

Upper Truckee River Restoration and Golf Course Reconfiguration Project - DEIR Comments

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The attached comments and routing plan are based on discussions and observations made during a site tour organized by California State Parks and led by Cyndie Walck on 17 July 2018. Countless elements of the proposed Upper Truckee River Restoration and Golf Course Reconfiguration Project are to be applauded. The attached focuses on areas within it, where there may still be room for improvement.

Files:

LAKE TAHOE GOLF COURSE-EDWIN ROALD-DEIR COMMENTS-FINAL-20180730
LAKE TAHOE GOLF COURSE-EDWIN ROALD-ROUTING PLAN-FINAL-20180730

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Summary

Nothing has been found to indicate that re-routing a part of LTGC into WMSP is required for the course to maintain or enhance its popularity, appeal, reputation, status, potential, yardage, Course Rating or Slope. The enclosed routing plan and examples from low-acreage 18-hole championship golf courses suggest that 18 holes of full length can be designed without using any part of WMSP. Nevertheless, all river restoration objectives can be met.

Land Use

Re-routing golf holes into Washoe Meadows State Park (WMSP) is not necessary to maintain Lake Tahoe Golf Course's status, including hole count, yardage, course rating and slope. An 18-hole golf course can be designed within what would remain of the proposed Lake Valley State Recreation Area, outside the area currently classified as WMSP. While the importance of golf course yardage, Course Rating (CR) and Slope is debatable, all of these can be kept at their current levels or increased. This is supported by the enclosed golf course routing plan and the following references to Merion Golf Club, East Course in Ardmore PA, and Wannamoisett Country Club in Rumford, RI. Both are nationally renowned 18-hole championship golf courses.

Roughly 115 acres would remain of the Lake Valley SRA after abandoning all golf north of the Upper Truckee River and retreating further away from it to the south, as proposed in Alternative 2B.

In comparison, Wannamoisett has 18 holes, par 69 / 6,732 yards, and a small driving range on 105 acres. Merion, par 70 / 6,996 yards on 126 acres, last hosted the US Open in 2013. The property includes excellent practice facilities, extensive parking and other infrastructure required for the U.S. Open. Furthermore, the course is split in half by a road and is otherwise surrounded by housing. Acreage does not tell the whole story, but neither Merion nor LTGC have complex topography and both are relatively free of internal areas that need to be worked around or can not be used for golf.

Considering the above, including the spatial requirements of high-profile events like the US Open, this suggests that fitting 18 holes of full length within the remaining LTGC boundary is achievable. However, a slight expansion may be beneficial for all stakeholders, if appropriate considering environmental impact, as this may help add space between certain golf holes, for various ecosystem restoration or enhancement projects, added non-golf access, and to improve safety. An 8-acre expansion is shown in the enclosed routing plan, to the west of current green 6 and tee 7. In the plan, the expanded holes are numbered 5 and 6.

Routing Plan

The enclosed routing plan produces an 18-hole golf course of roughly 6,900 yards, par 70. Here, maximum achievable yardage is exclusively referred to as a playing length from the back tees, only for the sake of this comparison. It is otherwise recommended that detail design focuses on the playing length that fits most amateur recreational golfers, who are the core customers of a facility like LTGC.

The routing utilizes open space between existing golf holes and focuses on earthwork in areas away from current use to minimize interruption. Nevertheless, this also requires appropriate construction sequencing, planning and scheduling.

The routing features an enhanced or restored Meyers Creek that could play a larger role in the playing experience. This could produce memorable finishing holes on either nine-hole loop, setting up a grand finale with the creek visible from key vantage points such as the clubhouse restaurant and patio. The 18th hole has potential to become an excellent finishing hole, following holes 16 and 17 that could also hug the proposed restored old Upper Truckee River meander belt. Since these two water bodies are the site's main features, it is only fitting that they provide a certain climax and a fitting end to the playing experience.

Scale of Earthworks

In addition to five completely new golf holes in WMSP, Preferred Alternative 2B seems to suggest fairly extensive renovation or redesign of some of the existing golf holes. If desired, the enclosed routing plan provides a softer approach, with the following highlights:

- 7 new or substantially altered holes.
- Up to 2 additional new greens if deemed necessary.
- Up to 40 new tees, some intended to appeal to a wider audience and would thus be independent of the reconfiguration requirements.
- Cart paths re-routed, possibly aligning well with the proposed, desired drainage upgrade.

SmartRange Option

To free up space and keep both nine-hole loops returning to the clubhouse, it may be beneficial to adopt the SmartRange concept, where the driving range is replaced by a new indoor warm-up and practice facility fitted with new golf simulation technology, providing year-round use and appealing to a wider audience.¹

While the routing plan assumes that the driving range is replaced by this new type of indoor warm-up, practice and virtual golf-playing facility, open spaces achieved by the routing elsewhere on the property suggest that a more thorough scheme design may reveal an opportunity to keep or shift the driving range.

A similar concept has been implemented at Carnoustie Golf Links in Scotland, that recently staged the (British) Open Championship, one of golf's four largest individual competitions.² At a seasonal facility like LTGC, the SmartRange is particularly appropriate. This could support more year-round operations and attract a good deal of golfers among those who visit South Lake Tahoe in winter. This type of facility could also provide a refuge from excessive heat in mid-summer.

If/when replacing the outdoor driving range, it may be desirable to add better outdoor facilities for shorter golf shots, a so-called short game area.

The SmartRange also offers a logistical ability to perform phased construction, minimizing interruption to daily use. This would allow the building of new golf holes within the area currently occupied by the driving range. This is likely one of the reasons why California State Parks has proposed to build new holes beyond the remaining golf course boundary, which is understandable. However, a more modest land-use approach is achievable and recommended.

¹ <http://www.smartrangegolf.com/>

² <https://www.carnoustiegolflinks.co.uk/pro-shop/carnoustie-golf-performance-centre/>

Phased Construction

The aforementioned, phased construction could be set up as follows. Ideally, this would march in lockstep with the river restoration project:

1. Building the indoor facility, SmartRange.
2. Build new golf holes on the area now occupied by the driving range. This produces a course of 20 or 21 holes for a few years. The extra holes can be used compensate for the closure of others, to facilitate construction elsewhere on the course and to minimize interruption to players and to avoid closing the course.
3. Perform phased new construction and re-routing as required.
4. Abandon holes on and beyond the Upper Truckee River as proposed.

Safety

A compact routing like this requires more emphasis on safety margins from property lines and between holes as scheme design evolves. Good design can positively affect how golfers sense space and play their shots. Trees can be transplanted and sand bunkers placed, along with water and other features that can influence play to this purpose. This may be assisted through the simulation of golf shot dispersion by running actual golf shots measured by tried and tested launch monitors against geographical and meteorological data.

It may be argued that the attached routing plan features some narrow tee-shots from the back tees. However, these tees are predominantly used by skilled players whose shots have smaller margins of error.

Returning Nines

Like many golf courses, LTGC currently has two nine-hole loops that each start and end near the clubhouse. The attached routing plan maintains two returning nine-hole loops. The proposed alternative 2B, however, does not. The proposed alternative 2B gives customers only one option - to play one longer loop that only reaches the clubhouse after the full 18 holes.

Returning nine-hole loops have the following benefits:

- a. Allows the course operator to start players on the 10th hole, especially in the morning, until players starting on the 1st hole are likely to catch up with them. This increases the course's capacity.
- b. Provides more options to customers in terms of time spent on the course. The main emphasis has long been on 18-hole rounds, but recent initiatives by golf's governing bodies are designed to encourage course owners, operators and golfers to promote, accommodate and consider 9-hole play. This is generally seen as a vital element to ensure that golf facilities will remain relevant in an ever-changing society, where time and other resources are of the essence.
- c. Gives customers a chance to purchase refreshments, use restrooms etc. after completing nine holes.

This may encourage food & beverage sales and/or avoid the installation of an additional snackbar and restrooms out on the property.

USGA Play 9: <http://www.usga.org/content/usga/home-page/play9.html>

R&A 9-hole Championship: <https://www.randa.org/Championships/9HoleChampionship>

The (Un)importance of Course Yardage

LTGC has three sets of tees. With only a few exceptions nationwide, golf courses have these multiple tees to meet the needs of players of varying strength and skill levels. Many courses have even more tees on each hole. Four or five is common. The combined length of all 18 holes is 6,741 yards from the back tees, 6,327 yards from the middle tees and 5,703 yards from the front.

Assuming that the project aims to keep this three-tee approach or system, it may be argued that the course is around 300 yards too long from the middle tees, and as much as 600-700 yards too long from the front. Lengthening the course would only meet the requirements of or appeal to elite players and professionals, a microscopic part of golf facilities' customer base. This raises the question: Is it desirable, whichever the stakeholder, to allocate more funds, land and other resources to appeal to a fairly low-value demographic in what would likely be a futile attempt to attract elite tournaments or championships?

This is perhaps not a pressing issue since it has been shown here that 18 holes can be designed without expanding into WMSP, but this goes to show how much flexibility there is within that boundary, since it may be argued that the total course yardage, that the routing is able to produce, may not be needed.

Accepting a slightly reduced yardage, even though the hole count remains at 18, significantly increases design potential. In 2016, the city of Winter Park, FL decided to renovate its 9-hole Winter Park Country Club. Due to the small site, the course is only 2,527 yards long from the back tees for the nine holes, or 5,054 yards for eighteen holes. This is still roughly 700 yards shorter than the front tee yardage at LTGC. This did not stop the City of Winter Park to invest significantly in updating the course, which has received praise nationwide and beyond for its appeal to players of all abilities.

Walkability

The more compact, attached routing, avoiding expansion into WMSP, would offer considerably shorter distances between holes, i.e. from a green on one hole to the tee on the next. This makes the course more walkable, and may encourage more players to play golf on foot, as opposed to riding a cart. This may help appeal to a wider audience, promote public health and contribute towards indirect savings in health care.

This is a public health concept that fits well with California State Parks' mission statement: "To provide for the health, inspiration and education of the people of California by helping to preserve the state's extraordinary biological diversity, protecting its most valued natural and cultural resources, and creating opportunities for high-quality outdoor recreation."³ This is perhaps something that an official, publicly

³ https://www.parks.ca.gov/?page_id=91

funded owner such as CSP should stand for. Cart golf is one way, but not the only way. Many successful facilities exist where walking is emphasized. While not necessarily appropriate considering LTGC's current customer base, caddie programs may help involve the local youth and/or create jobs.

Non-golf Access

The enclosed routing plan includes added internal non-golf pedestrian access. The Scandinavian Turfgrass and Environmental Research Foundation, STERF,⁴ has defined the concept of multifunctional golf courses as one of its main areas of focus, highlighting the following benefits:

- Increased visibility of golf. Barriers are broken.
- Encourage more varied use of buildings and infrastructure.
- Encourage more food & beverage customers.
- Increased social contribution.
- Better image.

This concept does not only apply to mixing land-uses or sharing land, but also and in no lesser way to the preservation of cultural heritage elements. Records indicate that LTGC was designed by William F. Bell, whose family was known as California's first family of golf. Elements of the era's classic architecture may be used as inspiration in the detail design. This further supports the notion of staying within the remaining footprint. This valuable heritage could be featured interestingly in clubhouse decor, golf course furniture and various other features.

Fewer Holes are a Real Option

Although the golf course can remain 18 holes, accepting a reduction in hole count is a real option, one that requires much less capital investment. Theoretically, building new golf holes is not necessary. Albeit somewhat novel and perhaps controversial, the 13 remaining holes could be connected to form a cohesive loop starting and ending at the clubhouse, with an option to return there after nine holes. This would require only a trivial amount of funds compared to the cost of implementing the proposed alternative 2B, as it would only require one new putting green and a few hundred yards of new cart path. This approach - simply abandoning the much discussed river holes and playing only the rest - would correspond to how golf was played for around 450 years before 18 holes became mainstream in the late 1800s, and produce multiple, mutual benefits.⁵

Recently, 12-hole golf courses have been endorsed by golf's governing bodies and some of golf's greatest players, including Jack Nicklaus. Some stand-alone 12-hole courses, old and new, have made a name for themselves internationally, including Shiskine in Scotland and Brautarholt in Iceland.

⁴ <http://www.sterf.org/Media/Get/1788/multifunctional-golf-courses-an-underutilised-resource>

⁵ <http://www.why18holes.com/>

Golf's proposed new World Handicap System⁶, to be launched in 2020, is expected to accommodate 12-hole play. This is driven by golf's governing bodies, The R&A in St. Andrews and The United States Golf Association, USGA. Should the opportunity present itself, the latter organization has indicated interest in featuring LTGC as a pilot project in possible further development of the handicap and course rating system to golf courses with other hole counts than 9 or 18. This could raise LTGCs profile and help establish an image for it as a trailblazer and innovator in golf.

While also an option, reducing LTGC to 9 holes is perhaps less desirable since the course already has more holes (12-13) that would remain intact. While popular in many locations, 9-hole courses are more limited in daily capacity to sell tee-times since those who want to play 18 holes must be allowed back on the 1st tee. Timing their return from the first nine holes is a constant challenge, as pace of play can fluctuate.

Interestingly and perhaps surprisingly, a golf course with a dozen or so holes, or a few more, has more daily tee-time selling capacity than a 9 or 18-hole facility. This occurs if the course has enough holes to allow the golfer to reach a certain level of fulfilment, so that he/she does not require another round. This avoids a 1st tee restart, keeping the course free for bookings all day. Also, as the course does not have 18 holes, the round does not take as long. Therefore, the last available tee-time of the day, in terms of daylight hours, occurs later in the afternoon or evening, yielding more daily tee-times that can be sold.

Like all industries, golf is bound to adapt and innovate as the pressure on land and resource use continues to increase alongside changing lifestyles. Golf course renovation and redesign can be a long process. The danger is real, that a project of this magnitude is exposed as being obsolete on opening day. Therefore, building flexibility into the project is recommended. While there may be some drawbacks to a more compact layout, this inevitably provides more options in response to an unpredictable future.

⁶ <http://www.usga.org/content/usga/home-page/handicapping/world-handicap-system/WHS-resources.html>

Cost

A preliminary study suggests that the attached routing plan costs less to implement than the proposed alternative 2B, mostly as the new holes within the existing footprint can be built by cut & fill in-situ. This means that one can be mostly self-sufficient with soil. Conversely, the previously proposed new holes in WMSP likely require top-soil hauled into the site from external sources. The preferred cut & fill process can draw material from within the excavator's or bulldozer's reach, that may require grading for other, aforementioned reasons. This minimizes hauling, which carries a larger carbon footprint, requires more machinery and personnel and therefore costs more.

Possible Positive Reconfiguration Byproducts

The required adjustment of existing holes may provide opportunities to optimize the course in terms of:

Pace of play. Optimizing the sequencing of holes in terms of length and par, to minimize bottlenecks in flow which lead to golfers spending excessive time waiting for the group in front. This may help increase revenue.

Reduced maintenance cost. For example, sand bunkers are costly to maintain. The current LTGC has 60 sand bunkers. This may quite easily be reduced by half.

In upgrading the course, it may be prepared so that turf can be managed only with ride-on machinery or robots, eliminating mowing with flymo-mowers and similar. This may help reduce cost.

Playability. Shortening the course from front tees. Desirable to have tees that play less than 5,000 yds. This may help appeal to a wider audience.

Minimize/optimize turf area. We can simulate where balls are likely to land by running our own database containing thousands of golf shots struck by golfers of both genders and varying skill levels, in industry-leading launch monitors, against geographical and meteorological data. This may help reduce cost.

Turf winter survival. More work on the existing course may help minimize risk of winter turf injury. Discussions with LTGCs general manager revealed some winter damage from Anoxia, suffocation under ice cover, e.g. on the 5th hole. To address this, one must deal with surface water runoff in winter. This is when water can only drain laterally across the surface as ground is frozen. Design can significantly impact this and address issues such as:

- Winter access to remove ice
- Shade and solar radiation
- Air circulation
- Re-grading some areas p, e.g. around cart paths, may improve this.

Risks May Provide Research Collaboration Potential

In an environmentally sensitive location such as this, concept and design work should consider possible nutrient leaching, into groundwater or open water, not only during the maintenance season, but also during and snow melt during winter. Recent scientific research project proposals have revealed some concern over winter surface water runoff contaminating nearby water courses. Taking this and other related issues is recommended. Furthermore, it may be appropriate and beneficial for California State Parks to take part in research project(s) within this subject or to nominate LTGC as a testing site.

GEO Certified Eco-label for Golf Facilities

The Golf Environment Organization ⁷ offers mentoring and certification programs for both golf course (re)developments and operations, called GEO Certified. These emphasize transparency. Inputs in golf course maintenance, such as fertilizer use, are made publicly available. This strengthens a project's credibility, builds a positive image and raises a project's and a facility's profile. In addition to these benefits, the mentoring process alone can produce innovative construction ideas that may save at least the money invested in the registration fee. Participation in GEO Certified is very fitting for an owner such as California State Parks, considering its mission statement.

⁷ <https://sustainable.golf/>