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Dedicated to Protecting the Beauty and Wildness of the Wasatch Canyons, Mountains and Foothills

April 28, 2015

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Dear Mountain Accord Executive Board,

Please accept these comments, submitted on behalf of Citizens' Committee to Save Our Canyons, concerning the Draft Blueprint for the Mountain Accord process.

Save Our Canyons is a non-profit corporation dedicated to protecting the wildness, natural systems, and beauty of the Wasatch Mountains, its canyons and foothills. Founded in 1972, it currently has over 1,700 members, who share a deep appreciation of the quiet, solitude, and recreational opportunities the Wasatch Mountains provide, and an interest in maintaining these qualities. Members of Save Our Canyons are dedicated to adoption and implementation of careful landscape management in order to maintain the biological integrity of the unique and fragile mountain ecosystems that make up the Wasatch. Many of Save Our Canyons' members frequently recreate in the Wasatch, and their recreational and aesthetic experience will be affected by the proposals currently being considered through the Mountain Accord process. Most of Save Our Canyons members live along the Wasatch Front and depend on the headwaters of the Wasatch to provide clean drinking water. Many of the proposals being considered could have a significant impact on the health of the watershed and could negatively affect the quality of the drinking water derived from the Wasatch. For these reasons, Save Our Canyons appreciates the opportunity to comment on the Blueprint proposals under consideration.

The Wasatch Mountains are a finite and precious resource. No other urban city in the United States, dare we say in the world, provides a parallel opportunity for recreation in a wild and scenic mountain environment within minutes from a highly urbanized and built environment. Furthermore, life in the Salt Lake Valley depends on maintaining the health and integrity of the watershed in the Wasatch. Fifty to sixty percent of Salt Lake City's water supply comes from streams and aquifers whose waters originate in the Wasatch. To preserve this resource, proposals selected during the Mountain Accord process must put a premium on preserving these essential ecosystem services, maintaining the biological integrity of riparian areas, and protecting the environmental values that make the Wasatch unique and precious. It is critical that the multiple jurisdictional authorities implement integrated management, long range planning, and innovative landscape-level protections.

Save Our Canyons would encourage Mountain Accord to carefully consider landscape-level conservation planning and, in particular, land exchange as tools to promote conservation and environmental

protections with permanent effects over large areas of land within the Wasatch. Landscape conservation and land exchanges can reduce and avoid mountain sprawl and increasing visitor impacts. As population increases, increased pressure on the natural environment will increase. By engaging in landscape-level conservation planning, the Mountain Accord can assure protection of the highest quality and quantity of land so that the natural environment is robust and that future generations can enjoy the bountiful natural resources that we enjoy today. These ideas will be outlined further in Section I.

In light of the importance of the natural Wasatch region, some of the proposals developed during the brainstorming phase should be rejected without further analysis or consideration because it is already obvious that they would have profound negative effects on environmental resources like wildlife, riparian habitat, in-stream flows, and aquifer recharging. Specifically, Save Our Canyons is opposed to current plans for rail lines, tunneling and road expansion in the canyons. Save Our Canyons is opposed to new aerial lifts connecting multiple resorts or connecting Park City to the Cottonwood Canyons. Depending on its alignment, the proposed rail line and associated tunnels could significantly degrade the watershed and wildlife habitat. The topography of Little Cottonwood Canyon forces development in rich habitat and riparian areas of Little Cottonwood Creek and its tributaries. It is unlikely that there will be a reasonably conceivable alignment for the proposed rail line that could avoid significant degradation of critical watershed values and wildlife habitat. For the same reasons, any significant enlargement or realignment of the road in Big Cottonwood Canyon would have similarly derogatory effects. Proposed tunnels are a massively invasive project that could dramatically alter drainage patterns, disrupt aquifers, and drain wetlands. Finally, aerial lifts have profound negative impacts on wildlife habitat, watershed, migratory species, natural vistas and wetlands. Such dramatic risks should be rejected at the outset. Section II articulates these concerns in more detail.

As the Mountain Accord process moves forward from the brainstorming phase to the analysis and selection phase, Save Our Canyons emphasizes that Mountain Accord's selection of proposals should be done within the context of existing laws, policies, and procedures. Additionally, it is our expectation that the projects forwarded on to receive additional analysis receive equal footing in the NEPA process. We don't believe that any one option has enough support to be considered the "proposed action" and that the NEPA process should be used, as it was intended to inform decision making, not be biased by proposing a singular action, giving it preference above the rest. The Mountain Accord process is not the first time that long-term planning for the Wasatch has been undertaken. For example, since the 1970s, Salt Lake County has engaged in long term planning to develop an Area Wide Water Quality Management Plan, consistent with Clean Water Act Section 208 guidelines. That plan, most recently updated in 2009, which established management priorities and binding restrictions for development within the Salt Lake County Watershed, has the force of law. Proposals that are inconsistent with existing laws, policies, management priorities, including those articulated in the Salt Lake County Water Quality Stewardship Plan, should not move beyond the brainstorming phase to the analysis and selection phase. Save Our Canyons' justification for this position is set forth in more detail below in Section III.

Furthermore, transportation for the Wasatch Canyons must be developed in coordination with the existing transportation system. It cannot be considered in isolation. Failure to integrate the transportation plans for the Wasatch with effective transportation systems through the valley will limit the quality and effectiveness of the chosen transportation system. As currently proposed, the rail line is poorly integrated into the current and proposed transportation lines and infrastructure. Thus, the proposal fails to address the transportation needs of the Wasatch population and only caters to a small portion of the population. Also, the proposed aerial line, which is being characterized as a "transportation" option, is not a viable form of transportation and it is poorly integrated into the larger transportation system. It will not provide high-capacity, broad-based service to the general population, yet it would impose significant environmental consequences. Similarly, the proposed rail options have been conceptualized in isolation and are not designed to integrate with the larger transportation system. Instead, the rail appears designed to cater primarily to visitors, who are only a portion of the canyon users needing an effective transportation system. In contrast, there are feasible, easilyimplemented transportation options that could integrate with existing transportation infrastructure, serve a broader spectrum of society, and provide the needed capacity to canyon users, but these options have been eliminated from consideration without justification. The Blueprint should consider more transportation alternatives that do not require increased infrastructure in the Cottonwood Canyons and that avoid major negative impacts to the environment. Specifically, the Mountain Accord should take a serious look at shuttle systems like those used in some of our National Parks. Finally, Mountain Accord should explain why certain options are no longer on the table, instead of dismissing them without justification. Section IV discusses these issues in more detail.

Save Our Canyons, strongly supports the efforts within Mountain Accord to increase federally designated Wilderness and strengthen other protections for this iconic landscape. A few short years ago, we were able to introduce consensus comprehensive compromise legislation to the US House of Representatives, however the efforts were stymied for political gain. Our hope is to proactively engage the Mountain Accord, at the request of the system groups to expeditiously realize federal protections for this landscape. It has been concerning to us that while overwhelming support of this idea from local communities has been prevalent throughout the process, not much in the way of legislation has been crafted. We hope legislation will be drafted soon to demonstrate the sentiment is genuine.

Looking forward, there are several elements in the Draft Blueprint that should be altered in order to better serve the future of the Wasatch Region. Save Our Canyons reemphasizes the importance of providing strong, permanent conservation measures to protect vital environmental resources. This should include Land Exchanges that focus on consolidating publicly held lands, establishing permanent conservation measures and limiting mountain sprawl. Mountain Accord is a new process, is unique in how it intends to invoke the National Environmental Policy Act and has been a learning experience for all involved parties and the public. We hope these comments help to disclose and articulate the concerns of us and the thousands of people we've interacted with since the process began.

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I. Mountain Sprawl should be avoided in the Wasatch. Mountain Accord should engage in Landscape-level conservation planning. Land Exchange is a critical tool for avoiding sprawl, as well as promoting land conservation, protecting natural habitat, watershed and landscapes, preventing mountain sprawl and for assuring a more permanent solution to ongoing threats to natural resources.

Save Our Canyons finds great value in the Mountain Accord process. It is a process which can address problems in the Wasatch region through meaningful engagement and comprehensive solutions. As our population grows, Save Our Canyons has become increasingly concerned that sprawling development in the mountains will degrade the natural characteristics of the Canyons. Over the course of the past few decades, elected leaders have echoed our forty-year caution that the Wasatch is being "loved to death" and that our prior land use decisions making processes promote "death by a thousand cuts." As such, Save Our Canyons supports the Mountain Accord process and the possibility of developing and implementing landscape-level conservation plans that will protect the integrity of the watershed and preserve the recreational value of the Canyons for the future. The Draft Blueprint must incorporate landscape-level conservation planning or the current plans could exacerbate increased sprawling developments and unmanaged use of the mountains. To accommodate projected population and visitor growth without degrading the scenic beauty and ecological integrity of the canyons, Mountain Accord should take advantage of landscape-level conservation and land exchanges as ways to protect the landscape and establish permanent conservation measures. New development should be limited and concentrated on already developed land or transferred outside of the canyon environs.

The Wasatch Mountains already suffer from urban mountain sprawl. Dispersed private land inholdings threaten more of the same. The Draft Blueprint does not explicitly limit new development. Instead, the current Draft Blueprint's aerial and rail lines in Little Cottonwood Canyon exacerbate the risk of future mountain sprawl. Aerial lifts and rail lines can be an excuse to increase development and expand ski resorts, but the Blueprint does not pair these transportation proposals with development restrictions. The aerial lift plans discussed in the Transportation White Papers includes up to 17 new towers at a height of 200 feet. The Economy System's enthusiastic emphasis on aerial lifts and the rail line (even though there is no indication that the proposals would be economically beneficial) suggests that these corridors would be used for further development that would exacerbate sprawl. Because economic goals are centered on these projects, development around the lines appears to be anticipated and intended. It is likely that interested parties will seek to expand development around lift stations and add more stations in undeveloped areas. Even without extra development around the lift hubs and rail stations, the new lines will need land on which to build. Similarly, the tower corridor will require access and maintenance roads, as well as infrastructure for the stations themselves. This infrastructure will cause habitat fragmentation for flora and fauna. Finally, the Draft Blueprint plans include changes to

¹ Mountain Accord, *Draft Transportation White Paper*, 42, 2014. (Hereinafter Transportation White Paper).

the ski resort boundaries. In multiple instances, the ski resorts have expressed desires for expanded ski boundaries, the acquisition of new land, and the trading of land. There is a danger that expanded ski boundaries exacerbate the mountain sprawl problems.

The Mountain Accord should focus on landscape-level conservation planning, and land exchanges are ways to provide permanent, meaningful solutions. Landscape-level conservation planning is a "process of locating, configuring and maintaining areas that are managed to maintain viability of biodiversity and other natural features." The process develops a portfolio of areas that represent the full distribution of diversity in a system and then establishes standards to maintain biodiversity. Any Landscape-level conservation should include a hierarchy of mitigation techniques. The planning should seek first to avoid harm, then minimize effects, restore damage and finally offset the damage. Landscape-level conservation planning in the Mountain Accord process should focus principally on avoidance and minimization. As a method for restoration and offsetting damages, the Mountain Accord should use land exchanges. Land exchanges should focus on exchanging private lands for other lands that fill landscape-level conservation goals. Exchanges should provide permanent conservation status sufficient to protect the natural landscape, assure safe and ample wildlife habitat and to protect the watershed.

Landscape-level conservation and thoughtful concentration of new development is consistent with the Mountain Accord goals and with regional management priorities. Containing and restricting development is already an established priority for Mountain Accord stakeholders. For example, Salt Lake County manages the canyons through the Wasatch Canyons Master Plan of 1989, and special zoning for the Foothills area. Salt Lake County's goal is to "provide diverse opportunities for public enjoyment of the canyons within the constraints of a limited geographic setting and the capacities of the natural environment to accommodate uses without significantly diminishing the quality of the canyon resources or the quality of the canyon experience." The Foothills and Canyons Overlay Zone (FCOZ) protects the Wasatch from degradation. FCOZ ordinances avoid erosion and scarring in the canyons, require developments to match natural slope, prohibit degradation of fragile soils on steep slopes, preserve water quality, minimize vegetation disturbance, preserve wildlife habitat, and protect aquifer recharge areas. The US Forest Service's policy is to maintain communities within their historic range, limit ski resorts to the permanent boundaries provided in the Forest Plan, except where small changes are necessary for important management issues. Additionally, the USFS prohibits realigning wilderness

² Joseph M. Kiesecker et al., *Development by design: blending landscape-level planning with mitigation hierarchy, Frontiers in Ecology and the Environment*, Vol. 8 No. pp. 261, 262 (June 5, 2010).

³ *Id*.

⁴ Shirley Saenz, et al., *Development by Design in Colombia: Making Mitigation Decisions consistent with Conservation Outcomes*, 8(12) PLoS One, e81831, e81831 (2013).

⁵ Salt Lake County, *Salt Lake Countywide Watershed Plan- Water Quality Stewardship Plan, Headwaters Element, 4-* 9-5, 2009. (Hereinafter Water Quality Stewardship Plan).

⁶ *Id*.

⁷ Id at 4-9-6

⁸ United States Department of Agriculture, Revised Forest Plan Wasatch-Cache National Forest, 4-18, 2003.

⁹ *Id.* at 4-161. (Hereinafter Wasatch Forest Plan).

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boundaries.¹⁰ Some of the proposals, like new aerial lifts, rail lines and expanded ski area boundaries, appear contrary to these existing policies.

Land Exchanges are a powerful way that the Mountain Accord process can provide permanent, meaningful solutions limiting mountain sprawl and preserving the ecological integrity of the canyons. Save Our Canyons encourages efforts to conduct land exchanges in which private lands are exchanged for public lands under the condition that the formerly private lands will enjoy permanent conservation status guaranteed to protect the natural landscape, watershed qualities, and provide safe and ample wildlife habitat. Of particular importance to Save Our Canyons is that the Mountain Accord process includes land exchanges for areas such as Guardsman Pass, Grizzly Gulch, Flagstaff Mountain, Mt. Superior, Reed and Benson Ridge, and White Pine Canyon.

In summary, Save Our Canyons supports land exchanges as a tool to keep development within concentrated pockets and prevent mountain sprawl. By reducing inholdings and dispersed landownership, landscape-level conservation can be more feasibly implemented. Consolidation of public lands will protect watersheds, avoid wildlife habitat fragmentation, and maintain scenic natural beauty. Concentrating development in already impacted lands will allow economic development without compromising the scenic and ecological qualify of the Canyons. For these reasons, Save Our Canyons encourages the use of Land Exchanges as a strong tool to provide permanent environmental protection to critical areas while accommodating anticipated future growth.

II. Many of the proposed transportation solutions (building a rail line, widening the existing roads to create a dedicated bus lane, and constructing an aerial lift to connect canyons) should not be considered further because it is obvious that they would have significant negative environmental impacts that cannot be reconciled with Mountain Accord's goals or existing laws, regulations, and policies that prioritize watershed protection and other environmental values.

The Draft Blueprint outlines new rail and road infrastructure in Big and Little Cottonwood Canyons and aerial lifts or tunnels connecting Big and Little Cottonwood Canyon to Park City. Although these projects have not yet been studied, it is already obvious that the proposals will require extensive infrastructure and will likely result in significant and undesirable environmental impacts. The proposed rail through Little Cottonwood Canyon would have serious negative effects on the stream corridor, water quality, and recreational experiences. Widening the road for a dedicated bus lane in Big Cottonwood Canyon poses similar problems. These effects cannot be mitigated due to the topography of both canyons. Proposed tunnels will likely alter drainage patterns, compromise the integrity of wetlands, and interfere with aquifer and groundwater recharge zones. The risks associated with the construction of these tunnels are unpredictable and irreversible, making mitigation unrealistic. Aerial lines should be rejected because they compromise the integrity of the watershed landscape, fragment

¹⁰ *Id*.

wildlife corridors, and diminish the visual aesthetics of these iconic mountain landscapes without actually solving transportation problems. Because the environmental impacts of these projects are already obvious and cannot be feasibly avoided, they should not move forward.

A. A rail line through Little Cottonwood Canyon should not be constructed because of the negative impact to watershed, wildlife and wetlands.

The rail line for Little Cottonwood Canyon presents significant threats to watershed integrity, stream flow and wetlands areas. Unless the rail line can be built on the existing road, or unless the environmental impacts can be thoroughly mitigated—conditions that are probably not feasible—it should not be built. Any rail line proposals should be required to coincide with the legal standards currently found in local, regional, state and federal organizations as outlined in Section III. Furthermore, as described in more detail in Section IV, the rail line does not do enough to truly connect people to the canyons. The system is poorly integrated into current transportation infrastructure and the rail does not cater to a large enough percentage of potential users.

i. Rail lines through Little Cottonwood Canyon will negatively impact in-stream flows, lead to greater pollution and increase impacts on ecological systems.

The problem with a rail line is alignment. Little Cottonwood Canyon is narrow and steep, leaving few alignment options. Construction in the riparian zone is most likely, and that has several obvious environmental impacts that should be avoided from the outset. Construction will require channeling the river, shoring up river banks, culverts and other alterations. Clearly these alterations will negatively affect the riparian corridor, water quality, and in-stream flows. Additionally, the proximity of the line to the creek will affect water quality through erosion, runoff, and the elimination of riparian vegetation. On the recreational side, the rail line will cut off access to recreation areas and could have a detrimental impact on wildlife. Furthermore, construction of the rail line would likely violate existing setback provisions that prohibit construction next to waterways.

Admittedly, the existing road, which relies on private vehicles for transportation, already poses threats to the water quality and needs to be upgraded. Some watershed impacts associated with the existing transportation system would be reduced or eliminated through the implementation of an improved public transportation system. For example, threats to public safety, excessive emissions, and degraded recreational experiences could be addressed by implementing an effective public transportation system in Little Cottonwood Canyon. However, building a rail line adjacent to the stream, without eliminating private vehicle usage will not address these existing problems with the current transportation system. Including a rail line in addition to existing roads will only incentivize greater uncontrolled use of the

¹¹ Compare Salt Lake County Watershed Stewardship Plan § 4.9.17 (identifying transportation challenges caused by the use of private vehicles in the canyons that threaten water quality and watershed health including (1) reduced public safety; (2) increased soil erosion; (3) spills into the creek; (4) reduced air quality; and (5) reduced recreational experience).

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canyon causing even greater environmental impact from new users. In contrast, prohibiting or discouraging private vehicle use and implementing a shuttle system up the Canyons could increase public safety, avoid excessive emissions, and improve the recreational experience, without imposing additional, substantial, negative effects on the riparian corridor. Section IV describes these alternatives in more detail.

Stream bank stabilization alters sediment dynamics, aquatic and riparian habitats, and channel geometry. A study of the impacts of construction and project areas on the White River in Colorado concluded that streams with development in close proximity are more likely to see sediment deposits. After comparing base streams to ones close to human alterations, the study concluded that project streams have higher sediment content, more unstable river banks and a higher likelihood of undercut banks. These same consequences would likely be seen if the rail line were built in close proximity to Little Cottonwood Creek.

The existing road already compromises watershed values by encroaching on the riparian corridor in Little Cottonwood Canyon. Construction, maintenance, and operation of a rail line inevitably further degrade water quality through erosion, sediment transport, and elimination of riparian vegetation. The Salt Lake County Watershed Plan recognized that transportation-related impacts, like increased soil erosion and spills into the creek, already threaten water quality. Construction of the rail line adjacent to the stream will exacerbate these identified risks. Such foreseeable impacts should not be permitted and are contrary to Mountain Accord's environmental goals.

Additionally, construction and maintenance of the rail line will violate existing laws that restrict development adjacent to the streams. According to the Water Quality Stewardship Plan, maintaining minimum stream set-backs "is crucial in protecting riparian vegetation" and is "essential for fish, wildlife, and water quality requirements." Existing laws also prohibit development on slopes that exceed 30%, prohibit alteration of in-stream flows, and prioritize protecting mature riparian vegetation. The topography of the canyon indicates that the rail line will violate the set-back provisions in at least some areas. Additionally, construction cannot be accomplished without destroying mature riparian vegetation, and it will likely require alteration of in-stream flows. With such obvious problems at the outset, the rail line should not move forward for detailed analysis or study. More detail

¹² Ellen Wohl, *Human Impacts to Mountain Streams*, 79(3) Geomorphology, 217, table 1 (Sept. 30, 2006).

¹³ Gabrielle C.L. David *et al.*, *The impacts of ski slope development on stream channel morphology in the White River National Forest, Colorado, USA,* 103 Geomorphology 375, results (2009).

¹⁴ *Id.*

¹⁵ Water Quality Stewardship Plan, § 4-9-17.

¹⁶ Water Quality Stewardship Plan, §4-9-2.

¹⁷ Water Quality Stewardship Plan, § 4-9-18.

¹⁸ Salt Lake County Ordinances, 19.72.030(A)(5)(b)(i).

¹⁹ *Id.* at, 19.72.030(A)(5(b)(ii).

²⁰ *Id.* at 19.72.060(A)(2)(a)(i).

of potential environmental impacts is provided below and a detailed discussion regarding conflicts with legal standards is discussed in Section III.

Construction of the rail line will almost certainly eliminate much of the existing vegetation along the rail corridor. Riparian vegetation naturally filters pollutants, reduces erosion, maintains water quality, aids floodplain development, improves floodwater retention, improves groundwater recharge, and stabilizes stream banks.²¹ If the rail line is adjacent to the stream these environmental benefits will be compromised or even eliminated. The resulting lack of pollutant filtration will impair important drinking water sources and the natural habitats that are dependent on suitable water quality.

Currently, the Wasatch Mountain streams are the "least altered streams in Salt Lake County." This is a designation we should not only cherish, but protect! The alignment of the rail line would likely require changes to in-stream flows through channeling and diversion. Utah law prohibits the relocation of a natural stream channel or the alteration of a bed or bank of a natural stream without first obtaining written approval from the state engineer. 23 The state engineer may decline the application if the relocation or alteration will unreasonably or unnecessarily adversely affect a public recreational use or the natural stream environment, endanger aquatic wildlife, or diminish the natural channel's ability to conduct high flows.²⁴ In this case, any significant relocation or diversion of Little Cottonwood Creek is unreasonable and unnecessary because there are feasible transportation solutions that do not affect public recreational use, degrade the natural stream environment, or endanger wildlife resources. For example, assuming that the purpose of the proposed rail line is to provide efficient transportation for large numbers of visitors and to reduce the number of private vehicles in the canyons, the same result could be achieved by prohibiting private cars in the canyon and implementing a bus shuttle system like the one used at Zion's National Park. This will be discussed further in Section IV. Because there are feasible public transportation alternatives that achieve the same desired result as the proposed rail line, it is unnecessary and unreasonable to relocate or divert Little Cottonwood Creek in order to construct the proposed rail line.

Construction of the rail line adjacent to the riparian corridors will also reduce recreational opportunities. A rail line will cut off access to the stream banks of Little Cottonwood Creek. Furthermore, safety concerns will also restrict public access because in many places it would likely be unsafe to have individuals recreating next to the rail line. Utah law protects recreational access to streams and other waters of the state. For example, the Utah Supreme Court specifically recognized that the public has an interest in the use of state waters for recreational purposes including hunting, fishing, and participating in legal activities when utilizing the water. Similarly, Sandy City, which has extraterritorial jurisdiction over the Canyon, explicitly prioritized "the preservation of public access to mountain areas and natural

²¹ Water Quality Stewardship Plan, § 4-9-18.

²² *Id.* at, § 4-9-1.

²³ Utah Code Ann. § 73-3-29(1).

²⁴ Utah Code Ann. § 73-3-29(4)(a)(b).

²⁵ Conaster v. Johnson, 2008, UT 48, ¶ 8.

drainage channels."²⁶ Eliminating public access and recreation adjacent to Little Cottonwood is not only inconsistent with existing laws and management priorities, it is also unreasonable and unnecessary where alternative transportation options exist that do not have such extreme effects on public access and recreation.²⁷

Finally, the rail line threatens wildlife habitat as well as recreational activities involving wildlife both on site and through habitat fragmentation. Diversion or relocation of the creek would harm aquatic wildlife, reduce the quality of fish habitat, and deny species access to water sources. Proposed rail lines will also intersect major wildlife migration routes. The migration routes through the Wasatch are not just for animals moving from one side of the canyon to the other but are used by species that traverse large portions of the Rocky Mountains. Rail lines may not be crossable by all migratory species and the rail lines could bottleneck migration into only a few areas which increases the likelihood of species conflicts and can alter the predator/prey dynamic. Furthermore, the train itself, running up and down the canyon many times a day for perhaps 20 hours per day could also be disruptive and destructive to wildlife populations. If the alteration is significant, it is feasible that migratory populations throughout the entire Rocky Mountain Range could be negatively affected.

In summary, the proposed rail alignment in Little Cottonwood Canyon poses significant environmental risks on many levels including: wildlife, water quality, recreational access and in-stream flow. Building a new rail line along the riparian corridor in Little Cottonwood Canyon, particularly without discouraging private vehicle usage, conflicts with existing laws and priorities as discussed in Section III. Due to the obvious and extensive negative impacts on the environment associated with this option, it should not move forward to the detailed analysis phase unless it is accompanied by specific, detailed, enforceable mitigation strategies.

ii. The tunnels for the proposed rail lines in the Draft Blueprint will negatively impact the watershed, wetlands, and aquifer recharge.

The proposed tunnel construction is extensive and poses risks to the watershed, wetland areas and water quality. According to the Town of Alta General Plan, there are many seasonal or intermittent wetlands within the Albion Basin.²⁸ These wetlands are critical to the natural ecosystem, drinking water sources and the recharge of mountain aquifers.²⁹ While the Environmental Idealized System Metric prioritizes sensitivity to wetlands and underground aquifers, the current plans give no detail how tunneling will avoid potential harm to wetlands or underground aquifers. It is likely then that extensive tunneling will alter the flow of the watershed and aquifer recharging in unknown ways. For example, the only study conducted on the interplay between wetlands and aquifer recharge in Albion basin

²⁶Sandy City Ord. § 15A-15-01(D).

²⁷ Compare Utah Code Ann. § 4-9-1 (allowing State Engineer to deny diversion requests that unreasonably or unnecessarily detract from public access and recreation).

²⁸ Town of Alta, *Town of Alta General Plan*, 4 (November 2005).

²⁹ Id.

suggests a strong connection between surface water and recharge of the water table, but the connection is not well-understood.³⁰ Because little is known about the placement or operation of aquifer recharge zones, the risks posed by tunneling cannot be effectively mitigated, and the potential harm may not be visible until it is too late. Accordingly, this option should be rejected at the outset.

Minimizing impacts to the watershed and aquifers is even more important when considering the likely effects of climate change. Given the anticipated reduction in snowpack caused by climate change, it does not make sense to implement projects that could cause entirely avoidable degradation of groundwater recharge.

In addition to posing a risk to important wetlands and habitat, the tunnels also threaten the function of groundwater recharge, which could affect water quality and quantity. Because wetlands serve as recharge zones, damage to wetlands could affect the water table, underground aquifers, and other critical water resources. Reduced recharge capacity could have an impact on the availability and quantity of water resources from year to year. The very sensitive nature of our watershed, combined with Salt Lake County's dependence on this resource, requires the greatest degree of care and caution when discussing infrastructure projects. In light of the obvious risks to the watershed posed by the proposed tunnels, these options should be rejected at the outset unless they are combined with specific, enforceable mitigation measures.

B. Widening the existing road in Big Cottonwood in order to build dedicated lanes for buses will unnecessarily degrade water quality, modify stream flow, and violate set back provisions. The dedicated lanes will not reduce traffic but will increase it in the Canyons.

Road expansion in Big Cottonwood Canyon could cause degradation to the environmental by infringing on the riparian corridor and harming important habitat. Road expansion will cause increased erosion and pollution problems in the watershed. Although the increased road capacity will allow more buses, it will not reduce existing traffic-related impacts to the watershed. Instead, the widened road will simply allow more vehicles in the canyon thereby increasing already identified environmental harms associated with widespread private vehicle use in the canyons.

A wider road in Big Cottonwood Canyon will have very similar effects as those of the proposed rail line in Little Cottonwood Canyon. The road in Big Cottonwood Canyon is already very close to the canyon stream. Expansion will affect riparian vegetation, destabilize stream banks, increase erosion, and will likely alter stream flow.

Roads transport pollution (like spilled oil and other leaking fluids, trash, and other traffic-related waste problems) to streams through storm water runoff. A larger road and increased traffic is likely to lead to increased pollution transport. Whereas a rail line only has a few electric trains on the track, a road will have thousands of gas powered cars and hundreds of buses constantly going up and down the road.

³⁰ Water Quality Stewardship Plan, Section 4-9-7 (describing results of study).

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Settled exhaust emissions, leaking fluids and all manner of waste will easily drain off of the road into waterways.

A wider road does not eliminate, or even reduce the traffic problem. Instead, it is designed to allow more vehicles in the canyon. In other words, widening the road to add a dedicated bus lane will increase, rather than reduce, traffic in the canyon. Although there is evidence to show that Bus Rapid Transit is more attractive than normal buses, there is no evidence to show that dedicated bus lanes, without concurrent measures to reduce or eliminate private vehicle use, would lead to significant reduction of traffic in the canyons. As proposed, there is no incentive for people to use the bus instead of their private vehicles. Consequently, the current proposal will not reduce any of the existing environmental impacts associated with the current transportation system. Instead, it will exacerbate the problems associated with traffic and create additional problems created by the construction of the widened road (like destruction of riparian vegetation, increased erosion and sediment transport, and altered slope grades). Additionally, as will be discussed in more detail in Section IV, the effectiveness of Bus Rapid Transit in Big Cottonwood Canyon depends on integration with the current transportation system, which is not included or contemplated in the current proposal.

Assuming that the purpose of the transportation system is to efficiently transport large numbers of people up the canyon and reduce the current traffic problems, other feasible options exist that could be easily implemented without exacerbating environmental problems. For example, prohibiting or seriously restricting private vehicle use in Big Cottonwood Canyon, and implementing a shuttle system could achieve the same result without negative environmental impacts associated with widening the road (See Section IV for more details). Because it is obvious that the current proposal will exacerbate, instead of reduce problems associated with vehicle use in the canyons (like excessive emissions, storm water runoff, public safety risks, and decreased recreational experiences), the option of widening the road to implement a Bus Rapid Transit system should be rejected at the outset. Instead, the proposal should focus on maximizing the value of the existing infrastructure by dramatically reducing private vehicle use, implementing a shuttle or Bus Rapid Transit system on the current road, and integrating the canyon bus system into the transportation system throughout the valley.

C. Aerial lifts will impair the watershed, threaten water quality, affect forest health and wildlife habitat, and degrade the visual attractiveness of the canyon.

Proposals incorporating aerial lifts to connect parts of Big and Little Cottonwood Canyons to Park City are very likely to be detrimental to the Wasatch environment and should be rejected as inconsistent with existing laws and management priorities discussed in Section III. The aerial lifts would be detrimental to critical habitats and wildlife corridors, cause erosion and flooding problems, damage to the watershed and negatively impact the visual attractiveness of the mountains. As discussed in Section IV, aerial lifts are not transportation solutions, but are merely a tourist attraction for ski resorts. The proposed lifts lack the characteristics of effective aerial lift transportation solutions utilized in other

areas. Due to the negative environmental impacts, combined with the non-viability as a mode of transportation, aerial lifts should not be considered further.

i. The proposed aerial lifts will require extensive grading and clearing which will impair the watershed landscape.

Construction and operation of aerial lifts and tower access roads will require extensive grading, maintenance road creation, and deforestation. These activities will cause negative environmental impacts. One study regarding the White River National Forest in Colorado stated that machine grading slopes removes top soil and inhibits revegetation. The lack of vegetation adversely affects infiltration; increases flooding and erosion; and can alter in-stream flow. ³¹ Negative impacts from removing vegetation will last for years and may not be subject to mitigation. Many of the species in the Wasatch are sensitive and unique. As the General Plan for the Town of Alta recognized, vegetation grows slowly in the alpine environment. Changes in top soil could dramatically inhibit successful growth of native species. Therefore, the effects associated with building an aerial lift system are likely to result in poorer downstream water quality.

ii. The new aerial lifts and accompanying increase in snow making will alter the watershed and aquatic habitats in the Canyons.

The Draft Blueprint proposes more rights for snow making at the ski resorts, and it is unclear whether the increased snowmaking would occur along the new aerial lifts. According to the White Rivers study, snowmaking does impact the quantity of flow in the river. Changes in the quantity of water can harm in-stream species as well as surrounding habitat. The Draft Blueprint gives no indication whatsoever as to the effects that the expanded snow making will have on watershed, yet it is critical to know what kind of impact this proposal will have before it is approved. Any infrastructure plans need to adequately consider the changes in watershed as a result of snow making.

iii. The new aerial lifts will result in deforestation, habitat fragmentation and disrupted wildlife migration.

Aerial lifts will lead to deforestation and habitat fragmentation. The Transportation System's Draft White Paper stated that current plans could require as many as 17 towers at over 200 feet tall.³³ The towers will require access, grading and maintenance roads. These roads could clear and fragment forested areas and wetlands that serve as critical wildlife habitats. Although it is unclear how much impact this will have on habitats and wildlife, significant disturbance is inconsistent with existing laws and priorities (See Section III for more a more detailed discussion of existing legal standards).

³¹ David et al. *The impacts of ski slope development on stream channel morphology in the White River National Forest, Colorado, USA,* 103 Geomorphology 375, introduction (2009).

³² *Id.* at 5.

³³ Transportation White Paper at 42.

The US Forest Service generally prohibits deforestation and grading. Cutting, selling and removing timber is prohibited in most areas.³⁴ Where allowed, harvesting timber must be sustainable.³⁵ Many species depend on the forested areas as habitat and protection from predators. A study from 2002 examined the impact of ski resorts on habitat fragmentation, concluding that "Effects of mountain resorts may, however, be relatively severe in concentrated areas, especially for species that are restricted to fragile alpine habitats." According to the study, the nature of ski resorts maximizes fragmentation of a habitat.³⁶ Trails are meant to enhance visual isolation and provide a variety of trails. These trails spread all over the face of the mountain.³⁷ "The result is a landscape that is not fragmented randomly, but one in which habitat fragmentation is indeed maximized."³⁸

Another article examined the impact of ski resorts on native species. They used the black grouse as an indicator species for the rest of the ecosystem.³⁹ The authors concluded that winter sports and ski lift density was a principal determinant of the abundance of their test species in the Swiss Alps.⁴⁰ The ski lift density reduced vegetation and faunal species richness.⁴¹ Although this study was conducted in the Swiss Alps, it is relevant for the Wasatch Range and similar impacts should be expected. The Wasatch Range is a finite area with many resorts in a compact area. In fact, the Wasatch is much more compact than the Alps. Therefore, the effects observed in the Swiss Alps can be expected with equal or greater consequences here, particularly if new aerial lifts are constructed that connect the resorts and eliminate current wildlife corridors.

Aerial lifts could also cut off important migration routes. Many regional and migratory species use the Wasatch Range as habitat and migratory routes. Some of these species migrate almost the entire length of the Rocky Mountain Range. The proposed aerial lines run perpendicular to many of those migratory routes and could cut off important migratory routes, which could affect population dynamics. Depending on the effect, ecological systems throughout the entire Rocky Mountain Range could be negatively impacted. Even if accommodations were made to allow for some migratory paths, the infrastructure may bottleneck migration and increase the likelihood of danger to the species from human interference or other predators.

Finally, these known impacts will likely be further exacerbated due to the effects of climate change. As snow lines continue to be higher and higher in future years, alpine habitats and migratory species will see further restrictions on suitable geographic areas. Any man-made fragmentation, like a ski lift, will have increasingly negative effects on isolated species with shrinking habitat. It is better for the

³⁴ Wasatch Forest Plan at 3-2.

³⁵ *Id.* at 3-5.

³⁶ Strong et al., Effects of Mountain Resorts on Wildlife, 26 Vt. L. Rev. 689, 692-93 (Spring 2002).

³⁷ *Id*.

³⁸ Id

Patthey, et al., Impact of Outdoor Winter Sports on the Abundance of a Key Indicator Species of Alpine Ecosystems, 45 Journal of Applied Ecology 1704, 1708 (2008).

⁴⁰ *Id.* at 1704.

⁴¹ *Id.* at 1709.

achievement of wildlife and habitat conservation goals if ski resorts are kept within their current boundaries and prevented from increasing interconnectivity. Therefore, these negative impacts should be avoided when possible.

iv. The aerial lifts will damage opportunities for solitude and the scenic character of the canyons.

The new ski lifts (and rail) in the Draft Blueprint cannot be completed without violating the Mountain Accords goals of protecting solitude, naturalness, and other backcountry values of the canyons. The Mountain Accord Vision and Goals for the Recreation Systems Group commits to a recreation system that accommodates outdoor recreation while protecting solitude, naturalness, and other backcountry values. Similarly, the Environmental Systems Group commits to protecting and improving air quality for protection of public health, environmental health, and scenic visibility. The Transportation Systems Group of the Mountain Accord proposed that the transportation system supports the natural and intrinsic values of the Central Wasatch. Seventeen new towers at 200 feet each will almost certainly detract from the natural beauty and the solitary nature of the mountains. This kind of impact is inconsistent with the Vision and Metrics articulated during the Mountain Accord process and therefore should be avoided.

III. Due to the potential for significant and irreversible environmental harm, multiple existing laws and policies should not be disregarded during the planning process. Instead these laws should direct and guide the Mountain Accord as it determines which projects should be considered.

Due to the nature of the Mountain Accord process, only brainstorming sessions have taken place. There have been no in depth studies as to impacts of certain projects. Similarly, no transparent analysis of the comparative costs of proposals has occurred. Furthermore, the cumulative impacts of the various proposals have not been taken into account. However, many existing laws and policies require consideration of environmental impacts as integral or substantive criteria before approving projects. Consequently, it is premature to select a particular project, without thoroughly understanding its environmental impacts, how the impacts will interact with existing laws, whether there are feasible alternatives, and whether the impacts can effectively be mitigated. The Mountain Accord process should not commit to major projects without understanding environmental impacts or whether the project could comply with existing environmental laws.

Although the Mountain Accord is meant to shape and develop policy and law for the future use and enjoyment of the Wasatch Mountains, the extensive work done to safeguard key environmental

⁴⁴ Mountain Accord, *Vision, Goals, and Metrics,* 4 (August 25, 2014).

⁴²⁴² Mountain Accord, *Vision, Goals, and Metrics*, 6 (August 25, 2014).

⁴³ Id.

⁴⁵ Id at 5

⁴⁶ Transportation White Papers at 42.

resources should not be disregarded. Existing laws share a strong common theme of protecting the watershed and maintaining high quality drinking water. Existing laws seek to minimize, mitigate or eliminate anything that would threaten the watershed. They carefully regulate major development, pollution, impacts to habitat and other invasive actions. The overall importance that existing laws place on protecting the environment should shape the Mountain Accord process and be further integrated into the theme of Mountain Accord's decision. The Mountain Accord should pay close attention to the many local, regional, state and federal laws regarding the Wasatch Mountains and seek to foster more legal protections for the Wasatch's natural environment.

As the Mountain Accord process moves forward, environmental protections should not be set aside, and an analysis of environmental impacts should not be postponed. Instead, a detailed analysis of the environmental impacts associated with each proposal should inform the selection process along the way. Additionally, the Mountain Accord process should not select any proposals that have obvious environmental impacts that are contrary to existing environmental policies or protections. If projects are selected without considering current environmental protections, procedural momentum could move these projects forward, even though existing law may not have allowed them to proceed. Such a result would be a step backwards, rather than forward, in protecting and improving the integrity of the unique and finite landscape in the Wasatch. Mountain Accord should follow the general themes of existing laws as it implements projects and proposes changes to laws. It should seek to foster stronger environmental protections. The following discussion identifies some laws, priorities, procedures, and plans that should be considered before selecting proposals for more detailed analysis.

A. Salt Lake County developed a comprehensive Water Quality Stewardship Plan that recognizes and synthesizes a network of existing laws, management plans, and recommendations to ensure excellent water quality now and in the future.

Proper management of the Wasatch is integral to ensuring the continued provision of clean drinking water to the Wasatch Front. The Wasatch Mountains provide water supply, habitat, recreational, and aesthetic resources in Salt Lake County. Twenty six percent of the water supply for Salt Lake County comes from streams that originate in the Wasatch Mountains.⁴⁷ Fifty to sixty percent of Salt Lake City relies on the Wasatch for its culinary water. A variety of interlocking state and federal laws protect the chemical, biological, and physical integrity of these streams.⁴⁸

Consistent with Section 208 of the Clean Water Act,⁴⁹ Salt Lake County developed an Area-Wide Water Quality Management Plan in 1978 that proposed "implementable solutions to area-wide water quality

⁴⁷ Water Quality Stewardship Plan, §4.9.1.

⁴⁸ *Id.* Section 3.4 (identifying federal, state, and local authorities with jurisdiction and management responsibility over issues that affect water supply, watershed health, and water quality).

⁴⁹ 33 U.S.C. § 1288. Section 208 requires states to create area-wide waste treatment plans. These plans coordinate efforts with the federal, state and local authorities to identify areas that have substantial water quality

and pollution problems from both point and non-point sources."⁵⁰ In 2006, the Salt Lake County Council allocated funds to initiate a three year process to update the 1978 plan and bring it into compliance with EPA's published guidance for Watershed Plans.⁵¹ The updated Water Quality Stewardship Plan was finalized in 2009. It has the force of law, as well as persuasive authority derived from its informed and collaborative creation. Accordingly, proposals that are inconsistent with the Water Quality Stewardship Plan should not move forward.

The purpose of the Water Quality Stewardship Plan is to "provide a framework of goals and policies that will forge water quality stewardship consistent with Congressional, State and local agency goals and represent the needs of the population in Salt Lake County."⁵² The guiding principles of the Water Quality Stewardship Plan include "protection of the physical, biological, and chemical components of watershed health."⁵³ To develop and implement the plan, Salt Lake County established three universal goals: "(1) provide for high quality waters that support the nationwide goals of 'fishable' and 'swimmable'; (2) provide leadership and facilitate implementation and coordination of water quality projects with stakeholders; and (3) develop a dynamic plan and process, with stakeholder support, that will guide Salt Lake County's water quality improvement efforts."⁵⁴ The Water Quality Stewardship Plan incorporated the best available science and data, taking into account existing conditions and projected growth.⁵⁵ Rather than the traditional focus on water chemistry and pollutant loads, the plan adopted a more holistic approach to watershed health that recognized the connection between riparian health, bank stability, and biological communities.⁵⁶

A healthy watershed provides four major functions to the local population: water quality; habitat; hydrology; and social/recreational services.⁵⁷ To protect and improve these functions, the Water Quality Stewardship Plan identifies seven strategic targets,⁵⁸ four of which apply directly to the proposals being considered during the Mountain Accord Process. Those four are described in more detail below:

(1) <u>Water Quality</u>: Reduction of pollutant loads is "at the heart of watershed planning in Salt Lake County." Pollutant loads are reduced through storm water, nonpoint source management,

control problems. 33 U.S.C. § 1288(a)(2). The plan must include provisions to establish a program regulating any modification or construction of facilities which may result in a discharge. *Id.* at § 1288(b)(2)(C)(ii).

⁵⁰ Water Quality Stewardship Plan, § 1.1.

⁵¹ See Handbook for Developing Watershed Plans to Restore and Protect Our Waters, (EPA 2006).

⁵² Water Quality Stewardship Plan, § 1.6.

⁵³ *Id*. § 1.7.

⁵⁴ Id

⁵⁵ See, e.g., Id. Section 1.8 (identifying relevant studies, including the finalized Total Maximum Daily Load study for Little Cottonwood Creek and the TMDL study identifying Big Cottonwood Creek as impaired); Section 3.5 (discussing projected population and development forecasts)

⁵⁶ *Id*. § 2.1.

⁵⁷ Id.

⁵⁸ *Id*. at § 2.2.

⁵⁹ *Id*. at § 2.2.1.

and water supply planning elements. 60 As discussed in more detail below, all of these planning elements apply to proposals being considered through the Mountain Accord process.

- (2) Wetlands and Stream Bank Protection: Improvement and protection of wetlands and stream bank stability prevents degradation of water quality, habitat, and hydrologic functions from erosion and sediment transport. 61 Wetlands and stream geomorphology, particularly the integrity of stream corridors and riparian habitats, have significant impacts on water quality, habitat, and the hydrological functions of a watershed. 62 As discussed in more detail below, several of the proposals being considered through the Mountain Accord process, in particular some of the transportation alternatives, could have significant impacts on wetlands and stream bank stability. Proposals with negative impacts to wetlands or riparian areas, in particular stream geomorphology and stream bank stability, should be rejected at the outset as inconsistent with the Water Quality Stewardship Plan.
- (3) Stream Corridor and Watershed Recharge Preservation: The Water Quality Stewardship Plan prioritizes increasing stream corridor and watershed recharge area preservation and the improvement of habitat, social, recreational, and water use functions. ⁶³ This target cannot be achieved without careful management decisions in the Wasatch, which is the headwaters and the recharge area for a large percentage of the drinking water supply to Salt Lake County. Mountain Accord proposals that would not facilitate the plan's goal of improving protections for stream corridors and watershed recharge areas should not move forward. For example, transportation plans that invade the setback provisions protecting the stream corridors for Big and Little Cottonwood streams should be rejected as inconsistent with existing protections and contrary to the plan's goal of *increasing* stream corridor protection.
- (4) Instream Flows: Increasing instream flows under normal and drought conditions to support aquatic habitat and recreational functions is another target of the Water Quality Stewardship Plan.⁶⁴ Several proposals being considered through the Mountain Accord process, like expanded snowmaking opportunities, development within the riparian corridor associated with some transportation options, and increased water usage accompanying expanded development, may affect instream flows. Proposals that would decrease or divert existing instream flows should be rejected as inconsistent with the Water Quality Stewardship Plan.

⁶⁰ *Id*.

⁶¹ *Id*. at § 2.2.4.

⁶² Id.

⁶³ *Id*. at §2.2.5.

⁶⁴ Id. at §2.2.6.

Section 208 of the Clean Water Act prohibits the issuance of a point source discharge permit that is inconsistent with an approved watershed management plan.⁶⁵ Any proposal in the Mountain Accord process that is obviously inconsistent with the Water Quality Stewardship Plan and would require a discharge permit, would be inconsistent with existing law and should not move forward.

B. Local municipalities in the Wasatch Range participate in regional water quality plans and have local regulations that protect the environmental integrity of the watershed.

Proposals that move forward from the initial brainstorming phase should be reconciled with the laws of several cities that share jurisdiction over the Canyons. Salt Lake City, Sandy City and the Town of Alta all have jurisdiction over large sections of the Wasatch Range. All three communities prioritize water quality and environmental protection through laws that limit impacts to their water sources.

i. Salt Lake City has jurisdiction over large sections of the watershed and has many laws to protect the watershed corridor including prohibiting any nuisance in the watershed.

Salt Lake City has legal authority to exercise extra-jurisdictional authority over the watershed. According to Utah Code Section 10-8-15, the City has jurisdiction of the waters 15 miles up from the point where the water is taken, with a 600 foot wide corridor. At a minimum, this provision gives Salt Lake City jurisdiction over large parts of the stream corridors for Big and Little Cottonwood Creeks. Salt Lake City's ordinances recognize that "Canyon waters are extremely valuable to the city because they are the city's closest high quality water supplies; water from canyon streams can be delivered to most city customers by gravity flow without pumping." In other words, the stream flows of Big and Little Cottonwood Canyon are central to the quality of life in the Salt Lake Valley, particularly in light of anticipated population growth. Mountain Accord proposals that threaten to degrade the high quality water supply from Big or Little Cottonwood Creek should not move forward.

To protect its water supply, Salt Lake City passed ordinances prohibiting the pollution of the canyon waters. ⁶⁷ It is prohibited for a person to bathe, swim or wash clothes, or other objects within the watershed. ⁶⁸ Depositing garbage is prohibited within the watershed. ⁶⁹ Finally, it is unlawful to create a nuisance in the watershed. ⁷⁰ Consistent with these ordinances, the Salt Lake City policy for the watershed (under the Watershed Management Plan) is that "Salt Lake City will evaluate development proposals and other activities in the canyons in light of the cumulative impact of such development or activities on water quality and the watershed. To the extent that . . . a proposed development or

⁶⁶ Salt Lake City Ord. § 17.04.020.

⁶⁵ 33. U.S.C. §1288(e).

⁶⁷ Salt Lake City Ord. § 17.04.320 et seq.

⁶⁸ *Id.* §17.04.330.

⁶⁹ *Id.* §17.04.370.

⁷⁰ *Id.* §17.04.310.

activity, either individually or collectively, poses an actual or potential impact to the watershed or water quality, Salt Lake City will either oppose or seek to modify, manage, control, regulate, or otherwise influence such proposed development or activity so as to eliminate or mitigate potential impacts."⁷¹ The plan also recognizes that land exchanges can either be beneficial or harmful to the watershed. Specifically, land exchanges that fragment protected landscapes or introduce new development have the potential to degrade watershed protection. In contrast, land exchanges that increase the amount of public watershed lands should be encouraged.⁷² The Mountain Accord process should take these ordinances and management plan priorities into consideration, and reject proposals that would be contrary to Salt Lake City's regulations or management priorities. As discussed above, some of the transportation options, like building the rail line along the riparian corridor in Little Cottonwood Canyon, tunneling between canyons, and expanding the road in Big Cottonwood Canyon, obvious environmental consequences that have the potential to degrade the watershed. These proposals would be contrary to Salt Lake City's ordinances and policies and should not move forward without clearly identified and enforceable mitigation measures that will eliminate the potential harm to the watershed posed by the cumulative effect of these projects.

> ii. Sandy City prioritizes thoughtful development that retains the integrity of the watershed, protects water quality, and preserves recreational opportunities.

Sandy City also has extra-jurisdictional authority over watershed areas.⁷³ Within its city boundaries, Sandy has adopted drinking water source protection ordinances that have been codified in the Sandy City Land Development Code. 74 Their purpose and intent is to "protect, preserve, and maintain existing and potential public drinking water sources in order to safeguard the public health, safety, and welfare of City residents and visitors."⁷⁵

Sandy City also adopted a Watershed Management Plan in 2002 that articulates the City's watershed management objectives and clarifies that "[d]ue to the City's extraterritorial jurisdiction rights to protect its watershed resources, watershed management ordinances adopted by the City apply to all areas within the City's identified watershed boundaries."⁷⁶ Sandy City's plan prioritizes the protection of watershed resources and recognizes that watershed protection depends on thoughtful land use management. One objective of the Sandy City Watershed Plan is to "ensure that development occurring within the watershed does not adversely impact watershed resources or water quality."⁷⁷ Accordingly.

⁷¹ Salt Lake City Dept. of Public Utilities, Salt Lake City Watershed Management Plan, xivii (1999).

⁷³ Utah Code Ann. § 10-8-15.

⁷⁴ Sandy City Land Development Code § 15A-17-01 et seq.

⁷⁵ *Id*. § 15A-17-02.

⁷⁶ Sandy City Watershed Management Plan 2002: Recommendations [hereinafter Sandy Watershed Plan], 13 available at

http://sandy.utah.gov/fileadmin/downloads/comm dev/planning and zoning/long range planning/area master _plans/BC_Appendix.pdf. ⁷⁷ *Id*.

Sandy City also restricts development within the "Sensitive Area Overlay Zone." Recommendations for achieving this objective include development setbacks for water feature and wetlands, a 30% slope development restriction, and extraterritorial enforcement of the City's Sensitive Area Overlay Zone, and critical evaluation of all proposals that may attract new user groups or large numbers of individuals. ⁷⁹

Further ordinances and standards help to minimize flooding, erosion, and to protect the natural scenic character of the sensitive areas. Sandy City regulates: storm water runoff and erosion through minimal removal of natural vegetation; preservation of natural features, wildlife habitat, and open space, preservation of public access to mountain areas and natural drainage channels, aretention of natural features such as drainage channels, streams, hillside areas, ridge lines, rock outcroppings, vistas, trees, and other natural plant formations; preservation and enhancement of visual and environmental quality by use of natural vegetation, minimization of grading in hillside areas, and a transportation system designed to minimize cuts, fills, or other visible scars. Every property and business owner has the responsibility to conform and comply with the protective provisions in the code.

The Sandy Watershed Management Plan recognizes that recreational opportunities, including trail networks, should be accommodated, so long as those opportunities do not compromise water quality. ⁸⁷ Consistent with the foregoing, Sandy City developed specific recommendations for Little Cottonwood that prioritize protection of water quality in relation to management and maintenance of canyon roads, expansion of ski areas, land acquisition and expanded development projects, and building permits. ⁸⁸ The Plan also recognizes that spring runoff from the Wasatch Mountains poses a significant risk of flooding, particularly in years where the springtime temperatures increase rapidly, rather than gradually. ⁸⁹ The dense, mature vegetation along the riparian corridors help control the flooding. Mountain Accord proposals that will exacerbate the risk of flooding through removal of mature vegetation and degrade water quality during spring runoff and other storm events by increasing erosion and sedimentation should be rejected.

In light of Sandy City's extra-territorial jurisdiction, and the consistent prioritization of watershed management to protect and preserve water quality, it does not make sense to allow proposals that pose a risk of degrading water quality to move forward beyond the brainstorming phase. It is especially

⁸¹ *Id.* § 15A-15-01(A).

⁷⁸ Sandy City Land Development Code *Id*. § 15A-15-01 et seg.

⁷⁹ *Id.* at 14 (Recommendations 2-5).

⁸⁰ *Id*. § 15A-15-01.

⁸² *Id*. § 15A-15-01(C).

⁸³ *Id.* § 15A-15-01(D).

⁸⁴ *Id*. § 15A-15-01(E).

⁸⁵ *Id*. § 15A-15-01(F) & (G)

⁸⁶ *Id*. § 15A-17-01(B).

⁸⁷ *Id*. at 15-23.

⁸⁸ *Id*. At

⁸⁹ *Id*. at 26.

important for all transportation alignment options to be evaluated within the framework of Sandy City's regulations.

iii. The Town of Alta's regulations and ordinances recognize Alta's unique role as steward for the headwaters of part of the watershed and focus on preserving the unique natural resources intrinsic to the setting including wetlands, vegetation, visual beauty, and open space.

Alta receives the highest precipitation of any similar area in the state and has extensive wetland areas. ⁹⁰ These unique characteristics make Alta very important to the general ecological health of the Wasatch Mountains. The Town of Alta developed a General Plan in 2005. The Plan's objectives are to be a long term, comprehensive plan to management and conservation of land and water resources. ⁹¹ The Town of Alta's General Plan recognizes that "the 'Alta Experience' will not be preserved by our best wishes, but by good planning diligently implemented." ⁹² Specific policies to protect Alta's unique setting include the following:

- 1. No net loss of wetlands;
- 2. Acquisition of vacant and undeveloped privately owned lands in Albian basin for conservation, open space, and recreational purposes;
- 3. Development of land over 20% slope should be carefully reviewed;
- 4. Development of land over 30% slope should be prohibited;
- 5. Removal of trees and other vegetation should be carefully considered;
- 6. The view of major natural features should be protected; and
- 7. Open spaces should be preserved and maintained.

The plan ties Alta's water quality and conservation efforts to those of Salt Lake City and Sandy City. It commits the Town of Alta to supporting and enforcing the policies, regulations, and plans of Salt Lake City, the Salt Lake Valley Health Department, the State Health Department, the U.S. Forest Service and other agencies. In relation to wetlands, Alta's General Plan requires strict compliance with the Clean Water Act and the National Environmental Policy Act in order to protect wetlands within the town's jurisdiction. Mountain Accord proposals that could affect the health and resilience of wetlands, including expanded development opportunities, and proposals to create connective tunnels, should not move forward for detailed analysis if they are inconsistent with these priorities and restrictions.

The plan calls for strict enforcement of existing ordinances and regulations regarding slope, soil erosion, and soil stability in order to protect the watershed, wetlands, visual impacts, and the environment in

⁹⁰ Town of Alta, *Town of Alta General Plan,* 1 (November 2005).

⁹¹ *Id.* at 4 (Section 3.1).

⁹² Town of Alta, *Town of Alta General Plan*, 4, November 2005.

⁹³ *Id.* at 5 (Section 3.2).

general.⁹⁴ The plan recognizes that trees retain snow, water, and topsoil, making them a critical component in managing the watershed.⁹⁵ Because trees grow slowly at high altitude, preservation of existing vegetation and revegetation of existing scarred areas is recommended.⁹⁶ Finally, the Plan prioritizes protection of the scenic quality of Alta, including "the proliferation of wild flowers, stately conifers, and lovely meadows."⁹⁷ "The vistas of this exquisite mountain community should not be compromised by unplanned development."⁹⁸ Mountain Accord proposals, like the proposed aerial lifts, that exacerbate soil erosion; violate slope restrictions; eliminate existing vegetation; or compromise the scenic quality of Alta's wildflowers, conifers, meadows, and mountain landscapes should not move beyond the brainstorming phase.

C. State law restricts activities that will degrade the watershed landscape or impair water quality.

Several Utah State laws impose restrictions and standards to protect the watershed and natural environment in the Wasatch Region. These laws potentially prohibit many of the Mountain Accord proposals like: expanding the development footprint at the resorts, building connecting tunnels or aerial lifts, and expanding transportation corridors within Big or Little Cottonwood Canyon. These projects need to be considered within the framework of existing State laws. If compliance with existing laws is not possible, the proposal should not move beyond the Draft Blueprint.

i. TMDLs

Consistent with the Federal Clean Water Act, Utah has established a Total Maximum Daily Loads (TMDL) plan for Little Cottonwood Creek which seeks to improve its water quality by managing point and non-point sources within the watershed.⁹⁹ The TMDLs establish strict requirements as to what pollutants and in what quantities are permitted in the creek at any given time. Any interaction with the stream that may cause the creek to exceed TMDLs would not be allowed. The State monitors the creek's pollutant levels and regulates accordingly. Development and transportation projects that are likely to threaten the TMDL of Little Cottonwood Creek should not be considered beyond the Blueprint.

ii. Safe Drinking Water Act

The Safe Drinking Water Act sets standards for maximum contaminant levels in public water systems. The Act also protects watersheds and water sources used for public water systems. The

⁹⁴ *Id* at 6-7 (Section 3.3).

⁹⁵ *Id.* at 8 (Section 3.5).

⁹⁶ Id

⁹⁷ *Id.* at 9 (Section 3.6).

⁹⁸ Id

⁹⁹ See 33 U.S.C. §1313(d); R317-1-7.17.

¹⁰⁰ Utah Code Ann. § 19-4-104(1)(a)(i).

¹⁰¹ *Id.* at (iv).

Drinking Water Board has the power to set drinking water standards and monitor drinking water quality. The standards are extensive and cover inorganic material, pesticides, volatile organic compounds and others. Violation of these standards can lead to financial and criminal penalties. Since many of the Draft Blueprint projects are within the watershed used for drinking water, no project may cause a violation of established drinking water standards. Projects should be evaluated and considered in the light of the kinds of impacts that they are likely to have on drinking water. If the proposal would cause a violation of state standards, the project should not be considered.

iii. Water Quality Act

The Water Quality Act prevents the discharge of pollution into the waters of the state without a permit and prohibits a discharge that may constitute a menace to public health and welfare. Under the Act, the Board is charged with developing prevention, control and abatement measures for new and existing causes of pollution of the waters of the state, water quality standards and establishes long term planning processes for pollution control. Any Mountain Accord project that cannot meet the long term goals and the water quality standards of the Water Quality Board should not be considered beyond the Draft Blueprint.

D. The United States Forest Service has a comprehensive plan must be considered when deciding which projects move on to the next stage of development.

The United States Forest Service (USFS) has a Revised Forest Plan for Wasatch-Cache National Forest produced in February 2003. 109 Versions of this plan have been in place for over 15 years. 110 The Forest Plan is designed by the USFS to guide all natural resource management activities and it describes the agency's desired future conditions and goals for the forest. 111 Under their Revised Forest Plan for Wasatch-Cache National Forest, the Forest Service prioritizes restoration of watershed health. 112 The plan establishes three requirements for a healthy watershed: maintain the integrity of water systems and soil quality; meet the needs of terrestrial and aquatic ecosystems; and supply values for people like drinking water, recreation and commodities that do not compromise watershed health. 113 Additionally, the plan addresses the following issues, among others: the impacts to biodiversity and viability,

¹⁰² Utah Code Ann. §19-4-104(1)(a)(i). ¹⁰³ Id

¹⁰⁴ Utah Code Ann. §19-4-109(2)(a).

¹⁰⁵ Utah Code Ann. § 19-5-107(1)(a).

¹⁰⁶ *Id.* at 104(3)(a).

¹⁰⁷ *Id.* at (3)(b).

¹⁰⁸ *Id.* at (3)(c).

¹⁰⁹ Wasatch Forest Plan, 1-1.

¹¹⁰ *Id.* at 1-1.

¹¹¹ Id.

¹¹² Id.

¹¹³ *Id.* at 2-2.

conserving diversity,¹¹⁴ the impacts from roads and trails,¹¹⁵ recreational uses,¹¹⁶ specially designated areas,¹¹⁷ maintaining wilderness and roadless areas,¹¹⁸ and timber extraction.¹¹⁹ Of particular note are a few provisions: the ski resorts are to stay within their current boundaries.¹²⁰ Changes to the boundaries are only allowed if for minor administrative reasons and not for recreational expansion.¹²¹ Additionally, timber harvesting is strictly regulated. Deforestation to accommodate lift lines should be considered within these restrictions. The Mountain Accord process should ensure that all projects that move forward will abide by the rules and guidelines of the Forest Service.

E. Mountain Accord's own goals seek to protect a natural and resilient ecosystem for future generations.

In addition to multiple legal protections, Mountain Accord has set significant environmental goals which should be heeded. The Environment Systems Group of the Mountain Accord envisions a Central Wasatch that supports a healthy, functional, and resilient ecosystem capable of serving current and future generations. The Environmental Systems Group established a goal to protect, maintain and improve watershed health, water supply, and water quality. In addition to the many controlling laws and organizational plans, Mountain Accord needs to pay particular attention to its own environmental goals and not allow projects which threaten the environment to be considered any further than the Draft Blueprints.

IV. The Blueprint's transportation options inexplicably disregard feasible, efficient, and inexpensive transportation options that could be designed to serve the entire Salt Lake Valley, and instead focus on inefficient and environmentally detrimental options that only serve a small segment of the population.

The Draft Blueprint's proposed projects are not the best transportation solutions. The projects are not well-integrated into the current transportation system and do not help expand public transportation to meet future needs. The proposed projects call for too much new construction, without considering whether existing infrastructure can be used more efficiently to serve the goals of the Mountain Accord. The Blueprint should explore transportation options that are better connected to urban Wasatch Front and do not require as much new infrastructure, like restricting the use of private vehicles in the canyon and implementing an efficient bus or shuttle system. If the Mountain Accord is serious

¹¹⁴ *Id.* at 2-6.

¹¹⁵ *Id.* at 2-10.

¹¹⁶ *Id.* at 2-12.

¹¹⁷ *Id.* at 2-16.

¹¹⁸ *Id.* at 2-17.

¹¹⁹ *Id.* at 2-19.

¹²⁰ *Id.* at 4-161.

¹²¹ Id at 4-49

¹²² Mountain Accord, *Vision, Goals, and Metrics,* 4 (August 25, 2014).

¹²³ Id.

about providing an economical, unique, attractive and efficient transportation system, then it should consider new ideas like the Zion Canyon shuttle.

A. The proposed rail lines are not an efficient use of public transportation resources because they are expensive, inefficient, disconnected from critical urban hubs, and poorly integrated into the whole transportation system. More efficient solutions should be considered.

The proposed rail is too expensive and does not efficiently meet the economic, transportation and recreation goals for the Mountain Accord. The projects require a lot of infrastructure and are not sufficiently integrated into the rest of the transportation systems in the Wasatch Range. A rail line should not be considered unless it can efficiently meet all of the goals of the Mountain Accord.

The Economy System Group proposes to achieve broadly shared economic growth, high-quality development and high-value transportation infrastructure that is attractive, sustainable, and provides opportunity for visitors and residents. The Transportation System Group's vision calls for a system that is integrated within the fabric of community values and lifestyle choices, supports land use objectives, and connects to the overall regional network. The group also envisioned a system that would meet growing demand for access to and within the Central Wasatch Mountains through a dynamic and sustainable multi-modal mountain transportation system. The group envisioned a system that was year-round, safe, efficient, and compatible with environmental characteristics. The Transportation System Group outlined the following goals: (1) provide integrated multimodal transportation choices for residents, visitors, and employees, (2) provide reliable transportation that facilitates a positive experience, (3) ensure the transportation experience is safe and promotes health, (4) ensure that the transportation system supports the natural and intrinsic values of the Central Wasatch. As explained below, the rail line will not be able to meet these goals due to the lack of integration and because it caters to a small portion of the population.

The Draft Blueprint's proposed rail line is not well connected to the existing transportation system and does not address key transportation concerns in the region. The lack of integration leaves many of the Mountain Accord goals unmet by very expensive infrastructure projects. The Transportation System Draft White Papers indicate that rail lines will require large investments, many years, and several phases to complete. Unfortunately that investment will have limited utility and is designed with minimal connectivity. Based on the Draft Blueprint, rail lines through Little Cottonwood Canyon only provide transportation from Sandy to the Little Cottonwood resorts. This leaves major hubs like Salt Lake City, the Airport West Jordan, West Valley, Draper and Murray disconnected. For public transportation to be an attractive option for residents and visitors, the logistics of traveling with skis and bags must be

¹²⁴ Mountain Accord, *Vision, Goals and Metrics*, 3 (August 25, 2014).

¹²⁵ Id at 5

¹²⁶ Transportation White Paper at 5.

¹²⁷ Mountain Accord, *Proposed Blueprints*, 7-map (February 2015).

accommodated, which means minimizing transfers between transportation modes. The proposed rail line does not incorporate this type of foresight or planning for most users. Additionally, the rail line neglects transportation concerns within the Salt Lake Valley, especially in the southeast region. There are no rail lines or bus lines proposed along the south east corridor to connect Cottonwood Heights with other areas of the Salt Lake Valley. The lack of integration poses a threat that increased visitors and development will be less controlled than they ought to be and will result in undue pressures on the natural resources of the Wasatch. The Blueprint should focus on the potential for new rail lines or other forms of transportation on the south east side of the Salt Lake Valley that would provide a type of belt route for public transit. In summary, before adopting a multi-year, expensive, invasive infrastructure project to address existing transportation problems, the Mountain Accord process should engage in more planning to ensure that the new transportation system is effective and efficient and addresses the existing transportation problems within a reasonable timeframe, at a reasonable cost.

B. The proposed aerial lift system is not a good transportation system because it is not well integrated into the transportation system, does not serve major portions of the population including immobile populations and fails to connect important points of interest.

In addition to posing environmental risks, aerial lifts are not a viable transportation system. Instead, they are only a tourist attraction for ski resorts. The lifts neglect major transportation needs and do not solve the problems identified during the Mountain Accord process. Comparing the Mountain Accord proposal to successful aerial lift transportation systems throughout the world demonstrates that the lifts have little in common with successful transportation systems.

Several key organizations prioritize providing transportation options to the entire population and integrating the movement of people within the region. The UTA's mission statement is to strengthen and connect communities, enabling individuals to pursue a fuller life with greater ease and convenience. Their vision is for an integrated system of innovative, accessible and efficient public transportation services that increases access to opportunities and a healthy environment for *all people of the Wasatch region* (italics added). Mayor Becker has been an advocate for expanding Salt Lake City's mobility and transportation options. Under Sustainable Salt Lake Plan 2015, the City has the goal to develop "sustainable high performance transportation for robust economy and enhance quality of life by integrating transportation with the built environment." The Federal Transit Authority's role is to work with regional communities to plan, apply, execute and complete transit projects that enhance quality of life. Transportation systems are meant to serve large portions of the population and to be a viable option for many uses not just one or two special interests. In contrast to these goals, the aerial

¹²⁸ Utah Transit Authority, *UTA Mission Statement*. Available at http://www.rideuta.com/mc/?page=AboutUTA-MissionStatement.

¹²⁹ Utah Transit Authority, *UTA Vision Statement*. Available at http://www.rideuta.com/mc/?page=AboutUTA-MissionStatement.

¹³⁰ Salt Lake City Division of Sustainability, Sustainable Salt Lake 2015, 8 (2015).

lifts do not connect communities in a meaningful way. They serve a limited population for a discrete, expensive, recreational activity and do not integrate transportation with the built environment.

While it is possible for aerial lifts to be a viable transportation option, the proposed aerial lifts exhibit none of the characteristics of a good transportation solution. According to Jean Mercier, a good transportation system has five dimensions: land use, environment, transportation, health and equity. All of these dimensions should be taken into account when evaluating the social benefits of the transportation projects. ¹³¹ The characteristics of a successful system can be generally categorized into three overlapping characteristics: connecting residential areas, providing poor and immobile communities with a viable transportation option, and connecting major points of interest. ¹³²

 Good aerial lifts should connect major residential areas to points of interest. The Wasatch aerial lift will not do that because it is not well integrated into the overall structure of the current transportation system.

The proposed lifts connect almost no residential communities to points of interest such as recreation or employment. All the lifts do is connect two or three different ski resorts. Even indirectly, the lifts do a very poor job at reaching major residential areas. Compared to successful lift systems around the world, the proposed lifts in the Wasatch can only be described as a tourist attraction.

A good aerial lift, one that is more than just a tourist trap, will effectively connect residential areas to important areas. For example, the Roosevelt Island Tramway in New York; a lift system in Constantine, Algeria; an aerial lift in Medellin, Colombia; and a lift system in Rio de Janiero, all provide this service. The Roosevelt system was designed as the only means for transportation on and off the Roosevelt Island in New York. For many years the metro line did not extend to the island from Manhattan. When the island was redeveloped for low and middle income housing, the planners decided that the tramway was the only viable transportation option to get people from the island to Manhattan. Although it was designed to attract tourism, it was also designed to move large amounts of commuters. The system eventually became a great success. When the metro line eventually was extended to Roosevelt Island the tramway remained so popular that it was revitalized instead of removed. The system in Constantine, Algeria was built as a way to overcome major traffic congestion problems plaguing travel between the east and west banks of the city. The system is very popular among residents and moves some 10,000 people a day. The vehicle traffic from residential communities was greatly reduced by the

¹³¹ Jean Mercier, *Equity, Social Justice, And Sustainable Urban Transportation in the Twenty-First Century,* Universite Laval, Administrative Theory & Praxis, Vol. 31, No. 2, 148 (June 2009).

¹³² Baha Ashalalfah, Experiences with Aerial Ropeway Transportation Systems in the Urban Environment, Vol 140(1) J. Urban Plann. & Dev., 04013001-1 (2014).

¹³³ *Id.* at 04013001-5.

¹³⁴ Id.

¹³⁵ *Id*.

¹³⁶ *Id*.

¹³⁷ *Id*.

first line. The line was so successful that four more lines are planned to connect major urban and residential areas over rugged terrain in order to relieve traffic problems. The first proposed line is expected to serve a population of over 120,000 residents. ¹³⁸ In Medellin, Colombia, the city built an aerial system that connected poor suburbs to the center of town. The suburbs are built on steep hills full of underdeveloped neighborhoods. These neighborhoods are inaccessible by metro lines. ¹³⁹ Once built, the lines were a huge success almost immediately. ¹⁴⁰ This was not for their tourist appeal, but because they were a critical transportation element for a large, previously unserved population. As a result of the metro line, crime in the poor suburbs dropped significantly and employment has increased by 300%. ¹⁴¹ A similar story played out in Rio de Janiero, where new aerial lifts were built in preparation for the Olympics. ¹⁴² The terrain was similar to that in Medellin; inaccessible by conventional modes of transportation. The new aerial line allowed immobile populations to have access to the city centers. ¹⁴³ The new mobility was key in helping wrestle control of the favelas from drug cartels.

In contrast to these successful transportation options, the proposed lifts in the Wasatch are not directly or indirectly connected with major residential areas and are poorly integrated with the existing transportation network. The aerial line is only a tourist attraction with no consideration for integrating the system into the Salt Lake and Summit Counties' public transit needs. A few examples: there are no plans for significant transportation improvements in the south east of Salt Lake Valley and there are no meaningful plans to connect the west side of the Salt Lake valley to the canyons. The Blueprint does not anticipate how to move people from the cities to the aerial line without a car. The aerial lift is simply not designed to be an effective transportation system, and it should not move forward as a transportation option.

ii. The proposed Wasatch aerial lines do not connect major points of interest but only focus on ski resort interests.

The Wasatch aerial lines do not connect important economic, other recreational and residential hubs. This lack of consideration for the economic needs of the rest of the Wasatch region makes the aerial line an ineffective transportation option.

In the survey by Ashalalfah, there are several examples of aerial systems that are good at connecting major areas of interest. The Portland system connects a University and accompanying hospital on top of a steep hill to the rest of the city. The hospital serves more than 200,000 people. A tram in Hong

¹³⁸ Baha Ashalalfah, *Experiences with Aerial Ropeway Transportation Systems in the Urban Environment*, Vo. 140(1) J. Urban Plann. & Dev., 04013001-10 (2014).

¹³⁹ *Id.* at 04013001-8.

¹⁴⁰ Id

¹⁴¹ *Id.* at 04013001-8.

¹⁴² *Id.* at 04013001-9.

¹⁴³ Id

¹⁴⁴ Baha Ashalalfah et. al., *Experiences with Aerial Ropeway Transportation Systems in the Urban Environment*, Vol. 140(1) J. Urban Plann. Dev., 04013001-6 (2014).

Kong is used to connect an island to the main part of the city and then connects directly to major shopping centers and the airport. 146

The proposed aerial lines in the Blueprint do not share much in common with the above mentioned examples. Although, the proposed lines are marginally connected to shopping centers and the airport, it is hardly the kind of efficient and direct system found in Hong Kong. The Mountain Accord's lift system only connects a few ski resorts directly. Beyond that it is only marginally connected to only two or three economic hubs. The other 6 to 8 other important hubs are left neglected. While ski resorts are important destinations, they are not the same as hospitals, universities and airports which maintain steady flows of people throughout the year. Connecting two ski resorts together should not be characterized as a transportation system that connects communities. Because the aerial lifts do not connect communities or economic hubs in a meaningful way, they should not move forward as a transportation option.

C. The Mountain Accord should consider other options that are more integrated with the transportation system; that serve a wide variety of the population; that are more accessible; and that will not have such damaging impact on the canyons.

The Blueprint should reconsider transportation options in Parleys Canyon as an alternative to major infrastructure through Little or Big Cottonwood Canyons. Mountain Accord should also include a transportation option that utilizes a shuttle system up Mill Creek Canyon, Big Cottonwood Canyon and Little Cottonwood Canyon. The shuttle system has proved to be highly effective and popular at some of the most visited national parks in the country. The similarities between those parks and the Wasatch canyons make a shuttle a natural fit for the Wasatch.

 More substantial methods of public transportation should be considered through Parley's Canyon as an alternative to major infrastructure in Big or Little Cottonwood Canyons.

For the environmental reasons and integrative problems discussed above in Sections II and IV, the rail lines and aerial lines through Little Cottonwood Canyon do little to meet the goals of the Mountain Accord. Further, they fail to address the transportation problems through Parley's Canyon. Parley's Canyon is the main corridor for transportation at this time and moves many visitors, residents, employees and other commuters. A more substantial transportation option through Parley's Canyon is more likely to attract more ridership. Parley's Canyon is much wider than either Little or Big Cottonwood Canyons and would be much more conducive to larger infrastructure like a rail line. A rail through Parley's Canyon would be easier to integrate with current transportation systems. It would do much more to connect economic hubs and would appeal to a larger portion of the population. It is possible that a Parley's Canyon rail line could connect five to six economic hubs directly based on the

¹⁴⁵ *Id*.

¹⁴⁶ *Id.* at 04013001-9.

Blueprint's identified economic hubs. ¹⁴⁷ Finally a rail line in Parley's could serve a population beyond just recreationalists, but could help transport commuters on a daily basis, potentially reducing traffic-related air quality problems in Salt Lake Valley. Building large infrastructure in major transportation corridors would fit better with landscape level conservation and would help to concentrate negative impacts instead of spreading human activity into currently more pristine areas. Despite all of these desirable attributes, a rail line through Parley's Canyon was rejected without justification or explanation.

ii. Shuttle systems similar to those used in National Parks would be an excellent option for Mill Creek Canyon, Big Cottonwood Canyon and Little Cottonwood Canyon.

Mandatory and optional shuttle systems have been effective in reducing pollution, negative impacts to the surrounding environment, noise pollution and congestion in many national parks. Given the similarities between the significant natural resources and tendency for visitation between national parks and the Wasatch Mountains, a shuttle system through the canyons would be an excellent option to solve all of Mountain Accords main goals and vision.

Shuttle systems (both mandatory and optional) have been used in numerous national parks throughout the United States. Among these parks are: Denali, Yosemite, Acadia, Grand Canyon, Bryce Canyon and others. Although success rates vary among the shuttle systems, many have been quite successful. One in particular is the Zion shuttle system. The Zion's National Park shuttle is a mandatory shuttle system. Cars are not allowed on the road in the main part of the canyon: only shuttles operated by the Park. Zion National Park is a 6.5 mile canyon with breathtaking vistas throughout the park. There is one road going into the main canyon of the park and it is one lane each way. The road eventually dead ends at the Temple of Sinawava where there is a parking lot where vehicles can turn around to go back down the canyon. The shuttle system operates shuttles carrying up to 66 people at 10 to 15 minute intervals. The system has 30 buses and includes 15 stops along the 6.5 mile canyon. It is estimated that one bus replaces approximately 25 private vehicles in the canyon.

Before the mandatory shuttle the road was very congested and there were long wait times to get into key visitor attractions. Sound levels were high, air quality was impaired and there was significant damage to natural resources in the park as a result of the congestion. The mandatory shuttle system was instituted in 2000. The shuttle improved air quality—there was a 26 to 77 percent drop in carbon monoxide emissions in the park. Sound levels went down by 6 to 10 decibels. Congestion virtually

¹⁴⁷ Mountain Accord, *Proposed Blueprint*, 15 (Feb 2015).

¹⁴⁸ Britton Mace, et al., *Visitor Assessment of the Mandatory Alternative Transportation System at Zion National Park*, 52 Environmental Management 1272, 1273 (2013).

¹⁴⁹ *Id*.

¹⁵⁰ *Id*.

¹⁵¹ *Id*.

¹⁵² *Id.* at 1275.

¹⁵³ *Id.* at 1281.

¹⁵⁴ *Id*.

disappeared. For those who have been there before and after the shuttle, the overall tourist experience has not been negatively affected; instead, it has improved in many ways. 155

An article investigating the reasons for the success of the Zion shuttle system, provides several reasons why the system is successful in Zion and can be elsewhere. A shuttle system's effectiveness depends on several key variables: perception of freedom, cost, wait times, convenience, comfort, accessibility, frequency of buses and number of stops. 156 Any successful system has to have low wait times. 157 Additionally, a shuttle system's success depends on whether it is perceived as a mode of transportation or as a tourist attraction. ¹⁵⁸ For example, the Zion's system incorporates an audio tour for riders. ¹⁵⁹ A successful shuttle system will help visitors be more connected with the natural environment that they seek to visit. 160

According to the study, many people showed high levels of resistance to any mandatory shuttle system. 161 However, over time, visitors to the park were able to experience firsthand the benefits of the mandatory system. 162 When people realized that there were frequent stops and wait times no greater than fifteen minutes, most of the surveyed population's perception of their freedom of movement increased compared to before the shuttle system. 163 Visitors reported having very positive experiences with the system. Feelings of freedom of mobility, connection to the natural setting and comfort on the shuttle increased over time. 164

The article offers some advice for further improvements to the already successful Zion system. The article recommends clear topped shuttles for more site-seeing opportunities. ¹⁶⁵ Minimal wait times—no longer than 15 minutes—are critical. 166 Additionally, public education is important. The public needs to have ample access to information about the system so that they feel comfortable, can tailor their expectation, and lay their reservations aside. Information should be available at major commercial centers. Wait times should be posted at stops, and the system should be publicly promoted as a fast and efficient alternative to private travel with extra benefits that cannot come from private vehicles.

The Cottonwood Canyons are ideal locations for a mandatory shuttle system like that in Zion and other national parks. Both canyons are beautiful natural attractions that are not much longer than Zion Canyon. Like Zion Canyon, there are a large number of visitors every year. There is no through-travel in

¹⁵⁶ *Id.* at 1273-74.

¹⁵⁵ *Id.*

¹⁵⁷ Id.

¹⁵⁸ *Id.* at 1274.

¹⁵⁹ *Id.* at 1281.

¹⁶⁰ *Id.* at 1280.

¹⁶¹ *Id.* at 1274.

¹⁶² *Id*.

¹⁶³ Id.

¹⁶⁴ *Id.* at 1274.

¹⁶⁵ *Id.* at 1282.

¹⁶⁶ *Id.* at 1281.

either canyon (the top of the canyon is the final destination). Finally, as in Zion, there are significant problems with the current system of private vehicle use, including congestion, air quality, noise, parking, delays, and negative environmental impacts. Like Zion, most travel is recreational or geared toward the service industry. A shuttle system in the Cottonwood Canyons would meet all of the visions and goals for the Mountain Accord. It would be economical for large portions of the population, it would not require invasive infrastructure, it would protect the environment and it would provide a unique riding experience unlike any other area in the world outside of National Parks. The article analyzing the Zion shuttle experience indicates that as long as a shuttle in the Cottonwood Canyons is low cost, maintains a perception of freedom of movement, has low wait times and frequent bus stops it will work well. ¹⁶⁷

Implementing a shuttle system up the Cottonwood Canyons that is integrated to the existing public transportation system should be considered as a transportation solution evaluated during the Mountain Accord Process. The shuttle will meet critical economic goals to (1) grow year round destination-based travel, tourism, and recreation economy, (2) maximize financial resources available to reinvest in improving and protecting Central Wasatch assets, (3) Improve the quality of experience for residents and visitors, and (4) improve quality of life for residents. Like, the Zion shuttles, propane shuttles could be used. Even better, the new shuttles could be electric powered buses. This would reduce air emissions and congestion problems. Shuttles would also not be nearly as harmful to the riparian environment as the large volume of private vehicles expected up the canyons. Families and large groups usually carpool to Zion National Park whereas, vehicles up the Cottonwoods are often less full. If each Zion's shuttle take 25 private vehicles off the road, it is likely that each shuttle in the Cottonwoods would take at least 25 vehicles off the road. Because the shuttles would be the only vehicles in the canyons, there would be no need to widen the road or add rail or aerial lifts. This would automatically eliminate the most environmentally detrimental elements associated with the current transportation options, and it would still meet the transportation needs for the Canyons. Furthermore, eliminating private vehicles would free up space that is currently used for parking, and that space could be used for concentrated development. In general, a shuttle would be more in line with landscape-level conservation efforts because of the lower environmental impacts.

Beyond protecting the natural environment, the shuttle would truly connect visitors and residents to the beautiful landscape that we often miss as we drive along the Wasatch. Shuttles would get people out from behind the driver's seat and allow them to see the canyons. Shuttles with clear tops would provide another opportunity to enjoy the beauty of the canyons. Instead of getting into separate cars at the end of the day, visitors and locals could continue to socialize as they travel down the canyon, fostering a greater sense of community. If the shuttles run frequently enough; have enough stops; and are integrated into the existing transportation system, riders will be able to come and go with relative ease and speed. Finally, full integration with existing public transportation hubs throughout the valley will

¹⁶⁷ *Id.* at 1274.

¹⁶⁸ Mountain Accord, *Vision, Goals and Metrics*, 3 (August 25, 2014).

eliminate the need for large parking lots at the base of the canyon, because riders could pick up the shuttle at a variety of hubs throughout the city, thereby dispersing the impact associated with parking.

Recreation throughout the year would be best served by this system. Shuttles don't need the massive infrastructure investment that rail or aerial lifts need. This leaves the shuttle systems free to include more or less stops as needed. During the winter months, the shuttle could bypass many stations and go straight to the resorts. During the summer months, the shuttles could include many more stops at popular biking, climbing and hiking trailheads. This is much more appropriate than any rail or lift line because it accommodates all types of recreation and economic use not just ski resorts.

Shuttles do not have to be a perennial mandatory system. Mandatory shuttle use could be all-year or only part of the year depending on the congestion problems and which points of interests are receiving the most traffic at any given time. The lack of need for infrastructure makes it flexible enough to adjust over the years based on popularity and need. Shuttle stations can be added and removed with greater ease and the shuttle system could even operate on a bell system where riders can get on and off anywhere and not just designated stops. Or the system can be designed to only stop in designated areas in order to encourage more visitation to some areas and protect other areas that are threatened.

The shuttles can still serve as a unique tourist attraction for visitors and skiers and provide good modes of transportation. It can become seen as an integral part of the visiting experience to the Wasatch Mountains. The shuttles can be designed with interesting tour guide information, they can be outfitted to any level of luxury desired. The Zion study indicated that comfort is important factor and that many do not find the Zion's shuttles to be comfortable. Shuttles up the Cottonwoods can be designed to improve on comfort with sufficient space for recreational equipment, comfortable seats and great viewing opportunities. The shuttle would give a unique perspective on the canyons themselves since it is an opportunity to really see the canyons instead of focusing on the tailgate or the brake lights of the car next car. Mandatory shuttles would be faster than cars because they would be the only ones on the road. Accordingly, the shuttle system would serve the same purpose as the rail line in Little Cottonwood or the widened road in Big Cottonwood, at a fraction of the cost and with none of the associated environmental risks.

Shuttles are much more likely to be well integrated into current and future transit systems than a rail line or aerial lift. One of the interesting features of the Zion Canyon shuttle is that the shuttle does not start and stop just at the visitor center. The shuttle extends out beyond the Park itself into the surrounding communities. It uses parking lots of local businesses as pick-up stations, which helps the micro-economy of each stop. A system like this for Cottonwood Canyons would not only eliminate the need for large parking lots at the mouths of the canyons, it could conveniently connect major points of interest and integrate itself more fluidly with existing high speed transit. For example, the shuttle system could go all the way from the top of Little Cottonwood Canyon to the Sandy Trax line, the South Town Mall and the Front Runner station. Connection to the Blue Trax line and the Front Runner instantly connects many major economic hubs identified in the Blueprint, as well as major economic and

residential hubs in Davis, Weber and Utah Counties. As for access on the east side of Salt Lake County, the shuttle routes could overlap through the valley for convenient transfers.

Rail lines cannot provide any of these benefits as easily, cheaply or in such a short time. Rail lines would have to be built, right of way would have to be established in the cities and eminent domain/condemnation battles could delay the process. A shuttle system can use the existing roads and be put into action as soon as the shuttles are purchased. For these reasons, the Mountain Accord process should seriously analyze and consider a transportation option that involves a shuttle system in the Canyons; a method for eliminating or seriously discouraging private vehicle use; and a framework for integrating the shuttle with existing transportation infrastructure in the region.

V. The Mountain Accord should not dismiss viable alternatives without justification.

The Draft Blueprint rejects several proposals without explanation or justification. The Mountain Accord should justify why these options have been rejected. In particular, the Blueprint does not include better transportation for Parley's Canyon, even though that was a proposal in earlier stages of the Mountain Accord Process. Based on the Mountain Accord Charter, consensus-based decision-making is designed to build trust, encourage sharing information and provide for an environment for collaborative problem solving. Additionally, the communication principles include transparency, collaboration, productivity and efficiency. In the spirit of the charter, Mountain Accord should do more to explain the reasoning behind its decisions to continue with some projects and abandon others. According to the new Blueprint, many ideas have been rejected with no explanation. The Blueprint does not justify why a rail line through Parley's Canyon was rejected. The Blueprint does not explain why local buses are not appropriate for some of the canyons. The Blueprint makes no more mention of the proposed light rail line along Foothill and does not explain why this proposal was rejected.

VI. Conclusion

Save Our Canyons supports the Mountain Accord process and the possibility of developing and implementing landscape-level conservation plans that will protect the integrity of the watershed and preserve the recreational value of the Canyons for the future. Looking forward, there are several elements in the Draft Blueprint that should be altered in order to better serve the future of the Wasatch Region. Save Our Canyons reemphasizes the importance of providing strong, permanent conservation measures to protect vital environmental resources. This should include Land Exchanges that focus on consolidating publicly held lands, establishing permanent conservation measures and limiting mountain sprawl.

Some of the proposed projects in the Draft Blueprints will have significant and long lasting impacts on the Wasatch environment. The impacts associated with the proposed rail alignment, road expansion,

¹⁶⁹ Mountain Accord, *Mountain Accord Program Charter*, 8 (2014).

¹⁷⁰ *Id.* at 13.

and aerial lift projects are unacceptable and inconsistent with existing laws and policies. Of principle concern to Save Our Canyons is that the Blueprint and the Mountain Accord must be guided by protecting the watershed. The environmental benefit of a healthy watershed is precious and irreplaceable. Protecting water quality, and compliance with existing standards to preserve water quality, must be at the forefront of all planning decisions for the Mountain Accord. Additionally, natural beauty, scenic vistas, as well as opportunities for solitude and recreation have already been identified by the Mountain Accord Process and many stakeholders as values that should be protected. The many laws, plans, and policies in place to protect key watershed resources, minimize pollution, protect the national forest and reduce development should help guide the Mountain Accord process.

Save Our Canyons have serious concerns about the failure of proposed transportation systems to be adequately integrated into the transportation systems and needs of the Wasatch. The rail and aerial lines will not connect many urban hubs or residential areas and do not address congestion problems at the mouth of the Canyons. Aerial lifts do not truly address transportation problems nor do the lifts benefit the economy as a whole. They are not about transportation but more of a tourist attraction for a few ski resorts that will not be used widely on a year round basis or by local commuters. At their core, these projects are not designed for the greater good and needs of the vast majority of the population. In contrast, there are other, less expensive and invasive solutions that could address transportation problems in the Canyons, like closing the road to private vehicles and implementing a shuttle system. These options should be seriously explored as a viable transportation option as the Mountain Accord process moves forward.

Finally, Save Our Canyons looks forward to continuing to participate in the Mountain Accord process. It also appreciates the need for further comments and is pleased that Mountain Accord extended the comments deadline in order to elicit more opinions and information from the public. Please accept these comments. We hope that they prove useful and insightful in shaping the future of our precious and finite mountainous region.

Sincerely,

Carl Fisher