to offset environmental impacts (e.g., encroachment into riparian forests)</li> <li>• Use of adaptive management to evaluate and adjust management and monitoring activities as</li> </ul>

			necessary
4.2	The objective of HCV 4.1 management is to protect areas that are critical for the prevention of soil erosion.	<ul style="list-style-type: none"> <li>• Establish clear SOPs for identifying high erosion risk areas and how to prevent erosion</li> <li>• Demarcate boundaries of HCV areas</li> <li>• Maintain and establish riparian buffers</li> <li>• Collaborate with local communities to maintain environmental values</li> </ul>	<ul style="list-style-type: none"> <li>• Ongoing, routine monitoring of land clearing operations to ensure SOPs are being followed</li> <li>• Ongoing, routine monitoring of riparian buffer condition</li> <li>• Routine water quality surveys in rivers and wetlands</li> <li>• Ongoing monitoring of land cover change in HCV 4.2 areas</li> <li>• Monitor the success of community engagement initiatives to offset environmental impacts (e.g., encroachment into riparian forests)</li> <li>• Use of adaptive management to evaluate and adjust management and monitoring activities as necessary</li> </ul>
5	The objective of HCV 5 management is to maintain areas that are fundamental for the basic necessities of local communities.	<ul style="list-style-type: none"> <li>• Collaborate with local communities to realistically and accurately calculate HCV 5 resource needs and ensure enough area is allocated to meet these needs.</li> <li>• Demarcate boundaries of HCV areas</li> <li>• Participatory mapping of important NTFP collection sites</li> <li>• Maintain and establish riparian buffers</li> <li>• Maintain or improve water quality in all rivers</li> </ul>	<ul style="list-style-type: none"> <li>• Ongoing, routine monitoring of riparian buffer condition</li> <li>• Routine water quality surveys in rivers and wetlands</li> <li>• Ongoing monitoring of land cover change in HCV 4.1 areas</li> </ul>



		<p>in the area of operations</p> <ul style="list-style-type: none"> <li>• Maintain and buffer wetlands (including mangroves)</li> </ul>	<ul style="list-style-type: none"> <li>• Monitor the success of community engagement initiatives to meet HCV 5 needs (e.g., protein needs, farm lands)</li> <li>• Use of adaptive management to evaluate and adjust management and monitoring activities as necessary</li> </ul>
6	<p>The objective of HCV 6 management is to maintain areas that have been identified in collaboration with communities as cultural values critical to the traditional cultural identity of local communities.</p>	<ul style="list-style-type: none"> <li>• Collaborate with local communities to definitively map HCV 6 areas and appropriate buffer zones necessary to protect these sites. During land clearing, clearly demarcate boundaries of HCV 6 areas to prevent unintentional clearing. Recruit appropriate community member(s) to be present onsite during land clearing to ensure no mistakes are made.</li> <li>• Establish an SOP that provides a clear system of communication between communities and GVL and within GVL that insures that any issues involving HCV 6 sites are addressed immediately.</li> </ul>	<ul style="list-style-type: none"> <li>• Onsite monitoring of land clearing activities by communities when operating near HCV 6 sites</li> <li>• Monitor the success of SOPs designed to avoid HCV 6 areas</li> <li>• Monitor community satisfaction with company performance and ability to maintain HCV 6 values amidst oil palm plantation operations</li> <li>• Use of adaptive management to evaluate and adjust management and monitoring activities as necessary</li> </ul>

## **Proposed Development Plan**

GVL aims to commence planting in 2014, and carry out planting over a three year period. Planting will be carried out with targets of 7,000 ha land preparation and 7,000 ha of planting each year (see table below), subject to adjustment based on community MOUs and final planning. Palm seedlings for the planting sites are already being cultivated on previous nursery site in Kpanyan district. The entire area where the nursery site is located has since been permitted by the EPA and covered under New Planting Procedures which included HCV assessment for 8,000 ha in Kpanyan District.

**Table 5: Time Plan for New Planting**

<b>GVL Block Area (Ha)</b>	<b>Left out of Planting (Ha)</b>		<b>Net area of cultivation of palm oil (forecast)</b>	<b>Activity (ha)</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>Future</b>	<b>Total</b>
Gross Area: 46,900 hectares*)	HCV/riparian zone/old town	8,960	Concession area	Land Preparation	7,000	7,000	7,000	9,340	30,340
	Road & other infrastructure	1,200		Planting	7,000	7,000	7,000	9,340	30,340
	Nursery	200	Out-Growers Area	Land Preparation	0	1,400	1,400	3,400	6,200
				Planting	0	1,400	1,400	3,400	6,200
			Total	Land Preparation	7,000	8,400	8,400	11,000	36,540
	Total	10,360		Planting	7,000	8,400	8,400	11,000	36,540

*\*) Note: This total area includes 29,483 ha under a new EPA permit area and areas within an existing + 74000 ha area already permitted by the EPA)*

At present no clearing to facilitate planting has commenced. In line with the RSPO guidelines and procedures, clearing is expected to commence upon certification and approval of NPP related reports and completion of FPIC processes. Within three years, approximately 20% (approximately 5,800 Ha) of the planned planting area will be developed for communities as part of an out grower program, as per the Concession Agreement. The exact areas will be decided upon further consultations and agreement with the respective communities.

Communities in the AOI have been actively engaged and consulted regarding GVL's development plans. The entire development processes, including the RSPO process flow chart and extent of local community involvement required for the management of HCVs within the project area has been communicate with local communities in the proposed development areas. To date, every community and town has enthusiastically consented to use of their customary land by the company for oil palm cultivation and have all willingly agreed to work in cordial harmony with the company. To solidify this understanding, GVL and communities have been revising drafts of MOUs between GVL and communities detailing the overall agreement to allow oil palm development and associated obligations of each party.

## VERIFICATION STATEMENT

GVL opted for desktop audit against relevant documents, Haeruddin, BSI's auditor conducted desk review and discussion with GVL management to verify and review the relevant New Planting Procedure documents from 05th – 07th August 2014. Subsequently, GVL prepared and submitted the correction of documents through email for verification purposes until completed by BSI on 02nd September 2014.

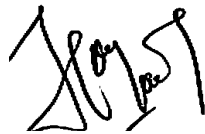
The auditor conclude that the social and environmental assessment were comprehensive, detailed and professionally carried out. The management plan has incorporated the findings from Social and Environmental Impact Assessment conducted by government-approved consultants as well as the High Conservation Value assessment findings by qualified consultants, approved by RSPO.

Based on the latest RSPO announcement related New Planting Procedure where NPP report submission after 1st August 2014 shall include the requirement of criterion 7.8 of the RSPO P & C 2013. Identified and estimated of carbon stock and minimize net GHG emission plan will be submitted to the "Emission Reduction Working Group –ERWG" before end 2014.

It is the opinion of BSI audit team through desk review that Golden Veroleum (Liberia) – TKN Project has complied with the RSPO New Planting Procedures comes into effect 1st January 2010 and confirmed that the documented assessment reports and plans are comprehensive and in compliance to RSPO New Planting Procedures.

Signed on behalf of

BSI Group



**Haeruddin**

Auditor

Signed on behalf of

Golden Veroleum (Liberia) Inc.



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**Matt Karinen**

Director