Southern Southeast Area
Forest Inventory
Of
State Forest
And
General Use Lands
Draft

July 25, 2011

State of Alaska
Department of Natural Resources
Division of Forestry

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Forest Inventory
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Purpose:
The purpose of this inventory was to provide a source for the Southern Southeast Area (SSE) Division of Forestry (DOF) staff to reference area resource information. The following information was developed as a part of this project:

1. Forest Resources
   This inventory data provides a central source representing conditions of State forest resources in SSE such as timber stands, forest roads, streams, lakes, eagle nests, etc. within the SSE. Such information is typically used for developing FYSTS, FLUPs and guiding other management operations such as timber sale preparation or stand improvement.

2. The Annual Allowable cut (AAC) for the SSE.

3. A database that could be used to track reforestation and precommercial thinning activity on State harvested land.

Design:
The inventory covers all State of Alaska owned General Use (GU) classified lands and legislatively designated State Forest lands within the SSE. The State land base in SSE encompasses the major islands of Mitkof, Kupreanof, Kuiu, Etolin, Wrangell, Prince of Wales, and Revillagigedo, and the surrounding smaller islands south of Fredrick Sound. In addition, the land base includes the mainland from Thomas Bay to Hyder. This inventory does not represent land owned by the University of Alaska (UA) or the Alaska Mental Health Land Trust (AMHLT).

The inventory focused on lands that are available for timber harvest, as identified in the ADNR's area plans. Area plans are long range planning documents prepared to determine the acceptable different uses of State land in regional areas. The two planning documents covering SSE used as references were the Prince of Wales Island Plan and Central/Southern Southeast Plan.

The area plans delineate the acceptable uses on state lands and are referred to in the plans typically by a proximate geographic name and a numeric designator. Wherever possible this nomenclature was carried through to label resource interest items within the area plan subunit. In areas designated as GU, specific areas are often excluded or restricted from forest management. The inventory areas and the specific plan restrictions pertaining to forest management are summarized in Exhibit B.

Over the course of the project, discerning current land ownership proved to be a challenge; the State Land Records Information System was the basis for starting current

ownership verification efforts. In some cases major discrepancies, pending actions or encumbrances with in State ownership made the process onerous. At the time of this report the land depicted was considered to be State ownership. This perspective in large part has to do with the fluid nature of the major State land action settlements and conveyances I.E. AMHLT land settlement, community entitlements and settlements with the UA.

The areas targeted for commercial forest management were quantified based on aerial photo analysis. Several different photo sets and orthophotos of varying ages and quality were used as reference (Exhibit E). In some remote areas (Ingraham Bay, Kendrick Bay, Rowan Bay, South Lindenberg), the information developed is relatively course in nature. As better and more current information is made available it will be refined as plans mature.

The photo analysis was augmented by judicial use of ground and aerial reconnaissance, old records from the USFS (vegetation models, etc.) and historical timber sale knowledge accumulated by personnel working in the area. DOF staff nominally visited the majority of the areas listed in this report from 2004-2008. However, not all timber type polygons were visited or verified on the ground. Volume classifications attributed to the timber types were based on staff experience, not on a defined sampling system.

An ESRI personal database was developed to contain and organize the information accumulated. Separate layers were developed to record information pertaining to GU lands, timber types, roads, streams, lakes, property lines, rock pits, eagle trees, state pre-commercial thinning and state timber sales (proposed, active and closed). A data dictionary was then developed to define the acceptable parameters of the data (see Exhibit C). A graphic representation of the data was not made part of this report, due to the size of the data base. Due to the multitude of recorded variables, graphic maps of the features will be developed as needed electronically. All distances and acreages referred to in the report and data were developed using the tools associated with the ESRI GIS Arc Map 9.3.1 software.

Annual Allowable Cut Analysis:

In developing the AAC, DOF assumed that the majority of the timber harvested in the region will be by the clear cut method. Stands were therefore referenced primarily as monocultures by their age and their individual characteristics at the time of the inventory. The DOF is required to manage its' timber harvest on a sustained yield basis. "Sustained Yield" means the "achievement and maintenance in perpetuity of an annual or regular periodic output of the various renewable resources of the State land consistent with multiple use" (AS 38.04.910).

The allowable cut calculation method that best utilizes existing information is the area regulation method. The area regulation method involves determining the net-forested acres available for harvest and dividing that number by the rotation period. The rotation period is the average time it takes to grow a commercial stand of trees. A 100-year

rotation has been the established standard for Southeast and was used by the DOF in this calculation. This rotation age could be adjusted in the future when more scientific information is available. Initial studies indicate that a rotation age as low as 70 –80 years may be feasible on managed lands in Southern Southeast Alaska.

The area plans are the governing source for gross available acreage. For the purpose of this analysis, total uplands administered by the DNR in the Southern Southeast Area was not computed due to the dynamic nature of the State land base. The DNR through the area plans has accounted for a variety of uses for forest lands including, but not limited to settlement, timber harvest, recreation and fish and wildlife habitat. The area plans depict forest management activities (timber harvest) as an appropriate use of the forest resource on land classified as General Use (GU). The DOF has estimated that out of the total state acreage in the SSE, the total General Use (GU) land type at present is approximately 24,956 acres. In addition to the GU land, the legislature in 2010 and 2011converted 48,472 acres of previously classified GU lands to State Forest. The combination of these two land classes (73,428 acres) represents that gross amount of land that is potentially appropriate for commercial forest management.

From the gross forest management land base, the vegetative cover characteristics were classified into water, muskeg, non-productive land (scrub) and several different timber types that have the capability of having commercial value. The "commercial" classification is based on the stand's timber characteristics not its economic operability. The following four vegetative (cover) types have the potential to grow or produce marketable timber:

Old Growth (G)
Old growth timber was defined as a stand of timber exhibiting characteristics of an over-mature stand generally with no manmade disturbances that has log size characteristics that would produce a saw log as defined by the Pacific Northwest Scale Bureaus.

Mature Second Growth (S)
Timber in this type is predominately second growth timber that has log size characteristics that would produce a saw log as defined by the Pacific Northwest Scale Bureaus. Timber in this size class is at or nearing the stand rotation age within the next 25 years for that site.

Pole Class Second Growth (P). This timber is second growth timber that has an average present diameter at four feet above the projected stump height of 6" and larger but not meeting the (S) class above.

Reforestation (R)
Second growth stands not presently meeting the above classes.

Within the commercial timber type classification, volume classes were assigned and the level of stocking was estimated based on aerial photos. The commercial viability of the

individual stands was not evaluated in an objective manner during the initial analysis. Although a variety of information was developed for the files that will influence the perspective of future operations. The overall operability of a given area is based on a variety of factors that change over time such as market location, harvest methods, species and timber quality. These things will also be further influenced over time by technology, world markets and access.

From the vegetative cover types capable of growing commercial timber (G,S,P and R), reductions were taken for 100 foot no harvest retentions along known anadromous and high-value resident fish water bodies and various other exclusion zones (eagle trees, established subdivisions, etc.) detailed in the area plans yielding a forested commercial timber base totaling 46,673 acres.

Bald eagle nest trees are generally found to be located near shorelines based on USFW data. The eagle tree data in the past has not been known to be accurate; it was therefore assumed for the purposes of this analysis that the majority of the acreage taken up by protecting eagle trees (per FPRA) would be accounted for with the shore side exclusion areas along coastal tidal areas. The majority of the management subunits require shore side management areas of 300 feet or greater. In other areas it has been the DOF's experience that 300 feet has been emphasized for its importance and requested reserved by ADFG for habitat. DOF for this analysis therefore removed the first 300 feet of land from the shoreline from the timber base in all areas. In the past ten years DOF and ADFG have worked to maintain this average shore distance of 300 feet based on accessibility, timber quality and habitat. The result of this has been that a leave area in excess of 300 feet from the saltwater shoreline has been maintained as well as the preservation of the targeted radius of 330 feet of no harvest around located eagle trees.

Given the above forested commercial timber base, it could then be evaluated to estimate the operable timber base (OTB). All old growth and second growth stands (mature second growth, pole, and young regeneration) were included in the OTB for this report. The OTB at this time was assumed to be the same as the forested commercial timber base acreage. This decision was based on the conservative perspective taken on the exclusion zones and the trend of higher yields documented in the second growth stands.

When the total OTB acreage (46,673 acres) is divided by the 100-year rotation period, an annual allowable cut of 467 acres is derived. Based on USFS and DOF experience with the old growth timber in SSE, an average volume of 26 MBF (MBF = 1 thousand board feet) per acre was applied, yielding an allowable cut of 12,135 MBF per year. Old growth yields generally tend to be less than second growth.

Stratification of the data by age yields numerous perspectives. The data presents several distinct age classes that are separated by significant amounts of time. Based on this observation it is likely that future timber supplied off of state land will be limited or stratified by available saw log size, even if political and market demand are favorable, no matter what volume of timber is harvested at present.

The SSE was conveyed to the State primarily for community grant land; a significant amount of the land base is centered on areas that were initially used as logging camps for the USFS long term timber sales. In most of these areas a significant percentage of the land is covered with second growth. Through observation and historical knowledge, the second growth stands over 20 years old, are high index sites due to the way the timber base was logged during that period of time. These sites could potentially be pre-commercially managed to increase their effective yield and shorten their rotation age. The information gathered in this report sets the stage for that decision process but is not detailed enough of an inventory to determine if the perceived gaps in useable supply can be manipulated effectively or if rotation age can be managed for a shorter span of time.

As of the publication of this report, the new City and Borough of Wrangell has requested Community grant land as part of their entitlement from the State. A portion of the land requested is within the SSE timber land base. The actual selection has yet to be determined.

Exhibit A
Statistical Summary
State Forest and GU Land Combined
Timber Type Summary

Timber Type	Total Timbered State Land Acres	% By Acres
0	3,676	8%
1	12,688	27%
2	10,768	23%
3	1,759	4%
4	221	0%
P	4,493	10%
R	9,087	19%
S	3,981	9%
Total OTB	46,673	100%

Rotation Period	**100**
Total Annual Allowable Cut Acreage	**467**
Average Volume/ Acre (MBF)	26
Estimated Annual Allowable Cut (MBF)	**12,135**

OTB = Operable Timber Base
MBF =Thousand Board Feet

See Exhibit C for description of timber types.

Exhibit B
Inventoried Subunits
Qualifying Notes

Coastal shoreline retention of 300 feet maintained on all subunits. Some areas this distance or greater is specified in other cases it has been developed in past FLUPS or assumed it would be a likely FLUP outcome in the future.

Settlement areas removed. All State subdivisions were given a retention area of 100 feet.

All anadromous streams were given a 100 foot retention area on either side of the stream per AS 41.17118(a) (1). Streams of significant length and size (over 1 mile long) with multi-species runs or streams specifically called out in the plan were given a retention area of 300 feet. The retention area reflects the intent of AS 41.17.118(a) (2) and past experience working with timber in these areas.

Central/ Southern Southeast Area Plan

P-01 Thomas Bay (Mainland)
Deleted area on the west side of the Patterson River (subdivision). Deleted the Patterson River delta area for wildlife habitat potential. Coastal retention area of 300 feet was removed along with 300 feet retention adjacent to Peterson River. Cover types based on USFS data.

D-01 Port Delores (Suemez Island)
Provided for 100 foot buffer adjacent to anadromous streams.
Cover types based on USFS data.

U-02 Rowan Bay (Kuiu Island)
Provided 500 foot coastal retention.
Provided for 300 foot buffer adjacent to anadromous stream 109-52-10040.
Cover types based on USFS data.

Mitkof Island

P-14 Falls Creek
Provided for 500 foot retention on Falls Creek 106-44-10060.
Provided for 300 foot retention on anadromous stream 106-44-10060-2005.

P-23 East Mitkof
Excluded area between Mitkof Highway and coast.
Provided for 150 foot retention on Mitkof Highway.
Provided for 300 foot retention on anadromous stream on 108-40-10600.
Coastal retention of 500 feet.
Cover types based on USFS data.

P-25 South Mitkof
Excluded area between Mitkof Highway and coast.
Provided for 100 foot retention on Mitkof Highway.
Provided for 300 foot retention on anadromous stream 108-40-10450.
Cover types based on USFS data.

P-27 Wood Pecker Cove
Provided for 300 foot retention on anadromous stream 108-40-10430.
500 foot coastal retention.
Provided for 100 foot retention adjacent to unnamed anadromous streams.
Provided for 100 retention along southern mainline road.
Cover types based on USFS data.

P-28 Fredrick Point
Pan Creek is to be retentioned 300 feet on both sides.
Provide a 100 foot retention either side of the Waterline Road north of Cabin Creek.
Provide a 500 foot coastal retention.
Retention State subdivision by 100 feet.

P-30 South Lindenberg
Provided for 300 foot coastal retention.
Removed subdivision.
Cover types based on USFS data.

Areas removed from inventory:
P-02 View shed.
P-03 GU, Plan specifically prohibits timber harvest.
P-04 Airport.
P-05/6/7/8/9/10 RU.
P-29 RU.
P-13 AMHLT Replacement Pool.
P-15 Ru.
P-16 Pt.
P-19/20/21 RU, Ha.
P-22 Crystal Lake Hydro.
P-24 Ru/Ha.
P-31 S/ Ru.

Wrangell

W1 Crittenden Creek
500 foot retentions each side of Crittenden Creek. 1,000 foot retentions each side of Crittenden Creek estuary and tidelands at the mouth of creek. This extends a significant distance inland based on photo analysis and USFS data. 500 foot coastal retention elsewhere. Harvest activities should not be visible from Eastern Passage; this was not modeled in the development of operable acreage. Selective harvest between 500 feet and

1000 feet was proposed; this also was not modeled. Cover types based on USFS and State interpretation of data.

W-02 Zarembo Island
Coastal retention of 500 feet. Selective harvest 500 to 1,000 feet from coast, not modeled. Provided for 100 foot retention adjacent to unnamed anadromous streams.

W-08 Eastern Passage
500 foot State Creek retention was mentioned in plan was not taken due to it being determined in the Eastern Passage (EP) Timber Sale FLUP as not necessary.
Retention around State subdivisions by 100 feet.
Provide a 500 foot coastal retention. In Section 35, no harvest from the road to shore was originally specified in the area plan. This was modified to reflect actual road location used in EP FLUP. The road constructed was moved upslope out of the coastal retention.

W-10 Pat Creek
1000 foot wide vegetated corridor maintained along the valley bottom connecting Pat Creek to Hermit Creek.

W-12 Earl West Cove
Provided for 500 foot retention on Earl West Creek (107-40-10780).
Old growth in Sections 2 and 35 east of Earl West Cove Recreation Area was removed due to harvest restrictions.
Provided for 500 foot coastal retention

W-27 Pat Creek Uplands
Provided for 100 foot retention adjacent to subdivisions.
Provided for 300 foot retention on McCormack's Creek.
Provided for 1000 foot corridor in valley bottom of Hermit Creek and Pat Creek (W10).

W-19, 20, 21, 22 Bradfield Canal Areas
This area had no recent photography. The Bradfield River is a dynamic flood plane with a large estuary zone that will significantly influence practical timber operations. Known streams were given retention per FRPA. A coastal retention of 500 feet on all subunits was used. Power line and powerhouse facilities were deducted. Lake Tyee watershed deducted.

Areas removed from inventory:
W-03 Airport.
W-06 Su.
W-07 Mill Creek Ru, Pr, Gu not practical for timber management given other uses.
W-13 Ha/S/Gu.
W-14 Ha/S/Gu.
W-15/16 Gu/Su Olive Cove dropped due to small size and isolation combined with subdivision on front half.

W-17 H/Pr/Hv.
W-28 Ru.

Ketchikan Area

K-02 Neets Bay
500 foot coastal retention.
Provided for 100 foot retention adjacent to lakes.
Provided for 300 foot retention on Neets Creek.
Hatchery area excluded.

K-04 Traitors Cove Subunit
This subunit contains a USFS log transfer facility retained by the USFS.

K-09 Moser Bay
300 feet retention area on Anadromous Stream 101-90-10600 (Wolf Creek).
300 foot coastal retention.

K11 Bat Point/ Leask Cove
500 foot coastal retention
Proved for 100 foot retention on each side of anadromous streams
Provided for 100 foot retention adjacent to subdivisions

K-17 West George Inlet
Shore retention of 300 feet.
Anadromous Stream 101-45-10450 retention of 300 feet.

K-24 Slide Ridge

K-33 Vallenar Bay
Vallenar Creek retention area 300 feet. Plan proposes 500 feet management area as determined per ADFG in FLUP (not modeled for inventory).

K25 North Gravina Island
500 foot coastal retention.
Provided for 100 foot retention adjacent to subdivision.

K-41 Bostwick
Bostwick Creek and Lake retention area 300 feet.

Areas removed from inventory:

C-01 Sunny Cove. Gu. AP restricts all development.
C-02 Square Island. Gu. AP restricts all development.
C-03 Spacious Bay. Gu. AP restricts all development.
C-04 Ru/Pr.

K-03 Ru/Pr West Side Traitors Cove.
K-07/8 Ru/Pr.
K-11 Bat Point. Drop areas not in State Forest due to Su.
K-13 Ru/Pr.
K-16 Ru/Pr Lake Hariet Hunt.
K-18 Rd.
K-21 Gu AMHLT Replacement Pool.
K-26 Su.
K-27 S/Ru/H.
K-28 Airport.
K-29 Ru K-50 Ha/Hv.
K-37 W/Ru.
K-39 Ru/Gu AP restricts.
K-43 Mountain Point. Gu/W. DMLW wants it for S.
K-45 Ru/Pr.
K-46 Ru.
K-47 Ru. Dall Head Marine Park.
K-56 Settlers Cove Park.
M-01/2 Duke Island. Gu. AP restricts development.

Prince of Wales Island Area Plan

Subunit 1 Salmon Bay
Exchange Cove GU AMHLT exchange pool. Removed from consideration.
All other land is Ru, therefore removed from consideration.

Subunit 2 Point Baker/Port Protection
Port Protection All Ru therefore removed from consideration.
Hole in the Wall Lake All Ru therefore removed from consideration.

Subunit 3 Shakan
No state upland ownership.

Subunit 4a El Capitan
Coastal retention of 400 feet specified in the POW Plan.
Deleted R areas.
Visual buffer required in plan for the lake; used 300 feet.
Retention of 300 feet on anadromous stream 106-30-10800.

Subunit 4b El Cap Island
Island zoned for Settlement and Forestry. DMLW requested retention area on southern lagoon and the northern area due to existing lodge. Retention of 500 feet given on the lagoon and portion of the southern part of the island dropped. Northern area utilized the standard 300 foot shore retention.

Subunit 5a Whale Pass
Deleted existing subdivision and P/Ha and Ru areas.

Subunit 6a Coffman Cove
Deleted subdivision and S/R and Ha areas.
Anadromous streams 106-30-10120 and 106-30-10160 used 300 foot retention.

Subunit 7a Sea Otter Sound
No state upland ownership.

Subunit 7b Tuxekan Island

Subunit 7c Naukati
Deleted settlement areas and P/Ha and Ru.
300 foot retention on Yatuk, Guchi and Naukati Creeks.

Subunit 8b Edna Bay
Deleted Subdivision and P/Ha and Ru and W.
100 to 300 foot retention/management zone specified on Charlie Creek (this document used a 300 foot retention area for planning).

Subunit 9 Coronation.
No state upland ownership.

Subunit 10a Heceta Island
Removed Ru and S.

Subunit 10b Shaheen
All State land Ru; removed from consideration.

Subunit 11a Control Lake
Dropped S area near Control Lake.
A 100 foot no-cut retention area on the State highways.
A 300 foot retention on Control Lake.
The property lines in this subunit do not follow the protracted Public Land Survey lines due to an error in survey instructions in the original conveyance to the State. No intent by DMLW to change the property lines. The lines platted and surveyed on the ground are generally off 400 feet to the east from the protracted location. The actual survey line on the ground and recorded is the actual property line.

Subunit 11b Karta Bay No State uplands.

Subunit 11c Thorne Bay
Water Lake has a City of Thorne Bay ordinance defined no harvest in watershed to protect the drinking water source. The watershed was deducted.
S and R areas removed.

Subunit 12a and b Kasaan/Hollis
Removed S/W/Ha and R.
A 300 foot retention on Harris and Indian Creek.

Subunit 12c Kasaan Bay
Coal Bay
Retention area of 300 feet on anadromous streams 102-60-10640 and 102-60-10620.
All R land removed.

Subunit 12d,e and f Lower Twelvemile Arm, Polk Inlet, Skowl Arm
No state upland ownership; area removed from consideration.

Subunit 13a West Cholmondeley
No state upland ownership; removed from consideration.

Subunit 13b East Cholmondeley (Kitkun Bay)
Provided for 100 foot buffer on each side of anadromous streams.

Subunit 14a Dickman Bay
No state upland ownership.

Subunit 14b Moria Sound
Nowiskay Cove
Retention area of 300 feet around anadromous stream 102-30-10900.

Menefee
All land R/H removed from further consideration.

Subunit 14c
Ingraham Bay
Removed 400 feet in selected areas for future settlement.
Retention area of 300 feet on anadromous streams 102-20-10210 and 10220-10170.

Subunit 15a Kendrick Bay
Removed 400 feet in selected areas for future settlement.
Retention area of 300 feet on anadromous stream 102-10-10050.

Subunit 15b Cape Chacon
No state upland ownership.

Hook Arm
Retention area of 100 feet on anadromous stream 104-30-10490.
Retention area of 500 feet on shore.

Exhibit C
Data Base Dictionary

Timber Theme Data Dictionary

Cover Characteristics

Water Body	W
Muskeg/Bog	M
Scrub/Nonproductive Site	N
Reproduction	R
Pole Timber (6"+)	P
Mature Second Growth	S
Old Growth	G

Species

1) Define Majority Species	
2) Define 2nd Species if > 20%	
Spruce	1
Hemlock	2
Red Cedar	3
Yellow Cedar	4
Cottonwood	5

Volume Class for Saw-log Stand

< 10 MBF per acre	0
10 – 20 MBF per acre	1
20 – 30 MBF per acre	2
30 – 40 MBF per acre	3
> 40 MBF per acre	4

Stand Origin Date/ Age

Old Growth	1600
For 2nd Growth	year of previous harvest

Stand Stocking Level

Low	1
Medium	2
Full	3
Overstocked	4

Exhibit C
Data Base Dictionary

Water body Theme Data Dictionary

Type

Cataloged Anadromous	1
Non-cataloged Anadromous	2
Water Quality Class C Stream	3
Water Quality Class D Stream	4
General Water Quality Stream	5
Resident fish	6

Classification History

Water body Visited		
	Yes	1
	No	2
Date Visited		mm/dd/yyyy
Reach Class Verified on State Lands by ADF&G		
	Yes	1
	No	2

Exhibit C
Data Base Dictionary

Road Theme Data Dictionary

Road Types

Permanent Road	1
Temporary Road	2
Inactive Road	3
Road Closed and Water bared	4
Road Closed with Natural Reclamation	5
Proposed Road	6

Road Condition

Good	1
Functional	2
Drivable with Care	3
Un-drivable	4

Material Sites

Unusable for Rock Source	1
Expandable	2

Exhibit D
Bibliography

Catalog of Waters Important for the Spawning, Rearing or Migration of Anadromous Fishes-Southern Region, Effective June 1. 2009. Published by the Alaska Department of Fish and Game. March 2009.

Central/ Southeast Area Plan published by the Alaska Department of Natural Resources in November 2000.

Prince of Wales Area Plan published by the Alaska Department of Natural Resources in October 1998.

Prince of Wales Island Area Plan Amendment published by the Alaska Department of Natural Resources in May 2008.

University Land Grant List published by the Alaska Department of Natural Resources in 2005, Revised 2010.

1966 black and white digital ortho-photography from USFS GIS database.

2006 color digital ortho-photography from USFS GIS database.

Ortho-photographs made for the US Census Bureau for the 2010 census.

Ortho-photographs made for the Ketchikan Gateway Borough in 2001 and 2008.

Selected ortho-photographs from Quickbird, 2008.

Selected ortho-photographs from Digital Globe, 2004.

State of Alaska, Land Records Information System, May 17, 2011.

Dennis Landwehr, USFS Tongass Soils Scientist – provided first hand knowledge and historical air photos of Kosciusko Island.

Greg Roberts, Forester, USFS Wrangell Ranger District – provided Forest Service inventory maps for Zarembo and Wrangell Eastern Passage area.

Sean Meiers, Forester, USFS Thorne Bay Ranger District – provided local knowledge of Kosiusko, Tuxekan, and Heceta.

POW Inventory Project contracted 2004 with Alan Rockwood. This project did an initial inventory of POW State lands in GU classification. This contract set up the database structure and beta tested on POW the concepts used in the final product.

Contributing Personnel

Greg Staunton, Regional Resource Manager, Lead.
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