TRPA
APC
PACKETS

JUNE
1988
TAHOE REGIONAL PLANNING AGENCY
ADVISORY PLANNING COMMISSION

NOTICE IS HEREBY GIVEN that the Advisory Planning Commission of the Tahoe Regional Planning Agency will conduct its regular meeting at 9:30 a.m. on June 15, 1988, at the TRPA office, 195 U.S. Highway 50, Zephyr Cove, Round Hill, Nevada. The agenda for said meeting is attached hereto and made a part of this notice.

June 6, 1988

By: William A. Morgan
   Executive Director
   Tahoe Regional Planning Agency
AGENDA

I CALL TO ORDER AND DETERMINATION OF QUORUM

II APPROVAL OF AGENDA

III DISPOSITION OF MINUTES

IV PUBLIC HEARING AND RECOMMENDATION

A. Amendment of Chapter 4 (Project Review and Exempt Activities), Amendment of Appendix A

B. Buehler, Reclassification of Land Capability Due to Man-Modification Status, APN 07-180-05, Douglas County

V PLANNING MATTERS

A. Discussion of Proposed Revisions to Chapter 91 (Air Quality Controls) of the Code of ordinances

B. Status Report on Preparation of Scenic Package, Including Sign Ordinance

VI REPORTS

A. Executive Director

B. Legal Counsel

C. APC Members

D. Public Interest Comments

VII CORRESPONDENCE

VIII PENDING MATTERS

IX ADJOURNMENT
PUBLIC HEARING NOTICE

June 21, 1988

Subject: Adoption of Amendments to the TRPA Land Capability Overlay Maps for Tahoe City and Lake Forest

Dear Property Owners:

The TRPA, as part of the Tahoe City community planning process, is considering amendments to the TRPA Land Capability Overlay Maps. This amendment will update and change the designated land capability in the Tahoe City community plan area as shown on the attached map. The land capability study on which this amendment is based is available at the TRPA offices.

There will be a public hearing at the TRPA Advisory Planning Commission meeting on Wednesday, July 13, 1988, at the Fairway Community Center, 330 Fairway Drive, Tahoe City, California.

There will also be a second public hearing at the TRPA Governing Board meeting on Wednesday, July 27, 1988, at the TRPA offices at 195 Highway 50, Round Hill, Nevada.

If you have any questions, contact Gordon Barrett at the address or phone number listed above. Written comments may be submitted up to July 27, 1988.

By:

W.A. Morgan
Executive Director
DAVIS²  
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September 27, 1987  

Tahoe City – Lake Forest Plan Area  
Soils Investigation  
for  
Tahoe Regional Planning Agency

Introduction:

This is a report of soils and stream environment zones in the Tahoe City area and Lake Forest plan areas. It was performed by DAVIS² Consulting Earth Scientists in association with Mr. Grant M. Kennedy, Mr. Lawrence E. Welch, Soil Scientists and Dr. Clarence M. Skau, Hydrologist, at the request of the Tahoe Regional Planning Agency (TRPA) to verify Land Capability (Code of Stendards, Subccepter 20) and to identify stream environment zones using two methods; (1) Those described in Chapter 3, Volume II of the Handbook of Best Management Practices; (2) Those described in Section 37.3 of the TRPA Code.

Field work for this project was conducted in August, September and October, 1987. In general the area comprises the commercial area of Tahoe City along Highway 89 and Highway 28 and in the Lake Forest area, that portion of commercial property either side of Lake Forest road, south of Lake Forest Glen Unit No. 1 (please refer to the attached maps for the exact boundary delineations).

Because of the size and complexity of the study area, the report narrative is broken into smaller areas generally divided by major roadways, streams or other land features to relate pertinent information regarding Land Capability verifications.

Procedure:

The areas were studied utilizing existing TRPA soils mapping, aerial photography (U.S.D.A.–U.S. Forest Service, 1939, 1972, 1983; Cartwright Aerial Surveys, 1962; Andregg Inc., 1964–65; U.S.D.A. Soil Conservation Service, 1967), and U.S. Geological Survey 7.5 minute quadrangle of Tahoe City (1969 photo revised). The area was also reconnaissance surveyed on the ground. Areas exhibiting soil physical properties, drainage conditions or vegetation patterns determined to be different than presently mapped were more intensively examined, using soil auger borings or by road cut inspections. The soil in the quarry on the
western border of the study area was described in a backhoe pit. Vegetation species and growth
patterns were used as indicators of soil drainage conditions in some cases.

- Area 1 - Lake Forest
  Environmental Setting:

  This area is shown on TRPA map sheet D6 (Dollar Point) to be mainly within
  a delineation of JhC (Jabu stony sandy loam, moderately fine subsoil variant, 2 to 9
  percent slopes) with a smaller portion represented as Gr (Gravely alluvial land).
  The geology map (Mathews, 1968) shows this area to be within a unit of Qt (Recent lake
  beds). The geomorphic analysis (Bailey 1974) shows this area to be within two
  delineations, E2 (Outwash, till, and lake deposits) and E3 (Alluvial lands).

  Typical vegetation is Jeffrey pine (Pinus jeffreyi), wyethia (sp.), bitterbrush
  (Purshia tridentata) and perennial grasses. A drainage way along Main Street displayed
  willow (salix), alder (Alnus rhombifolia) and perennial grasses.

  Topography in the study area is fairly level with an incised drainage
  (piped at depth) running north to south through the west - central portion.
  This area receives local storm drainage from the north, east and west.

  The Lake Forest area is heavily developed with small lots consisting of both
  residential dwelling units and commercial establishments.

Findings:

  All of the area with the exception of a narrow strip of land adjacent to Main
  Street was found to be fairly uniform with respect to soil type. It exhibited a grayish
  brown medium acid gravelly sandy loam surface over a light yellowish brown massive
  brittle and hard gravelly clay loam subsoil. This unit occurs on the western side of the
  area and was verified on the northeast side as well. A typical profile description was taken
  near the intersection of Aspen Street and Hillcrest Avenue in the abandoned roadway
  easement.

  The area along Main Street exhibited a very dark grayish brown
  mixed very gravelly fill over mottled black and dark grayish brown loam underlain
  by mottled dark brown, reddish yellow and strong brown silty clay loam. The
  mottled colors are indicative of wetness. The representative soil profile description
  was taken at the intersection of Hillcrest Avenue and Main Street.

Conclusions:

  The majority of the Lake Forest area is placed in soil unit JhC (Jabu
  stony sandy loam, fine subsoil variant, 2 to 9 percent slopes). The area adjacent to

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Main Street is placed in the unit Lo (Loamy alluvial land).

JhC receives Land Capability class 5 with 25 percent allowable coverage. Lo is placed in Land Capability class 1b with an allowable 1 percent impervious coverage. Please refer to the attached map for delineation of the Land Capability districts.

Area 2 - Tahoe City; Cathedral Drive north to the Truckee River

Environmental Setting:

This area comprises the land from approximately 450 feet north of Cathedral Drive, 500 feet west of Highway 89 to Tonopah Drive. It spreads westward from Tonopah Drive to the Truckee River and includes both private and U.S. Forest Service ownership. Land north of Tahoe Tavern, including Tavern Shores, is also included in Area 2.

This area is shown on TRPA map sheet C-7 as having three soil delineations: TdD (Tallac stony coarse sandy loam, 5 to 15 percent slopes); JhC (Jabu stony sandy loam, fine subsoil variant, 2 to 9 percent slopes); Gr (Gravelly alluvial land). The geology map, by Mathews (1966), shows this area to be in delineations of Qlo (Older lake beds) and Qm (Glacial moraines). The geomorphic analysis by Bailey (1974) of this area shows delineations E1 (Moriae land undifferentiated) and E2 (Outwash till and lake deposits).

The area has three fairly distinct landforms: a high bluff composed of glacial till materials; an intermediate terrace; and lower position flat lands. The two lower position landforms consist of lacustrine sediments with seeps and springs surfacing along transitions zone from high to low topography.

Typical vegetation is white fir (Abies concolor), Jeffrey pine, Incense cedar (Libocedrus decurrens) and manzanita in the well drained areas. Seeps display willow, alder, sedge and juncus.

Findings:

Soils were found to be different on each land form. The upper unit was determined to be the Tallac series as presently mapped and no further investigation of that unit was carried out.

The intermediate land form west of Highway 89 was found to display a well or moderately well drained slightly acid brown sandy loam surface over a yellowish brown gravelly sandy loam subsoil, underlain by brittle dark grayish brown sandy loam lacustrine parent materials. This soil was examined in a construction pit at the intersection of Tonopah Drive and Highway 89. The representative pedon was described...
from an auger boring, near the southwest corner of Comstock Village. This unit extends north of Tonopah Drive to the slope break where seeps and springs surface to ponding. Soils surrounding the ponds in this area are somewhat poorly and poorly drained with color mottling and riparian vegetation as indicators of wetness.

The well or moderately well drained soils are similar to the Jabu series as mapped in the Lake Tahoe Basin. The somewhat poorly drained soils resemble the Jabu, seeped, soil.

Lower position soils are derived from alluvium of mixed sources. Most of the area displays a well drained grayish brown slightly acid gravelly sandy loam surface over pale brown slightly acid very gravelly sandy loam. This soil has the same taxonomic classification as the Tallac series. It has similar hydrologic properties. This low position soil has not been previously recognized in the Tahoe Basin and differs from other established units because it has formed from river flood plain materials rather than from glacial sources. It lacks a fragipan at depth.

A wet soil area along the intermediate to low position transition zone adjacent to the Jabu seeped unit was found to have the same properties as Gr (Gravelly alluvium), originally mapped nearby. It was poorly or very poorly drained. Inspection of aerial photography between 1964 and 1965 showed that fill material had been placed along the terrace transition zone.

A strip of land influenced by wetness along the Lake front also has properties similar to Gr or Be (Beaches) where wave action from the Lake has routinely reworked alluvial materials.

Conclusions:

Soils displaying characteristics similar to Jabu are placed in the soil unit JaC (Jabu coarse sandy loam, 0 to 9 percent slopes) and in Land Capability class 5. This unit is assigned an allowable coverage of 25 percent. The Jabu, seeped unit is placed in JbD (Jabu coarse sandy loam, seeped, 2 to 15 percent slopes) and receives Land Capability class 3 with 5 percent allowable coverage.

The soil unit with properties similar to Tallac soils, for the purpose of this report, will be called "Soil A" and would be placed in Land Capability class 5. This soil is assigned 25 percent allowable coverage. Gr (Gravelly alluvium) and Be (Beaches) are assigned Land Capability class 1b with 1 percent allowable coverage.

- Area 3 - Tahoe City; The quarry and west

Environmental Setting:

This area is located west of Fairway Drive and north of the Truckee
River. Some of the area has been previously used as a gravel quarry. Several hundred vertical feet of sand and gravel material have been excavated from the mountainside. A leveled surface is currently being utilized as parking for the rafting industry and as a construction corporation yard for heavy equipment maintenance and storage. It is shown on TRPA map sheet C7 as being within soil unit Px (Pits and dumps). Five commercial lots, extending from the quarry to the western study boundary, are steeply sloping down to Highway 89. Leveled parking areas surrounding buildings have been excavated into the hillside, and paved.

Between Highway 89 and the fence surrounding the maintenance yard at the quarry site, Jeffrey pine and willow has been established by landscaping efforts. Leveler areas of the quarry were void of vegetation. Cut slopes ranged from 40 to 68 percent and were sparsely vegetated with rabbitbrush (Chrysothamnus viscidiflorus) and mountain whitethorn (Ceanothus cordulatus). Slopes under 50 percent were moderately vegetated.

The area south of Highway 89 is mostly associated with the Truckee River flood plain and alluvial terraces. Portions of the properties along the River are shown to be influenced by the Standard Protected Flood. (Dept. of the Army, Sacramento District, Corps of Engineers, 1971). The geology map (Mathews, 1968) shows this area to be within two units, T9A (andesite) and Qlo (Older lake beds). The geomorphic analysis (Barley, 1974) shows this site to be in units D1 (Tee slope lands) and E2 (Outwash, till and lake deposits).

Riparian vegetation, largely willows and alders, grows along the Truckee River flood plain.

Findings:
A backhoe pit was examined in the level portion of the quarry area, near the western fence separating the corporation yard from the parking lot. This pit displayed a very tightly compacted, platy, olive brown very gravelly sand and sandy loam surface over mixed very tightly compacted massive very dark grayish brown very gravelly sandy loam and sandy clay loam, underlain by stratified beds of light olive brown silt. The excavation was moist from 14 to 54 inches. The steep cut slopes surrounding the quarry had a thin mantle of loose mixed andesitic and gravelly colluvial material over exposed older lake terrace.

The area west of the quarry consisted of soils derived from andesite resembling the Jorge soil series.
Conclusions:

Most of the quarry area is disturbed and absent of soil processes. It is presently accurately mapped as P1 (pits and dumps). This unit is assigned Land Capability class 1c with 1 percent allowable coverage.

A small portion of the quarry site and the area west of the quarry, excluding paved parking areas and structures, is representative of the soil unit JwF (Jorge - Tahoma very stony sandy loam, 30 to 50 percent slopes). This unit is assigned Land Capability class 2 with allowable coverage of 1 percent.

Land between Highway 89 and the Truckee River remains as mapped: JhC (Jabu stony sandy loam, 2 to 9 percent slopes); Gr (Gravelly alluvial land), with the lower lands within the Projected Standard Flood zone. JhC receives Land Capability class 5 with 25 percent allowable coverage; Gr and the Projected Standard Flood are Land Capability 1b with 1 percent allowable coverage.

- Area 4 - Tahoe City: All the area encircled by Fairway Drive and Grove Street, in addition to land between Highway 28 and the Lake.

Environmental Setting:

This area has andesite materials adjacent to and upslope of old lake deposits. In some places the andesite has overrun the lake terraces. The old lake beds along the public beach area dip, creating a concave shaped landform northwest of the commercial lots. There, fine textured alluvium has accumulated under a marsh-like condition. Most of the golf course has been developed on the marsh land. Several perennial streams interfere the golf course. They have been piped underneath the commercial lots and Highway 89 to outlet in the Truckee River. The Highway 28 - 89 "Y" area was historically the confluence of several small perennial streams before they were captured by piping.

TRPA map sheet C7 shows most of this area to be within a delineation of Gr (Gravelly alluvial land) and only a minor portion to be within JhC (Jabu stony sandy loam, moderately fine subsoil variant, 2 to 9 percent slopes). The geology map shows (Mathews, 1968) the area within delineations of Qlo (Older lake beds) and TvA (andesite). Geomorphic analysis (Bailey, 1974) shows the area to be within delineations E2 (Outwash, till and lake deposits) and E3 (Alluvial lands).

Topographic high areas display vegetation consisting of Jeffrey pine, White fir, Incense cedar, wyethia and perennial grasses. Concave landforms and stream zones display willow, alder, aspen, sedge, juncus and perennial grasses.
Findings:

The area adjacent to Fairway Drive and Highway 89 was formed from andesitic materials over lacustrine sediments. This soil was described on Fairway Drive approximately 600 feet north of Highway 89. The soil displayed a brown medium acid gravelly loam surface over a variegated light yellowish brown and brown medium acid very gravelly clay loam, underlain by firm white lacustrine sediments. This soil was determined to be similar to the Fugawee soil series. Elsewhere along Fairway Drive, on moderately sloping terrane, the soils were found to be similar to the Jabu series as presently mapped. Stream environment zones have incised the Jabu unit in several places.

Soils on concave landscapes within the golf course area exhibit very dark gray mildly alkaline clay or silt clay surfaces, under fill materials some places. Subsoils were light gray mildly alkaline clay, to greater than 4 feet depth. These soils were described from auger borings, one in the parking lot near the school ball field behind the Family Tree restaurant, and from other borings inside a roped off parking lot east of the Shell service station at Highway 89. Soils such as these have not been described in the Lake Tahoe Basin.

Soils on the tilted lake beds were found to be moderately well drained with a slightly acid dark brown sandy loam surface over a variegated strong brown and dark brown slightly acid gravelly clay loam subsoil, underlain by cemented lacustrine sediments. These soils are similar to the Jabu moderately fine subsoil variant. The Jabu soil was described on a gently sloping northwest facing surface, northeast of the Gallery. This terrace, adjacent to the Lake shore, terminates as an escarpment with slopes exceeding 30 percent, running from northeast to southwest, from the Firehouse to Grove Street. This terrace is dissected by a small stream zone (now piped) leaving an island of higher ground between the "Y" and Mackinaw Road.

Soils along the Lake frontage, at the public beach and below Mackinaw Road are wet and/or subject to wave action and fluctuating lake water levels. Lake frontage soil units are complexes of Be (Beaches) and Gr (Gravelly alluvium).

Road ditches, in places, along Fairway Drive and Grove Street conduct active water and support riparian vegetation.

Conclusions:

The small area of Fugawee soils is placed in soil unit FuD (Fugawee very stony sandy loam, 2 to 15 percent slopes). This unit is Land Capability class 5 with 25 percent allowable coverage. For unnamed soils in the golf course and topographic low position areas surrounding the Highway 28-89 "Y", a "Soil B" designation is proposed with Land Capability class 1b and allowable coverage of 1 percent.

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The tilted terrace along Highway 28, or core commercial area, is placed in JhC (Jabu stony sandy loam, moderately fine subsoil variant, 2 to 9 percent slopes). This unit receives Land Capability class 5 with 25 percent allowable coverage.

Areas along the Lake shore are Gr (Gravelly alluvial land) and Be (Beaches) with Land Capability class 1b and allowable 1 percent coverage.

- Area 5 - Tahoe City; From Grove street to the eastern boundary

Environmental setting:

This area is heavily developed with commercial shops and paved parking areas. It comprises soils formed from lacustrine sediments and from andesitic materials (possibly colluvial). TRPA map sheet C-7 shows the soils to be mainly FuD (Fugawee very stony sandy loam, 2 to 15 percent slopes), JhC (Jabu stony sandy loam, moderately fine subsoil variant, 2 to 9 percent slopes) and Gr (Gravelly alluvium). The geology map (Mathews, 1968) shows this area to be in older lake beds. Geomorphic analysis (Bailey, 1974) shows this area to be in geomorphic unit E2 (Outwash, till and lake deposits).

An order 2 stream used to flow from where the service station presently sits at the corner of Jack Pine Street and Highway 28, down through the public library parking lot, and over to a path between the Boat Works and Safeway shopping areas. It has been rerouted and straightened to flow directly from above the service station, due south, to down between the Fantasy Inn and the Safeway parking lot where it rejoins the pre-existing drainage near the Boat Works. The paved shopping mall parking lot in front of the library, the Boat Works and the Round House diverts Highway 28 storm runoff water all the way to the Lake.

Findings:

The area mapped FuD was inspected in several place along Pioneer Way and Tahoe Street and found to exhibit physical properties (soil texture, depth and drainage) similar to the Fugawee series. It was considered to be accurately defined on TRPA map sheet C-7 and was not changed.

The State Park and the area, northeast of Tahoe Street was found to be poorly drained, growing willow, alder and juncus vegetive types, and consistant with the Gr unit as mapped.

A narrow strip along Highway 28, between the State Park and the east boundary, and a land remnant in the Safeway parking lot were found to have physical properties similar to those described on the dipping terrace near the Gallery, and left in JhC, as mapped.

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Four lots on the far east end of the project were noted as derived from volcanic sources on slopes between 15 and 30 percent. These soils were deep and well drained, similar to the Jorga series.

The area of land in the vacuity of the library, Round House and Boat Works has been extensively altered. Because of improvements consisting of paving and underground utilities, field investigations were primarily surficial; they were supplemented with aerial photography to determine the extent of change.

The lawn area near the Boat Works appears to have emerging springs, and much of the pavement in front of the Round House displays signs of alligator cracking or symptoms of subgrade failure due to saturated conditions. Drainage has only slightly improved in this area which used to be stream environment. At best it reflects a soil with hydrologic properties similar to Jabu sandy loam, seeped variant.

Conclusions:

With the exception of the rerouted drainage down through the Round House - Boat Works area, and soils on the four east end lots in the survey area, Land Capability districts remain unchanged.

The rerouted drainage is an order 2 stream and requires 50 feet setbacks to improvements on either side of the center of the flow line. The area which was originally the old stream zone has slightly improved drainage but still exhibits signs of seasonal wetness and is placed in JbD (Jabu coarse sandy loam, seeped, 2 to 5 percent slopes). This unit is Land Capability class 3 with 5 percent allowable coverage.

Soils on the four lots at the northeast end of the study area are JWE (Jorga - Tahoma very stony sandy loam, 15 to 30 percent slopes) rather than Rx (Rock outcrop and rubble land). JWE is Land Capability class 4 with 20 percent allowable coverage.

Please refer to the attached map for proper capability district delineations.

Respectfully submitted,

[Signature]

Sidney Davis,
Certified Professional
Soil Scientist No. 1031
Representative soil Profiles:

Lake Forest:

Profile No. 1

Location: Near intersection of Hillcrest Avenue and Aspen Street

Vegetation: Jeffrey pine, wyethia perennial grasses, bitterbrush

Soil Classification: Fine-loamy, mixed frigid Ultic Haploxeralfs

Soil Series: Jabu moderately fine subsoil variant

0
1 to 0 inches, litter and duff.

A11 0 to 10 inches, grayish brown (10YR 5/2) gravelly sandy loam, dark brown (10YR 3/3) moist; moderate fine granular structure; soft, friable, slightly sticky and slightly plastic; many fine and medium, few coarse roots; many very fine and fine interstitial pores; medium acid; 15 percent gravel; clear smooth boundary.

A12 10 to 14 inches, grayish brown (10YR 5/2) gravelly sandy loam, dark brown (10YR 3/3) moist; weak fine granular structure; soft, friable, slightly sticky and slightly plastic; many fine and medium common coarse roots; many very fine and fine interstitial pores; medium acid; 15 percent gravel; clear wavy boundary.

B1 14 to 23 inches, brown (7.5YR 5/4) gravelly loam, dark brown(7.5YR 3/4) moist, weak fine subangular blocky structure; slightly hard, friable, sticky and slightly plastic; many fine and medium few coarse roots; common very fine tubular and interstitial pores; medium acid; 15 percent gravels; gradual smooth boundary.

B21t 23 to 30 inches, light yellowish brown (10YR 6/4) gravelly clay loam, dark yellowish brown (10YR 4/4) moist; moderate medium subangular blocky structure; hard, firm, sticky and plastic; common very fine and fine roots; few very fine and fine tubular pores; few thin clay films on ped faces; medium acid; 15 percent gravel; gradual smooth boundary.

B22t 30 to 36 inches, light yellowish brown and brownish yellow (10YR 6/4, 6/6) gravelly clay loam, dark yellowish brown and yellowish brown (10YR 4/4, 5/6) moist; moderate medium angular blocky structure; hard, firm, sticky and plastic; few very fine and fine roots; few very fine and fine tubular pores; many moderately

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thick clay films on ped faces; medium acid; 25 percent gravel; gradual smooth boundary.

823tx 36 to 55 inches, brownish yellow (10YR 6/6) gravelly clay loam, dark brown (10YR 3/4), moist; massive; hard, very firm, sticky and plastic; many moderately thick clay films coating mineral grains; medium acid; 35 percent gravel; gradual, smooth boundary.

B3tx 55 to 60 plus inches, light brownish gray (2.5Y 6/2) very gravelly clay loam, dark grayish brown (2.5Y 4/2) moist; massive; hard, very firm, sticky and plastic; many moderately thick clay films coating mineral grains; medium acid; 35 percent gravel.

Lake Forest: Profile No. 2

Location: Intersection of Hillcrest Avenue and Main Street

Vegetation: Willow, alder, perennial grasses

Soil Classification: Loamy, mixed, frigid Aquic Haploxeralfs

Soil Series: Unknown

C 0 to 14 inches, dark brown (10YR 4/3, 3/3) very gravelly mixed fill material

A1 14 to 20 inches, black (10YR 2/1) loam, moist, with many medium faint mottles of dark grayish brown (10YR 4/2); strong medium granular structure; hard friable, slightly sticky and slightly plastic; common very fine, fine and few medium roots; common very fine and fine interstitial pores; slightly acid; clear, smooth boundary.

A3 20 to 26 Inches, very dark brown (10YR 2/2) with many medium distinct mottles of very dark brown (10YR 3/3) loam, moist; moderate fine subangular blocky structure; slightly hard; very friable; slightly sticky and slightly plastic; common very fine, fine, medium and few coarse roots; pores and reaction as above; gradual smooth boundary.

B21t 26 to 36 Inches, dark brown (10YR 3/3) silty clay loam with many coarse prominent mottles of strong brown (7.5YR 5/6); strong medium subangular blocky structure; hard, friable, sticky and plastic; common very fine and fine roots; common very fine and fine tubular pores; many thin clay films on ped faces and

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in pores; slightly acid; gradual wavy boundary.

B22t 36 to 40 inches, mottled dark brown, reddish yellow and strong brown (10YR 3/3, 7.5YR 6/6, 4/6) silty clay loam; strong subangular blocky structure; hard, firm, sticky and plastic; common thin clay films on ped faces and in pores, slightly acid; manganese concretions.

Tahoe City Soil Profile No. 1

Location: Near south west corner of Comstock Village
Vegetation: Fir, Jeffrey pine, Incense cedar, manzanita
Soil Classification: Coarse-loamy, mixed frigid, Ultic Haploxeralfs
Soil Series: Jabu

0 1 to 0 inches, twigs, conifer needles and duff.

A11 0 to 4 inches, brown (7.5YR 5/4) sandy loam, dark brown (7.5YR 3/4) moist; weak medium subangular blocky structure parting to weak fine granular; soft, friable, nonsticky and nonplastic; common fine and medium roots; common fine tubular pores; slightly acid; 10 percent gravel; clear smooth boundary.

A12 4 to 14 inches, brown (7.5YR 5/4) sandy loam, dark brown (7.5YR 3/4) moist; weak fine subangular blocky structure; soft, friable, nonsticky and nonplastic; common fine, medium and coarse roots; common fine interstitial pores; slightly acid; 10 percent gravel gradual smooth boundary.

B1 14 to 30 inches, yellowish brown (10YR 5/4) gravelly sandy loam, brown (10YR 4/3) moist; weak medium subangular blocky structure; hard, friable, nonsticky and nonplastic; common fine, medium and coarse roots; few fine tubular pores; few thin clay films in pores; medium acid; 15 percent gravels; gradual smooth boundary.

B21t 30 to 48 inches, light yellowish brown (10YR 6/4) and yellowish brown (10YR 5/6) sandy loam (near loam) dark grayish brown (10YR 4/2) moist; moderate medium angular blocky structure; hard, friable, slightly sticky an slightly plastic; few fine and medium roots; few very fine tubular pores; common thin clay films bridging sand grains.; medium acid; gradual smooth boundary.
B22bx 48 to 55 inches, yellowish brown (10YR 6/4) sandy loam, dark yellowish brown (10YR 4/4) moist; strong medium angular blocky structure; hard, friable, slightly sticky and very slightly plastic; few very fine tubular pores; common thin clay films in pores; clear smooth boundary.

IICx 55 to 60 inches, light gray (10YR 7/2) sandy loam, very dark grayish brown (2.5Y 3/2) moist; weak fine platy structure; hard, friable, slightly sticky and nonplastic; few very fine tubular pores; slightly acid.

Note: Peds in last two horizons have brittle feeling when crushed by hand.

Tahoe City Profile No. 2

Location: South of Tavern Shores, 75 feet east of State Highway 89, about 1500 feet south of the Truckee River bridge.

Vegetation: Jeffrey pine, Lodgepole pine, service berry, sweet clover

Classification: Coarse-loamy (or loamy skeletal), mixed, frigid Entic Xerumbrept

Soil Series: Not defined in Lake Tahoe Basin (Soil "A")

A11 0 to 8 inches, grayish brown (10YR 5/2) gravelly sandy loam, very dark grayish brown (10YR 3/2) moist; moderate very fine granular structure; soft, very friable, nonsticky and nonplastic; many very fine and fine, few medium roots; common very fine and fine interstitial pores; slightly acid; 25 percent gravel; gradual smooth boundary.

A12 8 to 14 inches, brown (10YR 5/3) gravelly sandy loam, very dark grayish brown (10YR 3/2) moist; weak fine granular structure; soft, very friable, nonsticky and nonplastic; many very fine to medium, few coarse roots; common very fine and fine interstitial pores; slightly acid; 30 percent gravel; clear smooth boundary.

C1 14 to 36 inches, pale brown (10YR 6/3) very gravelly sandy loam, dark brown (10YR 3/3) moist; massive; slightly hard, friable, nonsticky and nonplastic; many very fine to medium, few coarse roots; few very fine and fine interstitial pores; slightly acid 35 percent gravel; gradual smooth boundary.

C2 36 to 40 inches plus, pale brown (10YR 6/3) very gravelly sandy loam, dark brown

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(10YR 3/3) moist; massive, slightly hard, friable, nonsticky and nonplastic; few fine and medium roots; few very fine and fine interstitial pores; slightly acid; 35 percent gravel.

Tahoe City Soil Profile No. 3

Location: Fairway Drive - approximately 500 feet north of intersection with Hwy 89
Vegetation: Jeffrey pine, wyethia, bitterbrush, perennial grasses
Soil Classification: Fine- loamy, mixed , frigid, Ultic Haploxeraufs
Soil Series: Fugawee

A1 0 to 7 inches, brown (10YR 5/3) gravelly loam, very dark grayish brown (10YR 3/2) moist; moderate medium granular structure; soft, very friable, slightly sticky and slightly plastic; many very fine to medium roots; common very fine to coarse tubular pores; medium acid; 15 percent gravel, 10 percent cobblestones; clear smooth boundary.

B1 7 to 20 inches, brown (10 YR 5/3) gravelly loam, dark brown (10YR 3/3) moist; weak fine subangular blocky structure; slightly hard, friable, sticky and slightly plastic; many very fine to medium roots; common very fine and fine tubular pores medium acid; 15 percent gravels; 10 percent cobblestones; clear smooth boundary.

B2It 20 to 34 inches, yellowish brown (10YR 5/4) gravelly sandy clay loam (near loam), brown (10YR 4/3) moist; moderate medium angular blocky structure; hard, friable, sticky and plastic; many very fine and fine roots; moderate fine and medium, few coarse tubular pores; few thick and common thin clay films on ped faces; medium acid; 25 percent gravels; 5 percent cobblestones; gradual wavy boundary.

B2II 34 to 42 inches, variegated light yellowish brown (10YR 6/4) brownish yellow (10YR 6/6) and strong brown (7.5YR 5/8) gravelly clay loam, variegated yellowish brown (10YR 5/6) and strong brown (7.5YR 5/8) moist; massive; very hard, friable, sticky and plastic; few very fine roots; few very fine and fine tubular pores; few moderately thick clay films in pores; slightly acid; 35 percent gravels, 5 percent cobblestones; gradual wavy boundary.
Tahoe City – Lake Forest Plan Area Soils Investigation

IIcR 42 inches plus, firm white lacustrine sediments, can be dug with a spade.
Tahoe City Soil Profile No. 4

Location: Corner of ballfield, and golf course off Grove Street
Vegetation: None – lot used for vehicle traffic and parking
Soil Classification: Fine, montmorillonitic, nonacid, frigid, Fluventic Humaquepts
Soil Series: Not defined in the Lake Tahoe Basin (Soil "B")

Note: There is 18 inches of compacted fill over the original surface.

0 to 18 inches, fill consisting of sand to loam to sandy clay loam material, dark grayish brown in color.

A1 18 to 25 inches, very dark gray (N3/0) clay, black (10YR 2.5/1) moist; very coarse prismatic structure; hard, friable, sticky and plastic; no roots; mildly alkaline; gradual smooth boundary.

C1 25 to 34 inches, light gray (N 7/0) silty clay, black (N 2/0) and dark gray (N 4/0) moist; very coarse prismatic structure; very hard, firm, sticky and plastic; no roots; mildly alkaline; clear smooth boundary.

C2 34 inches plus, light yellowish brown (2.5Y 6/4) and light gray (N 7/0) clay, black (10YR 2/0) and grayish brown (2.5Y 5/2) moist; weak very coarse prismatic breaking to moderate medium angular blocky structure; very hard, firm, sticky and plastic; mildly alkaline.

Tahoe City Soil Profile No. 5

Location: 50 feet northwest of the Gallery – 15 feet from escarpment to Tahoe City beach
Vegetation: Jeffrey pine, wyethia, perennial grasses
Soil Classification: Fine-loamy, mixed frigid Ultic Haploxeralfs
Soil Series: Nubu moderately fine subsoil variant

A1 0 to 12 inches, dark brown (7.5YR 4/4) sandy loam, dark brown (7.5YR 3/2) moist; moderate medium granular structure; soft, friable, nonsticky and nonplastic; common fine and medium, few coarse roots; common very fine and fine interstitial pores; slightly acid; clear smooth boundary.

DAVIS² Consulting Earth Scientists P.O. Box 724 Georgetown, CA 95634 (916) 333-1405
B1  12 to 24 inches, dark brown (7.5YR 4/4) sandy loam (near loam), dark brown (7.5YR 3/3) moist; moderate fine subangular blocky structure; slightly hard, friable, slightly sticky and nonplastic; common fine and medium and few coarse roots; common very fine and fine tubular and interstitial pores; slightly acid; gradual smooth boundary.

B21t  24 at 36 inches, dark brown (7.5YR 4/4) gravelly loam, dark brown (7.5YR 3/4) moist; weak medium subangular blocky structure; hard, friable, sticky and slightly plastic; common fine, medium, and few coarse roots; few very fine tubular pores; few thin clay films on ped faces; slightly acid; 20 percent gravel; gradual smooth boundary.

B22t  36 to 48 inches, variegated dark brown (7.5YR 4/4) and strong brown (7.5YR 5/6) gravelly clay loam, moist; moderate medium subangular blocky structure; very hard, friable, sticky and plastic; few fine roots; few very fine tubular pores; common thin clay films on ped faces and in pores; slightly acid; 15 percent gravels; clear smooth boundary.

IIC1  48 yo 58 inches, olive brown (2.5Y 4/4) clay loam with yellowish red (5YR 4/6) iron mottles, moist; massive; hard, slightly firm, stickky and plastic; very few very fine tubular pores; slightly acid; abrupt smooth boundary.

IIC2  58 inches, cemented lacustrine sediments.

Tahoe City Soil Profile No. 6

Location: Payless lot near Shell station
Vegetation: Very sparse growth of weeds
Soil Classification: Fine, montmorillonitic, nonacid, frigid, Fluventic Humaquepts
Soil Series: Not defined in the Lake Tahoe Basin ("Soil B")

0 to 15 inches, very compacted gravelly engineered fill imported to site

A1  15 to 32 inches, dark gray (10YR 4/1) silty caly, black (10YR 2.5/1) moist; strong very coarse prismatic structure; extremely hard, very firm, very sticky and very plastic; pressure faces; mildly alkaline; abrupt smooth boundary.

DAVIS² Consulting Earth Scientists P.O. Box 724 Georgetown, CA 95634 (916) 333-1405
C1  32 to 46 inches, grayish brown (10YR 5/2) silty clay, very dark grayish brown
    (10YR 3/2) and black (10YR 2.5/1) moist; strong very coarse prismatic
    structure; extremely hard, very firm, very sticky and very plastic; pressure
    faces; mildly alkaline; abrupt smooth boundary.

Ab  46 to 55 inches, dark gray (10YR 4/1) and brown (10YR 5/3) silty clay, black (n
    2/0) and very dark grayish brown (2.5Y 3/2) moist; structure, consistence as
    above; pressure faces; mildly alkaline; gradual smooth boundary.

Cg  55 to 60 inches, light gray (5Y 7/2) and pale olive (5Y 6/4) silty clay, olive gray (5Y
    4/2) and olive (5Y 5/6) moist; weak medium prismatic structure; extremely
    hard, firm, very sticky and very plastic; mildly alkaline.

Tahoe City Soil Profile No. 7

Location: Quarry, near the west fence
Vegetation: None
Classification: Engineered fill materials (nonsoil)
Soil Series: None

C1  0 to 7 inches, pale yellow (2.5Y 7/4) very gravelly sand to sandy loam, olive brown
    (2.5Y 4/4) moist; strong coarse platy structure; very hard, very firm,
    nonsticky and nonplastic; abrupt, smooth boundary.

C2  7 to 46 inches, very dark grayish brown (2.5Y 3/2) very gravelly sandy loam to sandy
    clay loam, moist; massive; very hard, very firm; slightly sticky and slightly
    plastic; 15 percent cobblestones and 25 percent gravel; abrupt, smooth
    boundary.

IIc  46 to 54 inches, light olive brown ((2.5Y 5/4) silt, moist; massive; slightly hard,
    friable, slightly sticky and slightly plastic; bedded lacustrine sediments.
References:

1. Andregg Inc. 1964, 65. Aerial photography, black & white, Tahoe City area.


3. Cartwright Aerial Surveys Inc. 1962. Aerial photography, black & white, 1: 20,000 scale, Tahoe City and Lake Forest area.


10. ———. 1971. Map sheet C-7 (Tahoe City), scale 1" = 400'.


13. ———. 1967. Aerial photo soil map sheets, black & white contact prints.

14. United States Department of Agriculture, Forest Service. 1983. Aerial photography, color contact prints, Tahoe City and Lake Forest area, scale 1" = 100'.

15. ———. 1939. Aerial photography, black & white contact prints, Tahoe City and Lake Forest Area, scale 1: 20,000.

DAVIS Consulting Earth Scientists P.O. Box 724 Georgetown, CA 95634 (916) 333-1405
May 31, 1988

To: Advisory Planning Commission

From: TRPA Staff

Subject: Amendments to Appendix A of Chapter 4 Requested by the City of South Lake Tahoe

The following amendments are being proposed to Chapter 4 to allow TRPA staff to take action on projects requiring transfer of existing development that currently must be acted upon by the Governing Board. These amendments are in response to the City of South Lake Tahoe comments at the April Governing Board Public Hearing for consideration of previous changes to Appendix A of Chapter 4.

Problem Identification: Appendix A to Chapter 4 identifies categories of projects and matters that the Governing Board must review and take final action on. The Executive Director may review and take final action on projects and matters not listed in Appendix A.

The City of South Lake Tahoe has a program to clean up existing substandard development. One of the tools which helps facilitate this program is the ability to transfer or relocate existing development to different parcels.

To aid their program, the City requested that the demolition and banking of existing development be approved at staff level and that the transfers of existing development be approvable at staff level. The first request is easy since the rules now permit staff approval of banking. The second request will require an amendment of Appendix A since all transfers of existing development require Governing Board review.

Criteria: The criteria for placing a category on Appendix A is not listed in Chapter 4, however in drafting the original list staff utilized the following criteria:
- The projects required special findings be made for project approval in addition to those required by Chapter 6. Generally these findings are not technical and required a level of discretion warranting Governing Board review.
Memorandum to Advisory Planning Commission
Amendments to Appendix A of Chapter 4 Requested
by the City of South Lake Tahoe
Page 2

- Projects had the potential to affect persons other than the applicant and warranted a public hearing.

- The projects were considered to be major projects or of such a sensitive nature they required Governing Board review.

Analysis: The following is a brief analysis why staff is recommending the deletion of number I. 27 (Transfer of existing development) from Appendix A.

Transfers of existing development was originally put on the list because the transfer approval requires the application of requirements as set forth in Subparagraph 34.4.B. There is a judgement required as to the appropriateness of removing the existing development.

Chapter 34 also requires all transfers of existing development to be in conjunction with the approval of the new project resulting from the transfer in order to evaluate the transfer.

Appendix A also sets forth a list which new projects must be reviewed by the Governing Board. Generally only single family houses and other minor projects are exempt from Governing Board review. Therefore, the removal of the transfer review requirement will only permit staff to review new single family houses and other minor projects resulting from the transfer.

Thus, this amendment will reduce the review time for the eligible projects and will require staff to make judgements in regards to relocation of minor amounts of development.

The most significant area of judgement where there is no current TRPA policy or standard is in regards to current TRPA regulation of demolishing affordable housing. The long-term effect of transfers may be a reduction in affordable housing.

In light of the City's approach of considering the impacts on affordable housing and generally only allowing the nonconforming units to be transferred, it seems this issue is best handled by local government whose approval of the transfer is also required.

Environmental Documentation: Staff considers these amendments to be technical and administrative in nature and do have a significant environmental effect.

Recommend Amendments: See Attachment 1 for the staff recommended amendments to Appendix A, Chapter 4.
CHAPTER 4
APPENDIX A

PROJECTS AND MATTERS TO BE REVIEWED BY GOVERNING BOARD

I. GENERAL

1. Project for which an EIS was prepared and EIS certification (Chapter 5)
2. Plan amendments, ordinances and resolutions
3. Special uses, including changes, expansions or intensifications of existing uses (Chapter 18)
4. Community, including preliminary plan or work program, redevelopment, master or special plan
5. Problem assessments and remedial action plans (Chapter 9)
6. Land capability or man-modified challenge (Chapters 20 and 53)
7. Additional coverage in excess of 100 square feet in land capability districts 1-3, except for relocation of less than 500 square feet of excess land coverage in accordance with Subsection 20.5.C and the creation of less than 500 square feet of additional land coverage pursuant to Subsection 20.4.A(4)
8. Increase in supply of land coverage (Chapter 20)
9. Memoranda of understanding
10. New logging roads, except for temporary skid trails (71.3.D)
11. Substantial harvest or tree removal plans (71.2.B and 71.3.I)
12. Tree removal for scenic views (71.4.I)
13. New or expanded livestock grazing (Chapter 73)
14. Modifications to SEZs, excluding modifications resulting in less than 500 square feet of additional land coverage in an SEZ for stream crossings for residential projects in accordance with Subsection 20.4.B(1) and erosion control and other environmentally oriented projects and facilities in accordance with Subsection 20.4.B(4)
15. Stream diversions
16. Holding tanks and other no-discharge sewage systems (except temporary) (Chapter 81)
17. Spill contingency plans (Chapter 81)
18. Pesticide, salts and abrasives, and long-term fertilizer use (Chapter 81)
19. Offsite WQ and AQ mitigation in lieu of mitigation fees (Chapters 82 & 93)
20. Mitigation fund expenditures and projects (Chapters 82 and 93)
21. Permit revocation (Chapter 8)
22. Security forfeitures (Chapter 8)
23. Designated historic resource determinations (Chapter 29)
24. Additions, repairs, maintenance, reconstruction, or demolition of historic resources (Chapter 29)
25. List of approved multi-use commercial centers (Chapter 93)

ATTACHMENT I
26. Additional height for structures (except for single family home; cross-slope and pitch) (Chapter 22)

27. Transfer of existing development (Chapter 34)

27. Projects with multi-residential bonus units (Chapter 35)

28. Projects requiring traffic analyses (Chapter 93)

29. Allocation systems (Chapter 33)

30. Recreation and Public Service 5-Year Lists (Chapter 33)

31. New or modified stationary sources (Chapter 91)

32. Establishing the level defining the top ranked parcels pursuant to Subsection 37.8.B, lowering the line defining the top ranked parcels pursuant to Subsection 37.8.C and determining allowable base land coverage pursuant to Subsection 37.11.A

II. RESIDENTIAL PROJECTS (new, expansion or transfer) INVOLVING:

1. Affordable or employee housing
2. Mobile home developments
3. Multi-residential except for secondary residences

III. TOURIST ACCOMMODATION PROJECTS (new or transfer) INVOLVING:

1. Allocation of units
2. Bed and breakfast
3. Transfer of units

IV. COMMERCIAL PROJECTS (new or transfer) INVOLVING:

1. Allocations of gross floor area
2. Transfer of floor area

V. PUBLIC SERVICE PROJECTS (new or transfer) INVOLVING:

1. New facilities (1,000 ft. floor area or land coverage)
2. Transfers of coverage (over 1,000 sq. ft.) for linear public facilities and hwys., streets and roads
3. Airport expansion

VI. RECREATION PROJECT (new or transfer) INVOLVING:

1. New facilities (1,000 ft. floor area or land coverage)
2. PAOTs allocation

VII. RESOURCE MANAGEMENT PROJECTS INVOLVING

1. Substantial tree removal
VIII. SHOREZONE PROJECTS INVOLVING

1. Expansion of existing structures except conforming structures (Chapter 52)
2. New structures, including mooring buoy fields, boat ramps, breakwaters and jetties, fences below highwater, floating docks and platforms, piers, shoreline protective structures, and water intake lines
3. Tour boat operations (new or expansion)
4. Salvage operations (new or expansion)
5. Waterborne transit (new or expansion)
6. Seaplane operation (new or expansion)
7. Marinas (new or expansion)
8. Changes in use except allowed uses
9. Recognition of multiple-use facilities (Chapter 54)
MEMORANDUM

June 7, 1988

To: The Advisory Planning Commission

From: The Staff

Subject: Buehler, Reclassification of Land Capability

This item is to be continued to the July APC meeting.
MEMORANDUM

June 6, 1988

To: TRPA Advisory Planning Commission

From: Agency Staff

Subject: Discussion of Proposed Revisions to Chapter 91

Chapter 91 of the Code of Ordinances (Air Quality Control) is intended to implement the Air Quality Subelement, Land Use Element, of the Goals and Policies, and the 1982 Air Quality Plan, for the purpose of attaining and maintaining applicable state and federal air quality standards and TRPA thresholds. Chapter 91 was adopted on May 27, 1987.

The chapter is applicable to direct sources of air pollution in the Lake Tahoe Region, including certain motor vehicles registered in the Region, combustion heaters installed in the Region, open burning, stationary sources of air pollution, and idling combustion engines.

Chapter 91 contains language directing TRPA to amend the chapter in response to changing federal standards, and in response to new information. Further, TRPA staff has received many comments regarding Section 91.5 (Stationary Source Review) and Section 91.6 (Idling Restrictions). Therefore, in March, TRPA staff initiated research regarding proposed Code revisions; and the Air Quality & Transportation subcommittee of the APC discussed proposed revisions in April and May of this year.

Discussions at these meetings have focused on Section 91.3 (Combustion Appliances), Section 91.5 (Stationary Source Review), and Section 91.6 (Idling Restrictions). In addition, Section 91.2 (Vehicle Inspection and Maintenance Program) was briefly discussed at the April meeting.

On the following pages are synopses of the three main topics of discussion. The purpose of this agenda item is to discuss and evaluate the suggestions from the Air Quality and Transportation Subcommittee. Following discussion, staff will prepare a set of recommendations for further consideration by the subcommittee and APC.

Should there be any questions regarding this agenda item, please contact Curtis Jordan at (702) 588-4547.

CJ:rdh
6/6/88
I. COMBUSTION APPLIANCES

The Air Quality Subelement of the 1986 Regional Plan for the Lake Tahoe Basin contains the following relevant goals and policies:

GOAL #2 REDUCE NITRATE DEPOSITION BY TWENTY PERCENT

4. RESTRICT THE TYPES OF SPACE AND HOT WATER HEATERS USED IN THE BASIN.

GOAL #4 ACHIEVE AND MAINTAIN THE VISIBILITY STANDARDS

1. RESTRICT THE TYPES OF STOVES AND FIREPLACE INSERTS USED IN THE BASIN.

In addition, a Thresholds Standard for Subregional Visibility states:

Reduce wood smoke emissions by 15 percent of the 1981 base values through technology, management practices, and educational programs.

Subsection 91.3.A (Gas Heaters) of the Code attempts to duplicate provisions and certification procedures in place in the South Coast Air Quality Management District. However, following review of SCAQMD rules, it is clear that there are several minor inconsistencies in the adopted Code. Further, the current subsection could be clearer. Finally, it is not clear how the existing Code handles decorative gas appliances.

Subsection 91.3.B (Wood Heaters) contains provisions for wood heaters including fireplaces, and incorporates certification procedures in place in Colorado and Oregon. However, there are two subsections where TRPA staff is directed to amend the Code over time in response to new federal standards (Emission Standards) and following further study (Fireplaces). Further, some elements of the current subsection could be clearer.

At the subcommittee meetings, discussion was focused on clarifying Subsection 91.3.A, coal as a fuel source, wood heater limitations, and fireplaces.

Clarifications to Subsection 91.3.A. Currently, the Code language is not clear regarding what other Code subsections may apply to appliances exempt from §91.3.A. Further, those present at the subcommittee meetings felt that the existing text on recreational vehicles may not be necessary.
Memorandum to Advisory Planning Commission
Chapter 91 Revisions
Page 3

Coal as a Fuel Source. Currently, Subsection 91.3.B states, "Coal shall not be used as a fuel source." A number of meetings have been held on the possibility of allowing certain coal-based products to be used. However, the subcommittee and the APC chose to not relax the prohibition.

Those present at the subcommittee meeting now recommend that the coal prohibition be placed in a separate subsection from Wood Heaters.

Wood Heater Limitations. Currently, Subparagraph 91.3.B(2) states:

Limitations: Wood heaters shall be sized appropriately for the space they are designed to serve. Wood heaters shall not be installed in hotels, motels, and timeshare units of hotel/motel design, except in the common areas. Replacements of existing wood heaters shall be with units meeting the emission standards...

TRPA staff, and ultimately local planning staffs, do not have the resources or time to calculate the heating demand of a house in order to determine if the wood heaters are "sized appropriately."

TRPA staff proposed to those present at the subcommittee meeting that they select a finite limit on the number of wood heaters that may be installed, based on average heating demand.

After discussion, those present now recommend that each use would ordinarily be limited to one wood heater, with an option to be placed under a "bubble," limiting the total emissions from the use to the maximum allowed by any one wood heater.

Fireplaces. Currently, Subparagraph 91.3.B(4) states:

Fireplaces: TRPA shall evaluate the performance of fireplaces with regard to the air quality and visibility provisions of the Goals and Policies and this Code, and amend this Chapter as appropriate.

This language, in conjunction with other language in the Code, effectively bans new fireplaces. Those present at the subcommittee meeting expressed diverse opinions on whether or not the ban should be lifted.

At the direction of those present, TRPA staff investigated fireplace emissions, focusing on particulate emissions.
Memorandum to Advisory Planning Commission
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Page 4

This investigation estimates that a fireplace emits 241 percent more total suspended particulates per kilogram of fuel than an average certified non-catalytic wood stove during test conditions. Further, a fireplace would need to consume 47 percent of the fuel as an average certified non-catalytic wood stove to be certified under current rules.

II. STATIONARY SOURCE REVIEW

The Air Quality Subelement of the 1986 Regional Plan for the Lake Tahoe Basin contains the following relevant goals and policies:

GOAL #2

REDUCE NITRATE DEPOSITION BY TWENTY PERCENT

9. REDUCE ATMOSPHERIC LOADING BY CONTROLLING STATIONARY SOURCES.

Technology is available that will substantially reduce the amount of emissions from existing stationary sources of air pollution in some instances. The Agency should encourage the installation of these pollution control devices where feasible.

GOAL #6

DEVELOP AND IMPLEMENT A MITIGATION PROGRAM FOR PROJECTS THAT IMPACT AIR QUALITY

1. RESTRICT STATIONARY SOURCES OF AIR POLLUTION THAT CAN LOCATE IN THE BASIN.

The implementing ordinances must identify what stationary sources of air pollution can locate in the Basin and define what constitutes a significant environmental impact from stationary sources.

Further, there are several provisions in the Regional Plan which address sulfur, carbon monoxide, and visibility degradation.

The existing Code contains criteria for environmental assessment, offsets, and for prohibition. However, the process appears to be awkward and does not encourage existing sources to install new technology as specified above.

In addition, the existing Code criteria for assessment, offsets, and prohibition has been questioned by private interests and TRPA staff.

Those present at the subcommittee meetings discussed the existing process, how existing stationary sources should be treated, and existing and proposed assessment and maximum allowable emission levels.
Process. The existing process requires Best Available Control Technology for all new sources before further assessment, and requires an EIS in many situations. However, many stationary sources may only marginally exceed the assessment criteria, and an EIS may not always be necessary. Further, local jurisdictions in California may be willing to assume some of the review responsibilities if TRPA's process were to conform to their process.

Existing Stationary Sources. As currently written, an existing large stationary source is indirectly encouraged to keep the existing technology and not retrofit. All modified stationary sources must comply with the new prohibition level even if there would be a net improvement in emissions with a lesser modification.

The consensus of those present at the subcommittee meeting was that existing stationary sources should be permitted to perform modifications without dropping all the way back to the current new source standards. There was not a clear consensus regarding whether a modification to an existing source should show a net improvement, status quo emissions, or an increase from a baseline.

Assessment and Maximum Emission Levels. The existing assessment and prohibition levels were derived from a limited emission inventory, and in consideration of the Regional Plan language addressing what kinds of stationary sources can locate in the Basin. However, the relationship between assessment levels and prohibition levels is quite inconsistent, as is the relationship between TRPA maximum allowable emission levels and local maximum emission levels.

Those present at the subcommittee meeting expressed a range of views on maximum allowable emission levels from maintaining the existing levels, in all cases, to relaxing the TRPA maximum allowable emission levels to local standards.

At the May meeting, it became apparent that Section 91.5 could be significantly expanded in order to provide clarity and consistency. Those present discussed breaking Section 91.5 out into a separate chapter.

III. IDLING RESTRICTIONS

The 1982 Air Quality Plan for the Lake Tahoe Basin identifies idling restrictions as a potential control strategy to attain the National Ambient Air Quality Standard for carbon monoxide, following further review. In 1986 and 1987, TRPA staff determined that idling restrictions would be an effective control measure. Further, the Clean Air Act (as amended) states that a program to control extended vehicle idling is a Reasonably Available Control Technology.
Currently, Subsection 91.6.A states:

Duration: No person shall cause a combustion engine in a parked auto, truck, bus, or boat to idle for more than 30 consecutive minutes in the following Plan Areas: 070A, 080, 089A, 089B, 090, 091, and 092. The following projects and activities are not subject to this limitation:

(1) Activities specifically permitted, after environmental impact analysis, to idle longer than 30 minutes.
(2) Emergency vehicles, snow plows, or combustion engines required in the case of emergencies or repairs.
(3) Vehicles in transit on public rights of way.

Nevada Division of Environmental Protection staff and members of the public have requested that TRPA consider shortening the time limit from the 30 minute period above.

This amendment was discussed by the subcommittee. Those present agreed that 30 minutes may be too long in many situations. Further, those present also agreed that it was important to begin enforcing the existing provisions more aggressively.
MEMORANDUM

June 6, 1988

To: The Advisory Planning Commission

From: The Staff

Subject: Status Report on the Scenic Resource Management Package

The Scenic Advisory Committee is completing its work on the Scenic Resources Management Package. The Committee's final meeting is scheduled for Tuesday, June 14, 1988. Following the meeting, staff will prepare a draft of the package for public release and circulation. The package will consist of:

1. Design Review Guidelines;
2. Code of Ordinances Chapter 26 (Signs);
3. Code of Ordinances Chapter 30 amendments (adding Regional Scenic Highway Corridors); and
4. Scenic Quality Improvement Program.

The Committee has addressed several important issues in the development of the package which staff will be seeking review and approval of from the APC and the Governing Board. The issues include:

- Adoption of updated scenic quality threshold ratings;
- Recognition of three different visual environments: urban, rural, and transitional;
- Application of the visual environment types to scenic highway development standards, design guidelines, and sign standards;
- Use of a Visual Magnitude/Color Contrast rating system to help blend new development along rural scenic highway corridors;

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AS:jf

AGENDA ITEM V E.
Memo to the APC
Status of Scenic Package
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- Use of an amortization schedule for the removal of existing signs which do not conform to the provisions of the proposed ordinance;

- Creation of a regional non-profit entity to take a lead role in coordinating scenic restoration and improvement. This entity could function as a public/private partnership and could be affiliated with a similar national scenic preservation organization; and

- Recommendation of a threshold attainment schedule by jurisdiction for those travel units which currently do not meet the adopted thresholds.

Environmental Documentation

An Environmental Assessment (EA) of the scenic package is being prepared by TRPA consultant, Wayne Iverson. This will be brought to the APC, along with the scenic package, for review and recommendation. If, during the review process it appears that significant adverse environmental impacts will occur as a result of implementing the scenic package, then a full Environmental Impact Statement will be prepared and circulated.

The purpose of this agenda item is informational only. Staff intends to bring individual pieces of the package to the APC for review and approval beginning next month. Please contact Andrew Strain at (702) 588-4547 if you have any questions or comments regarding this item.

6/6/88

AGENDA ITEM V B.