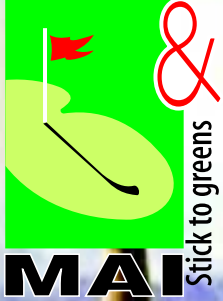


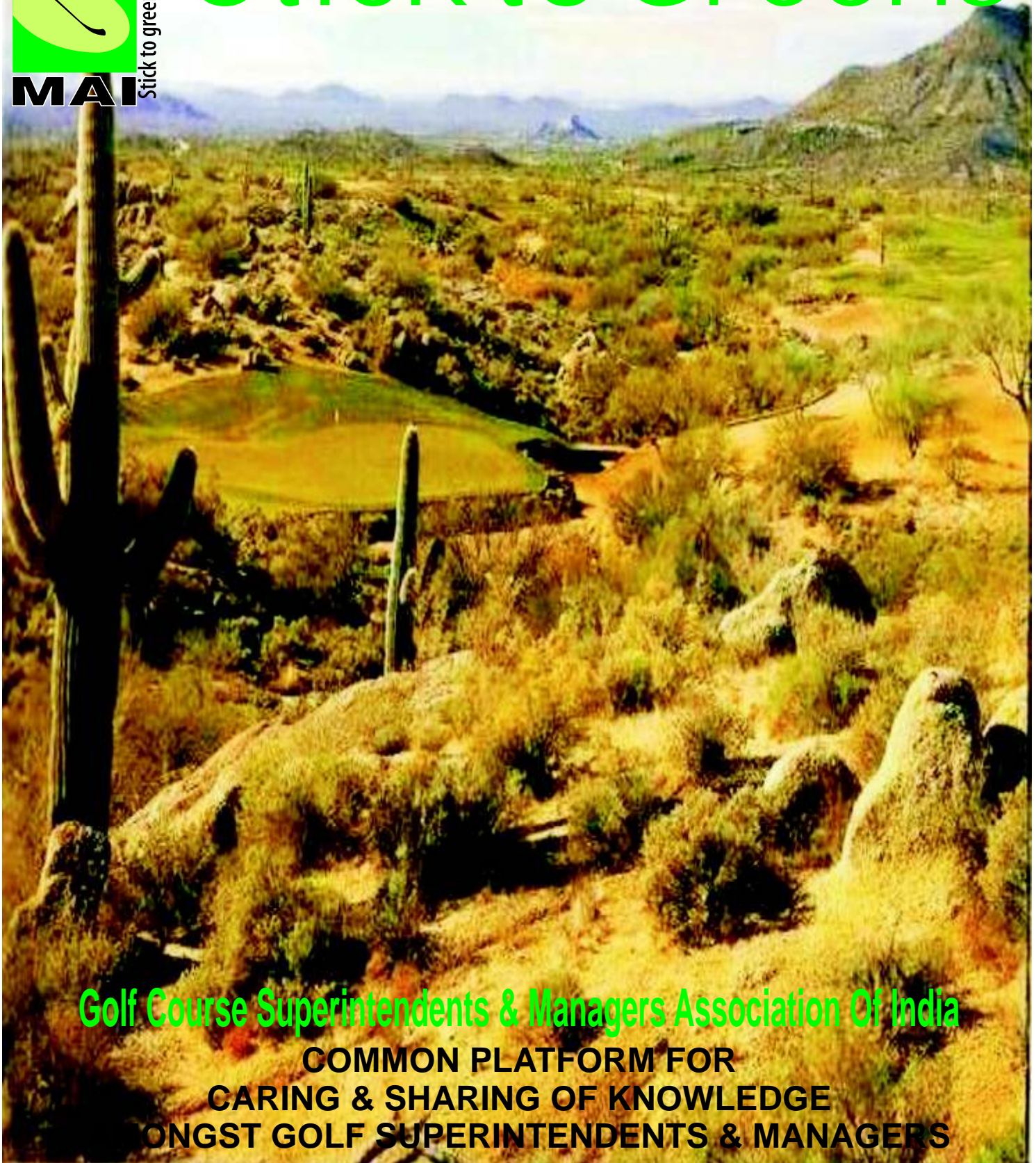
GCS



MAI

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Vol 15

Stick to Greens



Golf Course Superintendents & Managers Association Of India

**COMMON PLATFORM FOR
CARING & SHARING OF KNOWLEDGE
AMONGST GOLF SUPERINTENDENTS & MANAGERS**

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FROM THE CHIEF EDITOR'S DESK



(GCS&MAI). More than 40 stalls representing all segments of golf industry were on display to suggest that golf was truly entrenched in India. It was indeed an index of Country's growing economy.

The biggest event in Asia that drew the attention of all those involved with the administration, management and maintenance of the golf courses was organized on 25th to 27th June 2010 at the Hotel Ashok, New Delhi. The credit must go to the Mr Anil Dev who brought Asian Golf Industry Show 2010 to a forefront and gave a treatment that it deserved and thus drew the attention of all those who mattered in this field. This annual event would not have been possible without the active sponsorship and co-options of various agencies viz J&K Tourism, Panasonic, Asian Golf Course Owners Association, Indian Golf Union, Professional Golfers Association of India, and more importantly Golf Course Superintendents & Managers Association of India

Most educative part of the show was the conduct of two days Seminar for the Green Keepers who had come from the every nook and corner of the Sub Continent. It was organized under the aegis of Golf Course Superintendents & Managers Association of India (GCS&MAI) on 26th and 27th June 2010 at Hotel Ashok, New Delhi which was well represented not only by the cross section of the golf industry but also by those who are charged with the responsibility of making and maintaining golf courses for the pleasure of the golfers. The Seminar opened with the inaugural address by GCS&MAI President, Col. S K Bhattacharya, who unfolded the manner in which the seminar will proceed. The first session was conducted by Mr James Sua (CGCS), Golf Manager, National Service Resort & Country Club (Safra Golf Club & Kranji Sanctuary Golf Club) & Head of AGCOA Superintendents Chapter who acquainted all present with, "Golf Course Maintenance Practices", Miss Nuzhat Gul, Turf Manager, Royal Springs Golf Course, Srinagar spoke on "Grooming Greens", while Col. Ravi Rana, Vice President, GCSMAI shared his rich experience on "Cost Effective Maintenance of Golf Courses". Mr. Mohan Subramaniam, Country Head, Rain Bird spoke on "Intelligent use of water on Golf Courses".

The next day of the Seminar saw Mr. Howard Swan, Principal, Swan Design (UK) presenting his views on "The Need For Sustainability in Golf & Golf Development". Mr James Sua (CGCS) reappeared to present a "A Case Study of Safra Golf Club Singapore". Mr Steve Wilson, Business Development Manager of Bernhard & Co presented his views on "Selection & Maintenance of Golf Equipment", while Mr. Vijit Nandrajog, Director, Golf Design India presented his views on "Golf Course Upgrading & Renovation".

In the end the house was opened for questions and answers, wherein all those grey areas which remained a matter of concern for the golf course superintendents were discussed, deliberated and clarified by the expert panelists in viz Col S K Bhattacharya, President GCS&MAI, Col Ravi Rana, Vice President GCS&MAI and others who had come from outside the Country and had shared the podium honours.

The Seminar was a grand success indeed we had sprinkling of eminent guests in Dr Farooq Abdullah and alongwith the Minister of J&K State charged with the responsibility of promoting tourism alongwith the golf courses in salubrious Kashmir. It will remain our endeavour to work symbiotically with all those agencies associated with the construction and maintenance of golf courses in and around India and more importantly with Mr Anil Dev's Sports & Leisure Worldwide (SLW) in years to come towards common aim of promoting this great game of golf and golf courses. In this issue of "Stick to Greens" we have endeavoured to acquaint you with "Serious & Trying Time Ahead For Golf Courses" an important subject that has been succinctly covered by our President Col S K Bhattacharya. Dr M Hussain Shah of the J&K region has attempted to describe in two parts the nuances of "Construction of Golf Course" while Mr Pradeep Joshi has pen down his views on fashionable subject like "Overseeding" so read on.....and do email your queries and suggestions.

Wishing you always happy golfing through out !!

Col S K Sharma

GCSMAI NEWS

Dear Care Takers of Golf Courses,

In Jan 2003 the GCSMAI platform was created with an objective of caring and sharing the art and science of green-keeping profession. During the Asian Golf Industry Show 2010 held at Ashoka Hotel, 25th to 27th June 2010, GCSMAI received several enquires with regard to the conduct of **Certification Course** in the **Green Keeping & Golf Course Construction/ Up-Gradation/Refurbishing of the Golf Courses**.

With this background GCSMAI intends to create a data bank of the people engaged in taking care of the Golf canvas through out the Country. You are requested to send details of your green keeping staff as per the format given below :

Level - I

Secretary's / Golf Managers (Name, Qualification & Experience)

Level - II

Green Superintendent/ Head Greenkeeper (Name, Qualification and a brief on Experience)
Assistant Green Keeper (Name, Qualification & Experience)

Level - III

Support Staff (Name & Qualification)

- a. Workshop In-charge
- b. Irrigation In-charge/ Foreman
- c. Horticulturists

Level - IV

Key Supervisory Staff (Name, Qualification & their Experience)

Please send your information to **Golf Course Superintendents & Managers Association of India**, C/O Silverglades Golf Development Co.Pvt Ltd, Sceond Floor, The Peach Tree, Sushant Lok Phase - I, Gurgaon - 122002 or email us at **admin@gcsmai.com**

Your suggestion & support will help us to launch the inaugural session of the Certification Course at the earliest. Interested parties/individuals may please look for further details to be published through GCS&MAI Newsletter in subsequent issues.

Happy golfing always !!



Wg Cdr A K Singh
Secretary General



SERIOUS & TRYING TIME AHEAD FOR GOLF COURSES



Golf course developers boldly declare their courses as a lung area in the vicinity of intensive urbanization and concrete jungles. This claim though true but considering the increasing scarcity of land and more so due to fast depleting water table it is

critical that all right thinking people try to change their mind set and start saving these two precious commodity for the welfare of mankind and all other living Organism, as also to keep or shall we say preserve water for next generation. An effort is being made by the writer to high light and share with readers' relevant issues that might open the window of our thought process, towards our obligation to the world that has given us our today.

Let us first consider various issues related with land

(a) Residential/Agriculture. India is an agriculture dominated Country. It is thus imperative to spare agricultural land due to ever increasing demand for agricultural produce for increasing population is rather critical. We may therefore need to be conscious and avoid conversion of agricultural land for residential as well as for golf facilities which require large chunk of open area.

It may be worthwhile to look for land where due to lack of soil fertility or any other agronomic deficiency crop cannot be grown. Water quality due to brackishness and or high ph level, viable vegetative growth may not be possible. These areas may be considered for real estate development. Poor water quality may thus dissuade drawing of underground water which is generally not regulated. Requirement of water for domestic use at real estates may be through municipal supply. This must be regulated through centrally controlled ground water supply department of the Government.

(b) Land for Golf Courses Golf courses require large open area. Developers go all out to look for land close to urbanized areas. Generally agricultural lands in the vicinity become the target. Can we change our concept ? We have

innumerable cases in the world where old mines, swamps, ravines, waste land, abandoned brick kilns abandoned mines, Arid land, sandy waste etc are remaining unused due to its profile and elevation configuration, including development cost. It is well known that these areas can be transformed into beautifully designed golf courses. Such examples are plenty all over the world.

Having said so, let us now share with the readers in regards to use of water in the golf courses. We are well aware that grass requires large quantity of water through intensive irrigation for upkeep and maintenance. Water loss due to open area dispersion is also caused through evaporation, percolation etc. Golfers' desire well manicured turf area in the Golf courses. In the event of having wall to wall carpeting of golf courses, grassed areas are huge and calls for high demand of already scarce resources of ground water which is fast depleting and water table going deeper. This leads to use of more power, additional manpower and use of more fertilizers. Use of excess in Organic fertilizers, chemicals cause pollution of ground water and long term effect on human health and soil fertility. Many chemical fertilizers and pesticides have carcinogenic components, like nitrate, lead and many harmful pollutants, all these adds to the misery of human being and animals, thus affecting flora and fauna of the environment. Polluted water when drawn for human consumption causes gastro intestinal disease that is becoming very common these days.

We may therefore have to address these nagging issues and find out solutions. First action need to be taken is to have a changed mind set of having wall to wall carpeting of Golf Courses with Turf Grass. Let us see couple of cases like Scottsdale in Arizona, Links courses, with more natural profile with rocks, gorges, wild growth of vegetation, hard species that require very little water et al.

What we are suggesting is reducing turf areas drastically. Keep the Tees, landing areas and greens with well maintained grass. Sensible and imaginative use of native and wild variety of vegetation in non playing areas. Use of terrain configuration, use of rocks, boulders, drought



tolerant species of tall and wild grass etc can provide dramatic effect and aesthetics of the overall landscape of a Golf Course. Above photograph is a classic example of such golf facility. Thus we shall be able to reduce requirement of water for irrigation drastically and effect complimentary reduction of a Power, Fertilizer, Labour, Machinery and many other co-lateral avoidable expenditure. Commercially such options make golf courses viable.

Time is not very far when availability & cost of water shall be prohibitive as some alarmists go to the extent of saying that the future war will be on water !! Be that as It may, it may not be commercially viable to run golf courses as they are being run these days and hence this suggestion.

All these issues today may appear as of undue concern to most of us, but in actual fact, the earlier we wake up better it is going to be for our future. Global warming is already becoming an issue the world over and it's effects are showing up right from the Arctic region's melting snow, swelling rivers, frequent flood, extensive soil erosion and many more. We need to take all these aspects in our future plans for sustainable development of the golf courses.

Can we try to contribute for future by just changing our mind set, I think we can & we should for every ones good towards a sustainable development.

HAPPY GOLFING !!

Col. (Retd.) S.K. Bhattacharya

The writer is a pioneer in building world class Golf Courses in India. He is the Director of Silverglades Golf Development Company. The writer can be contacted on email: admin@gcsmai.com

Disclaimer : This article is solely the concept and opinion of the writer. GCS&MAI do not desire to deal with any query or correspondence in



India is a region where warm season turf grass is required to be used on almost all golf courses throughout the country barring some areas in the hilly regions. Essentially towards the northern region of India the growth of grass

is affected during the winter season when the Bermuda grass becomes dormant, though for a short spell. It is therefore a general tendency or keenness of over-seeding winter grasses during this period. I am trying to share with the readers as to what are the possible implications of over-seeding in this part of our Country.

Over-seeding your turf during the peak winter months is an expensive tool of providing instant green turf for winter play. It is more of an art than being a just science. The cost of seeds only can cost upto Rs. 14 to Rs. 17/- per sq mtr.

Why winter overseeding ?

The biggest irony of Indian Sports, especially Golf is that the maximum playability is demanded during the season when the Bermuda grass is dormant. Winter over-seeding has come up as a solution to reduce the players agony by providing better playing conditions and aesthetics as also 'green view' for media coverage during international events. Winter overseeding offers however following advantages:

- (a) Better playability during dormant season of Bermuda grass
- (b) Germination of seeds with in 7 days even during the lowest temperature regime.
- (c) Lush green cover in the shortest span of 18-21 days.



Picture 1.1



Picture 1.2

- (d) Lush cover even in the shaded areas of building/ dense tree lines.
- (e) Provides soothing camera view during live TV coverage
- (f) Acts as much for the existing bermuda grass cover during winters which eventually reduces winter kill of the existing grasses.

Process for winter overseeding !!!

- (a) A fungicidal spray to be done 7 to 10 days before actual seeding date with two more sprays at 20 days interval after seeding.



Picture 4.1



Picture 4.2



Picture 4.3

(b) The existing grass cover to be brought down to the lowest possible HOC, viz. up to 10 mm on tees and fairways, for rough areas upto 30 mm by employing machinery as shown in picture 1.1 & 1.2

(c) All irrigation fittings should be marked with flags to avoid any chances of damages to the sprinkler heads/ valves etc.

(d) Vertical mowing by tractor drawn Swing Wing machine, followed by sweeping by a tractor drawn sweeper/ Blower (Ref. Pictures 4.1,4.2 & 4.3).

(e) A cleaning pass of mower to be repeated at 10 mm on fairways and tees.

(f) Seeding of the prepared area with following equipment (Ref. Pictures 6.1 & 6.2):

(i) Tees & Fairways: By pendulum spout broadcaster and drop seeder.

(ii) Greens collar and surrounds: By 3 ft drop spreader.

(g) The seed to be broadcasted in the following fashion:

(i) 50% quantity length wise.

(ii) 50% quantity width wise, even distribution of seed.

(h) A light top dressing, especially on Tees and greens, to ensure a proper seed soil contact facilitates even germination.

(i) Watering of the seeded area by sprinklers (15 min cycle- two time). Area to be kept moist by repeated irrigation cycle for next 15 days.

(j) An intensive grow in program for the overseeded grass to be followed consisting of foliar application of fertilizers with micronutrients.

(k) The golf carts/ traffic on course to be regulated to facilitate even germination of seeds.

(L) First mowing of the grass to be done at 25 mm, appx. 10-12 days after seeding. The mowing height to be gradually brought down on fairways and tees to 14 mm in due course of time.



Picture 6.1



Picture 6.2

CAMPARISION BETWEEN OVERSEEDED & NON OVERSEEDED AREA



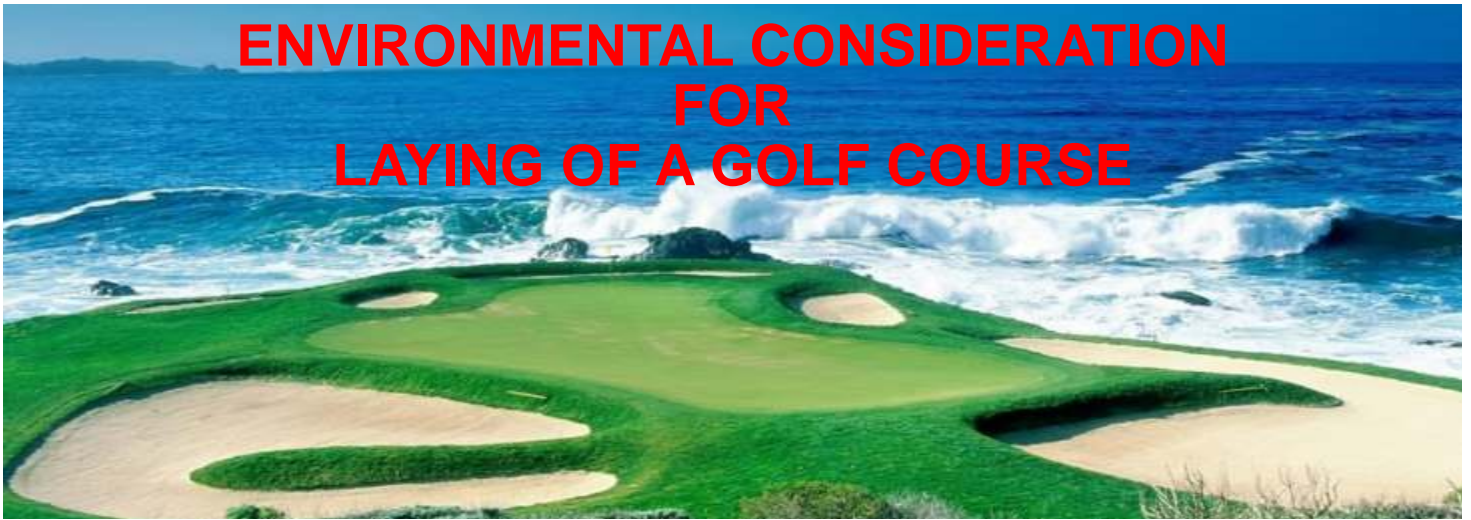
Considering the high input cost, moreover of recurring nature, I feel that it may not be economically viable for the management of the various golf courses/clubs, particularly under Indian context to take up the overseeding exercise year after year unless the cost is funded through the Tournament sponsors.

It will still be a wiser decision to keep your turf healthy specifically during that dormant season so that it can not only cope up with the vagaries of the nature but also the increased traffic of the golfing season.

The author is a post graduate in Horticulture from G.B Pant University of Agriculture, Pantnagar with over 14 years of experience in Turf Management, and a claimed Green Supdt from Classic Golf resort and Delhi Golf Club, presently working as Dy General Manager in Silverglades Golf Development Company.

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ENVIRONMENTAL CONSIDERATION FOR LAYING OF A GOLF COURSE



By : Dr M H Shah



Set of principles which seek to produce environmental excellence in golf course planning and siting, design, construction, maintenance and facility operations have been developed by leading golf and environmental

organizations. These have been compiled and edited as under:

These are envisioned as a tool of universal value, for national use under a variety of circumstances. However, it should be up to local communities, based on local values, and others involved in the regulatory process, to assess the environmental compatibility for golf courses.

These are meant to provide a framework for environmental responsibility in developing goals for existing courses and for considering issues associated with new courses. They are designed to educate and inform the public and relevant design makers about environmental responsibility, and to help set goals for environmental performance.

These are voluntary. They are not intended for use in making judgments about socio-economic issues. These principles assume regulatory compliance and are designed to provide opportunities to go beyond that which is required by law.

These principles were developed through a collaborative research and dialogue process, and represent a consensus of all endorsing organizations. They represent areas of agreement but do not resolve all environmental issues related to golf. The dialogue and process is ongoing, as is the implementation of these principles.

These principles are meant to be used as a guide to making good decisions. They are voluntary, and should be interpreted as representing a whole philosophy of good environmental design and management rather than specific dictates, each of which must be meant in all cases. It is hoped that the principles will be widely adopted and used to improve the level of environmental awareness, practice, dialogue and quality achieved within the game of golf.

- To enhance local communities ecologically and economically.
- To develop environmentally responsible golf courses that are economically viable.
- To offer and protect habitat for wild life and plant species.
- To recognize that every golf course must be developed and managed with consideration for the unique conditions of the eco system of which it is a part.
- To provide important green space benefits.
- To respect adjacent land use when planning, constructing, maintaining and operating golf courses.
- To create desirable playing conditions through practices that preserve environmental quality.
To support on going research to scientifically establish new and better ways to develop and manage golf courses in harmony with the environment.
- To document outstanding development and management practices to promote more widespread implementation of environmentally sound golf.
- To educate golfers and potential developers about the principles of environmental responsibility and to

promote the understanding that environmentally sound golf courses are quality golf courses. Voluntary principles for planning and siting, design, construction, management, facility operations and what golfers can do to help.

Planning & Siting

Developers, designers and others involved in golf course development are encouraged to work closely with local community groups and regulatory/permitting bodies during planning and siting and throughout the development process. For every site, there will be local environmental issues and conditions that need to be addressed.

Site selection is a critical determinant of the environmental impact of golf courses. A thorough analysis of the site or sites should be completed to evaluate environmental suitability. It is very important to involve both the designer and a team of qualified golf and environmental professional in this process.

- Based on the site analysis and/or regulatory review process, it may be determined that some sites are of such environmental value or sensitivity that they should be avoided. Other less environmentally sensitive or valuable sites may be more suitable or even improved by the development of a golf course if careful design and construction are used to avoid or mitigate environmental impact.

- The presence and extent of some types of sensitive environments may render a site unsuitable or, in some cases, a less suitable for golf course development. Like in following cases :

- Habitat for threatened or endangered plant or animal species

- Sensitive aquatic habitat

- There may be opportunities to restore or enhance environmentally sensitive areas through golf course development by establishing buffer zones or by setting unmaintained or low maintenance areas aside within the site.

- Golf course development can be an excellent means of restoring or rehabilitating previously degraded sites (e.g., landfills, quarries and mines). Golf courses are also excellent treatment systems for effluent water and use of effluent irrigation is encouraged when it is available, economically feasible and agronomically and environmentally acceptable. This is the first part of the paper and the second issue shall deal with aspects like construction,

maintenance, Water usage, waste management, facility operations and the golfers role.

The author is Former Director Research and Dean Faculty of Agriculture and can be emailed on admin@gcsmai.com

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CONCEPT OF GOLF

Golf has been described in many ways but never better than the one as described, by David R. Forgan.

Golf - It is science the study of life time, in which you may exhaust yourself but never your subject.

It is contest, a duel or a melee, calling for courage, skills, strategy and self control

It is test of temper, a trial of honour, a revealer of character

It affords a chance to play the man, and act the gentleman

It means going into gods out of doors, getting close to nature, fresh air, exercise, a sweeping away of the mental cobwebs, genuine recreation of the tired tissues.

It is cure for care an antidote to worry

It includes companionship with friends, social intercourse, opportunity for courtesy, kindness and generosity to an opponent.

It promotes not physical health but moral force

From a plaque at Golf House Museum, United States Golf Association, Far Hills, New Jersey.

GCS&MAI GREEN KEEPERS SEMINAR 2010



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