Recommendations for Targets and Indicators for the Aloha+ Challenge 2030 Goal
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Executive Summary

The Smart Sustainable Communities Roundtable brings together executives from across sectors who are committed to achieving economic prosperity, environmental stewardship and social well-being in Hawai‘i through collaboration on joint actions and initiatives. In 2015, Hawaiian Airlines, Conservation International and Hawai‘i Green Growth launched a process through the Roundtable to develop recommendations on Hawai‘i’s Aloha+ Challenge Smart Sustainable Communities 2030 goal as a pilot project.

The Aloha+ Challenge: He Nohona ‘Ae‘oia, A Culture of Sustainability is a statewide commitment launched by the Governor, four County Mayors, the Office of Hawaiian Affairs, Hawai‘i State Legislature and public-private sector partners in 2014. It identifies six ambitious sustainability goals to be achieved by 2030 in the areas of clean energy, local food, natural resource management, solid waste, smart sustainable communities, and green workforce and education. Hawai‘i’s Aloha+ Challenge aligns with the United Nations 2030 Agenda for Sustainable Development and Paris Climate Agreement, and has been recognized as a place-based model that can be scaled to support implementation of the global sustainability goals.

The Roundtable established a “Study Team” to provide research and analysis on potential targets and indicators that could track statewide progress and inform policy on the Aloha+ Smart Sustainable Communities goal. Over the course of a year, the Study Team convened regularly with technical experts to develop a conceptual framework defining Smart Sustainable Communities in the Hawai‘i context. The Roundtable convened quarterly to review progress and identify priority areas for further consideration by the Study Team. The following report is the culmination of this effort, which will inform the multi-stakeholder statewide meeting and be presented to the Aloha+ Challenge signatories for the online Dashboard. The Aloha+Challenge signatories include the four county mayors, the Governor and the Office of Hawaiian Affairs. The recommendations for Hawai‘i’s 2030 Smart Sustainable Communities goal include the set of target statements below. The next steps include developing a comprehensive set of indicators and metrics, including identifying available data, to track these objectives over time.

Recommended Target Statements

<table>
<thead>
<tr>
<th>Mobility/Accessibility</th>
<th>People can safely move to destinations with a choice of transportation options at a reasonable time.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affordable Housing</td>
<td>To decrease the percentage of salary that goes to housing and transportation.</td>
</tr>
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<td>Connection to Place</td>
<td>To create a sense of belonging and responsibility among people by enhancing appreciation of ‘aina (people + place) and connection to neighbors and community.</td>
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<tr>
<td>Economic Prosperity</td>
<td>To support an entrepreneurial ecosystem.</td>
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<td></td>
<td>To increase economic opportunities that strengthen Hawai‘i’s natural environment, culture and community.</td>
</tr>
<tr>
<td>Resilience and Disaster Management</td>
<td>To mitigate, withstand and recover from acute physical shocks and chronic stresses by reducing vulnerability, increasing diversity and adaptive capacity.</td>
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<tr>
<td>Urban Impact Mitigation</td>
<td>To decrease the negative impacts of Hawai‘i’s built environment on the natural environment and enhance livability.</td>
</tr>
<tr>
<td>Open, Public, Green Spaces</td>
<td>To enhance and encourage diverse uses of and investment in Hawai‘i’s abundant public, open spaces and cultural sites, and increase community-based partnerships and agreements for stewarding them.</td>
</tr>
</tbody>
</table>
Smart Sustainable Communities Roundtable Partners

Hawaiian Airlines
Hawai'i Green Growth
Conservation International
Harold K.L. Castle Foundation
Hawai'i Tourism Authority
Kamehameha Schools®
ahl.
G70
KTA Super Stores
Hawaii Pacific University
Kualoa Private Nature Reserve
Pineapple Tweed
American Savings Bank
Oahu Economic Development Board
1 Introduction

There is growing recognition that long-term sustainability requires an understanding of the relationship between urban and natural ecosystems, as well as complementarities and trade-offs between economic growth, social well-being, and environmental stewardship. Many business leaders across the world are looking for ways to conserve important natural resources, while achieving economic growth and community resilience.

In September 2016, Hawai‘i hosted over 10,000 delegates at the IUCN World Conservation Congress (WCC), during which Hawai‘i was highlighted as a leader in sustainability. While conserving natural resources is critical to economic prosperity in Hawai‘i, finding the balance between healthy ecosystems, social well-being and growth is a daily challenge that needs to take into account multiple trade-offs and opportunities. To address this, Hawaiian Airlines, Conservation International and Hawai‘i Green Growth together launched the Smart Sustainable Communities Roundtable ("Roundtable"). The *Aloha+ Challenge*Smart Sustainable Communities 2030 goal, unanimously endorsed by Hawai‘i State Legislature (SCR 69), all four county mayors, the Governor and Office of Hawaiian Affairs calls to: "**Increase livability and resilience in the built environment through planning and implementation at the state and county levels.**" This statement implies that this goal addresses communities statewide, though specific targets may be more relevant in urban areas. This goal is among six statewide 2030 sustainability goals that together form a joint leadership commitment to sustainability for the State of Hawai‘i. The development of goals and indicators that track progresss over time is intended to help policy-makers and other stakeholders assess Hawai‘i’s progress towards a sustainable future. The Roundtable, launched in 2015, convened a series of meetings to define the targets and indicators under the *Aloha+ Challenge* Smart Sustainable Communities 2030 goal. The following report details the process and outcomes from the Roundtable’s efforts and lays out next steps for the Roundtable on collaborative sustainability initiatives, or *Business Blueprints for Action*.

By creating a platform for collaboration, the Roundtable provides business leaders with an opportunity to engage in a productive discussion around critical environmental threats and work together to shape a more sustainable economy. Understanding the characteristics that distinguish a community and how to frame sustainability are crucial to a comprehensive assessment of the recommendations submitted. We hope this report serves as a key contribution to advancing the shared vision of a more prosperous future for Hawai‘i.
2.1 Smart Sustainable Communities Roundtable and Study Team

The Roundtable was launched in 2015 by Hawaiian Airlines, Conservation International, and Hawai‘i Green Growth with key conservation and business leaders to catalyze a conversation about the interplay between economic growth and environmental stewardship in Hawai‘i. As a first initiative, the Roundtable agreed to develop recommendations for Hawai‘i’s Aloha+ Challenge Smart Sustainable Communities 2030 goal.

The Roundtable established an expert level “Study Team” that convened more frequently and provided key research and analysis on potential targets for the 2030 Smart Sustainable Communities goal. These findings were presented to the Roundtable at quarterly meetings convened throughout 2016.
# Smart Sustainable Communities Roundtable Membership

## Facilitation Team Members

1. Ann Botticelli, Hawaiian Airlines (Co-Chair)  
2. Jack Kittinger, Conservation International (Co-Chair)  
3. Celeste Connors, Hawai‘i Green Growth (Co-Convener)  
4. Makena Coffman, Consultant (Co-Convener)  
5. Dave Simpson, Hawai‘i Green Growth (Coordinator)

## Roundtable and Study Team Members

1. Amy Brinker, Kamehameha Schools *  
2. Aki Marceau, Honolulu Authority for Rapid Transport *  
3. Barry Taniguchi, KTA Super Stores  
4. Ben Sullivan, County of Kaua‘i *  
5. Bettina Mehnert, Architects Hawai‘i Ltd  
6. Brent Kakesako, Hawai‘i Alliance for Community-Based Economic Development *  
7. Bitsy Kelley, Outrigger Enterprises Group  
8. Charles Kaneshiro, Group 70  
9. Chris Abbott, American Savings Bank *  
10. Daniel Chun, Alaska Airlines *  
11. Daniel Nahoopii, Hawai‘i Tourism Authority  
12. Eva Schemmel, Conservation International *  
13. Eric Co, Castle Foundation *  
14. Geoffrey Bannister, Hawai‘i Pacific University  
15. Heidi Kim, HMSA Blue Zone Project *  
16. Jeff Overton, Group 70 *  
17. Jesse Souki, Honolulu Authority for Rapid Transport *  
18. John Morgan, Kualoa Ranch  
19. Josh Stanbro, Hawai‘i Community Foundation *  
20. Kealoha Fox, Office of Hawaiian Affairs *  
21. Kevin Chang, Kua‘āina Ulu ‘Auamo *  
22. Mark Dunkerly, Hawaiian Airlines  
23. Matthew Gonser, University of Hawai‘i Sea Grant College Program *  
24. Nicola Szibbo, City & County of Honolulu Dept. of Planning & Permitting *  
25. Peter Hirai, City & County of Honolulu Dept. of Emergency Management *  
26. Piia Aarma, Pineapple Tweed *  
27. Pono Shim, Oahu Economic Development Board  
28. Regina Ostergaard-Klem, Hawai‘i Pacific University *  
29. Robin Kumabe, bCause *  
30. Rob Parsons, Maui County *  
31. Scott Glenn, Office of Environmental Quality Control *  
32. Terry George, Castle Foundation  
33. Walter Thoemmes, Kamehameha Schools

*Indicates served as a Study Team member
2.2 Developing a Conceptual Framework for Smart Sustainable Communities

Initial Study Team discussions focused on developing a framework for Smart Sustainable Communities within the Hawai’i context. As a starting point, faculty from Hawai’i Pacific University and the University of Hawai’i at Manoa, Regina Ostergaard-Klem and Kirsten Oleson, presented their ongoing research on a Genuine Progress Indicator for Hawai’i (GPI). GPI is a single headline indicator that builds on the more traditional measure of Gross Domestic Product (GDP) but adjusts for social and environmental outcomes (see Figure 1) and Ostergaard-Klem and Oleson are working to capture GPI in the Hawai’i context. In 2005 - the most recent year with data for all indicators - the overall GPI for Hawai’i was increased substantially by the areas of higher education, net capital investment and volunteer work. In contrast, there were significant costs due to underemployment, impacts of climate change, lost leisure time and the impact of nonrenewable energy. For example, per capita personal consumption was adjusted downward by almost $900 for the economic component and $6,200 for the environmental component, due to factors like underemployment, cost of commuting, water pollution, impacts of climate change and nonrenewable energy. Meanwhile, it was adjusted upward by $8,600 for the social component, which factors in the value of higher education, net capital investment and volunteer work.

GPI offers a methodological framework and meta-indicator for assessing the long-term impacts of public policy decisions on overall well-being. Maryland and Vermont are already using GPI as a tool to track and assess policy decisions (Vermont through legislative action; Maryland through administrative action taken by the Governor). In addition, Washington and Oregon are taking steps to move toward a GPI in some form.

**Genuine Progress Indicator**

The Genuine Progress Indicator (GPI) accounts for Gross Domestic Product (GDP) and “beyond.” GPI could be a powerful tool for evaluating and capturing economic prosperity within in Hawai’i. Although GPI and GDP both begin with personal consumption expenditures, GPI then measures the value of:

1) **Important economic activities not captured in GDP**
2) **Environmental goods and services**
3) **Social well-being**

![Figure 1: Genuine Progress Indicator Wheel](source)

GPI aggregates the value of economic, environmental and social metrics into a single, common indicator allowing comparisons across seemingly incommensurate policy goals, such as forest preservation, income inequality, and educational attainment. Observing GPI over time can provide insight into the true progress and well-being of a community. The significance of GPI, for both stakeholders and the general public, is its potential to drive policy decisions and foster recognition of overall trends for a more complete picture.
Study Team and Roundtable members also reviewed other current sustainability efforts at the local, national and international levels. This included a review of the *Aloha+ Challenge 2030* statewide sustainability goals, the U.S. Department of Housing and Urban Development – Department of Transportation – Environmental Protection Agency (HUD-DOT-EPA) Partnership for Sustainable Communities, and the United Nations 2030 Sustainable Development Goals (SDGs). The major themes of these efforts were compared to the categories used by Ostergaard-Klem and Oleson for Hawaiʻi’s GPI analysis. These discussions provided the conceptual framework for the Study Team and Roundtable and help frame further analysis of Smart Sustainable Communities.

### 2.3 The Hawaiʻi Context

The Study Team and Roundtable engaged in a series of discussions regarding Hawaii’s unique and rich culture and values, and how Smart Sustainable Communities could be understood in the local context. The Study Team developed a working list of topics for further exploration (provided in Appendix 1). In March 2016, Study Team and Roundtable members identified their top 10 choices and voted on priority areas within the list.

The voting results were assessed to determine the top priorities, which were considered based on the overall number of votes within each category or sub-category. If an overarching category, such as mobility/transportation, received a high number of votes (in this case a total of 30), it was made a priority topic. In addition, several sub-categories like Affordable Housing (a sub-category of Housing), received considerable attention (with 13 votes) and was thus also elevated within the priority list. Seven priority areas were selected, with votes as listed below:

1. **Mobility / Transportation** (30 Votes)
2. **Resilience / Disaster Management** (17 Votes)
3. **Urban Impact Mitigation** (16 Votes)
4. **Economic Development / Information Infrastructure** (15 Votes)
5. **Maintaining and Managing Green / Public Spaces** (14 Votes)
6. **Affordable Housing** (13 Votes)
7. **Connection to Place** (13 Votes)

The Study Team was tasked with evaluating each of the seven priority areas, the results of which were presented to the Roundtable in November 2016 for final review.
2.4 Review of Study Team Meetings

The Study Team meetings featured a series of formal presentations on the seven priority areas by both Study Team members and guest presenters with subject expertise (as shown in Table 1). Presentations were then followed by group discussion on potential targets, indicators and data sources.

<table>
<thead>
<tr>
<th>2016 Meetings</th>
<th>Topic</th>
<th>Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 2</td>
<td>Mobility/Transportation</td>
<td>Aki Marceau, Honolulu Authority for Rapid Transportation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ben Sullivan, County of Kaua’i</td>
</tr>
<tr>
<td>June 24</td>
<td>Mobility/Transportation Affordable</td>
<td>Caterine Picardo-Diaz, City and County of Honolulu</td>
</tr>
<tr>
<td></td>
<td>Housing</td>
<td>Dave Simpson, Hawai‘i Green Growth</td>
</tr>
<tr>
<td>July 22</td>
<td>Affordable Housing Economic</td>
<td>Marian Gushiken, EAH Housing</td>
</tr>
<tr>
<td></td>
<td>Development</td>
<td>Makena Coffman, University of Hawai‘i at Manoa</td>
</tr>
<tr>
<td>August 9</td>
<td>Green/Public Spaces Connection to</td>
<td>Chris Dacus, City &amp; County of Honolulu</td>
</tr>
<tr>
<td></td>
<td>Place</td>
<td>Department of Parks and Recreation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Brent Kakesako, HACBED</td>
</tr>
<tr>
<td>September 20</td>
<td>Resilience/Disaster Management</td>
<td>Matthew Gonser, University of Hawai‘i Sea Grant College Program</td>
</tr>
<tr>
<td></td>
<td>Urban Impact Mitigation</td>
<td>Laura McIntyre, Hawai‘i Department of Health: Environmental Planning Office</td>
</tr>
</tbody>
</table>

Mobility and Transportation presentations provided a summary of the major rail project on Oahu, county plans for multi-modal implementation on Kaua‘i, an overview of transportation goals across the state and the intersection between transportation and housing through neighborhood design for transit-oriented development (TOD). The presentations on Affordable Housing shed light on the relationship between mobility and housing costs, and the role of Transit-Oriented Development in determining housing stocks around the forthcoming rail system stations on Oahu. A presentation by the non-profit EAH Housing focused on the ongoing affordable housing shortage in Hawai‘i and current efforts by various groups to provide adequate housing for lower income residents. Housing discussions transitioned to presentations on Economic Development with analysis of the regional economy and evaluation of current trends. This included a discussion around Hawai‘i’s economic clusters and historical economic trends that may determine future growth.

A presentation by the Honolulu Department of Parks and Recreation helped frame Hawai‘i’s opportunities and challenges around Green and Public Spaces, and gave a detailed assessment of the city-owned public green spaces including management practices, comparison to other cities across the country and efforts to achieve cost-effective maintenance practices. To provide context for group discussion on Connection to Place, a presentation from a Study Team member representing a community-based nonprofit offered insight into their organization’s work to engage local communities in decision-making processes and network-based approaches that connect people to each other and to the land. A Study Team member from the University of Hawai‘i Sea Grant College Program (Hawai‘i Sea Grant) provided context for Resilience and Disaster Management with an overview of the vulnerability of communities across the state to various stressors in the form of both existing hazards and potential threats from disaster events. The presentation provided vulnerability assessments as well as techniques and strategies currently being implemented at the local, regional, and national level to build resilient communities. The final topic of Urban Impact Mitigation included presentations by both Hawai‘i Sea Grant
and the Department of Health. While various forms of urban impact were discussed, the focus of the presentations highlighted stormwater management – which was identified as being particularly important for Hawai‘i. The following section features a summary of the collective recommendations based on the presentations and the subsequent group discussions.

2.5 Summary of Findings

At the conclusion of the series of meetings, the Study Team defined target statements for each of the seven areas and created a working document to present to the Roundtable for the fourth quarter meeting. The following sections elaborate on the recommendations provided by the Study Team and offer a draft set of target statements, with information on potential indicators and data sources where available.

2.5.1 Mobility/Accessibility

The Aloha+ Challenge currently tracks transportation under the Energy goal as defined by emissions and efficiency standards. Therefore, it is recommended that a transportation target for Smart Sustainable Communities focus on mobility, accessibility and mode share.

The linkage between transportation and housing are key aspects of peoples’ mobility and accessibility to a variety of destinations and opportunities. Affordable and diverse transit options are particularly important for low-income residents who might not be able to afford more expensive forms of transportation and, therefore, any discussion around sustainable transportation should recognize the debate on equity and access. Equity concerns are often associated with the considerable percentage of one’s income dedicated to transportation costs and distance to occupation rates linked to affordable land and housing values. Transit-Oriented Development (TOD) incorporates these concepts into a set of principles to guide the development of neighborhoods around transit stations. Complete Streets is a planning concept, representing one aspect of TOD, which strives to incorporate all users into street design. While TOD will be critical on the island of Oahu around the rail project, the same principles of access to mobility choices and multi-modal transportation are also key to plans on neighboring islands, evidenced by Kauai’s multi-modal transportation plan.

Study Team members agreed that mode share goals be defined at the county level rather than the state level due to the distinct characteristics of each island. In addition, partnerships and public involvement are critical to the decision-making process shaping these communities successfully. The Study Team also discussed community health impacts of active transportation (pedestrian/bicycle access); transportation cost including time loss; and tradeoffs between speed and safety. Mobility could potentially be tracked by assessing rates of vehicle miles travelled, transportation safety data determined by pedestrian fatality rates or metrics that measure the diversity of transportation mode shares across the state.

2.5.2 Affordable Housing

Hawai‘i has some of the highest housing costs in the country. Organizations that provide affordable housing in Hawai‘i use various incentives and financial mechanisms including federal tax credits, low-interest loans, and negotiated land costs (essentially free) to make projects pencil out. The Study Team also discussed how there are currently greater efforts in Hawai‘i to support home ownership rather than low-cost rental housing. That said, there are a few existing federal programs offered through tax credits for construction of low-income housing that are designed specifically for rental properties. These programs are offered to properties targeting tenants earning 30-60% of Area Median Income (AMI). Generally, affordable housing is understood to be when housing costs are at or below 30% of one’s
Further assessment is needed to determine metrics to track affordability under the Smart Sustainable Communities goal. This could potentially be achieved by tracking the number of affordable housing units, the income diversity of development projects or the percentage of residential income for the provision of housing. It will also be crucial to recognize the diverse range of community characteristics across the state and distinguish the housing metrics based on the local standards.

### 2.5.3 Connection to Place

Though the Study Team had a rich discussion on the importance of culture and connection to place – particularly characterized as “connecting people to people and people to ‘aina” – it was also recognized that this may be difficult to capture within a quantitative indicator. Enhancing a connection to place often involves engagement with local communities to provide a voice in decision-making and ensure cohesive networks to build vibrant communities. It also requires strategic decisions to foster the cultural significance of places and practices, which can be illustrated through placemaking by appropriate naming, restoration of native plants and supporting cultural practices. While it may be difficult to quantify connection to place, there are ways to measure public engagement by the community through the level of community involvement in decision-making, participation at public hearings and tenure of residents that may lend to stronger connections. Other potential metrics for establishing a cultural sense of connection could be tied to significant place names appropriate to its historical context that enriches the placemaking of public spaces.

### 2.5.4 Economic Prosperity

Hawai’i will need to maintain a robust economy to support healthy and vibrant communities. Though tourism remains Hawai’i’s largest private sector industry and export, Hawai’i also has numerous small sectors – several of which are growing at rapid pace. For example, there has been substantial growth in the last decade in industries classified under education, knowledge creation and research. Though still small, this growth can be meaningful. In addition, the Study Team discussed that there is increasing interest in how “sustainable tourism” could be embraced as a model so we’re able to preserve the environmental beauty that drives visitor arrivals. There are a variety of potential indicators that could measure economic prosperity (detailed in Appendix 2) and special attention should be focused on fostering overall prosperity, such as GPI. This could additionally include tracking conditions for entrepreneurship measured by patenting rates, availability of supporting technologies, and other data tracking the strength and diversity of industries.

### 2.5.5 Resilience and Disaster Management

Hawai’i's communities are particularly vulnerable to a variety of natural disasters and other stressors due to its island geography. This includes hurricanes and tsunamis, as well as prolonged hazards such as flooding, sea-level rise and coastal erosion. This vulnerability not only jeopardizes people’s physical well-being, but also has major financial implications. As a result of Hawai’i’s dependence on tourism, the State’s economy is highly susceptible to a variety of shocks. It is estimated that a Category 4 hurricane – Iniki strength - making landfall in Waikiki, would result in billions of dollars in direct economic losses, much of which is not covered by Federal Emergency Management Agency (FEMA). The Study Team discussed how building resilient communities is vital to withstanding future stressors and preventing significant consequences from disasters and hazards. In addition, the implementation of adaptation strategies to address the already occurring impacts of climate change requires more research. Current trends in Hawai’i have shown significant climate change impacts concerning air temperature, precipitation levels, sea surface temperatures, ocean acidity, sea level rise and other threats to human health.
The Study Team discussed definitions of resiliency as well as metrics that could capture its meaning. The Community Rating System (CRS) is one such tool, maintained by the FEMA. The CRS is a voluntary incentive program, part of the National Flood Insurance Program (NFIP), offering discounted premium rates for reducing community flood risk. Resilience could also be shown through rates of pre-disaster mitigation plans and climate adaptation plans being implemented. Honolulu also recently joined the Rockefeller Foundation’s 100 Resilient Cities initiative, which offers an index measuring a comprehensive set of criteria of infrastructure, health, social well-being and community leadership.

2.5.6 Urban Impact Mitigation

The impact of urban development on the natural environment is increasingly well documented. Negative impacts from urban development include, for example, non-point source pollution from runoff, light pollution, the urban heat island effect, noise pollution, waste and wastewater.

Mitigating the effects of these impacts can conversely create more “livability” for communities and generate a healthier, better quality of life. Increasing green infrastructure and urban forestry, for example, can strategically address stormwater management and mitigate heat island effects. By tackling issues like non-point source pollution, the overall physical and economic health of our communities will benefit from prevention of “brownwater” events. The Study Team discussed indicators tracking the number of active cesspools and annual brownwater, as well as more preventative efforts like the percentage of impervious surfaces or deployment of green infrastructure, such as urban trees and green roofs.

2.5.7 Open, Public, Green Spaces

Increasing green and public spaces is strategically important to developing vibrant communities. Researchers and planning practitioners often point to the variety of social, environmental and economic benefits that parks provide communities. The cost of maintaining parks and other green spaces can vary greatly between cities in the United States. Honolulu spends about $17 per resident for city parks, while San Francisco allocates $130 per resident. While Honolulu’s parks may have budgeting challenges, Honolulu does very well relative to other cities in terms of public access – largely due to the proximity of many small lot parks and beach parks. The Department of Parks and Recreation is setting goals to diversify facilities at parks and create specialty parks (e.g. dog parks and soccer fields), as well as reduce unnecessary utility costs. There is also a growing need to quantify the value of public space through recreation and leisure time to justify investment. In addition, community groups could provide an opportunity to help manage green spaces and increase public involvement. Determining the metrics for measuring green spaces could be accomplished through existing national rating systems like the Parkscore managed by the Trust for Public Land. Other data sources could be provided by the county to evaluate total land by acreage ratio to population, diversity of recreation activities offered or simply by the monetary investment in public spaces.

3 Outcomes and Recommendations

At the conclusion of the Study Team process, the seven priority areas were reviewed together to confirm that these areas define a “smart sustainable community” for Hawai‘i. While health and well-being were discussed extensively throughout the process, it was agreed that these topics are meta-themes permeating all other priority areas. The integrated nature of health and well-being across all the focal areas might be lost if reflected as a stand alone target. The Study Team drafted language on target statements within each of the seven areas, with corresponding indicators and potential data sources.
(provided in Appendix 2). The Roundtable reviewed the recommendations and provided additional input. The following set of target statements represent the collective recommendations of the Smart Sustainable Communities Study Team and Roundtable.

3.1 **Target Statements**

**Mobility/Accessibility**
*People can safely move to destinations with a choice of transportation options at a reasonable time.*

**Affordable Housing**
*To decrease the percentage of salary that goes to housing and transportation.*

**Connection to Place**
*To create a sense of belonging and responsibility among people by enhancing appreciation of ‘aina (people + place) and connection to neighbors and community.*

**Economic Prosperity**
*To support an entrepreneurial ecosystem.*

To *increase economic opportunities that strengthen Hawai‘i’s natural environment, culture and community.*

**Resilience and Disaster Management**
*To mitigate, withstand and recover from acute physical shocks and chronic stresses by reducing vulnerability, increasing diversity and adaptive capacity.*

**Urban Impact Mitigation**
*To decrease the negative impacts of Hawai‘i’s built environment on the natural environment and enhance livability.*

**Open, Public, Green Spaces**
*To enhance and encourage diverse uses of and investment in Hawai‘i’s abundant public, open spaces and cultural sites, and increase community-based partnerships and agreements for stewarding them.*

4 **Conclusions and Next Steps**

The contents of this report are offered as recommendations by the Smart Sustainable Communities Study Team and Roundtable, to be presented at the *Aloha+ Challenge* multi-stakeholder Statewide Meeting on Smart Sustainable Communities in May 2017. The final agreed upon indicators and metrics will be presented to the signatories of the *Aloha+ Challenge*, specifically all four county Mayors, the Governor and Office of Hawaii Affairs, for review and approval, after which the goal will be uploaded and tracked on the online *Aloha+ Dashboard* (https://dashboard.hawaii.gov/aloha-challenge).

The Smart Sustainable Communities Roundtable will continue to identify concrete initiatives, or *Business Blueprints for Action*, that will help local business leaders collaborate on projects that build resilience, reduce risk and create investment opportunities in Hawai‘i. By convening a network of Hawai‘i’s business leaders, the Smart Sustainable Communities Roundtable envisions a more sustainable future for Hawai‘i based on principles of environmental stewardship, economic prosperity and community resilience.
### Appendix 1

**Smart Sustainable Communities Roundtable March 31st 2016**  
**Focal Area Voting Results**

<table>
<thead>
<tr>
<th>Focal Area</th>
<th>Theme/Category</th>
<th>Votes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Buildings</strong></td>
<td>Buildings</td>
<td>5</td>
</tr>
<tr>
<td>Efficient use of Urban Infrastructure – high density per linear foot</td>
<td>Buildings</td>
<td>1</td>
</tr>
<tr>
<td>Building Efficiency</td>
<td>Buildings</td>
<td>0</td>
</tr>
<tr>
<td>Net Positive Building</td>
<td>Buildings</td>
<td>1</td>
</tr>
<tr>
<td>Move away from Euclidean Zoning (performance zoning?)</td>
<td>Buildings</td>
<td>0</td>
</tr>
<tr>
<td>Green Building materials and systems</td>
<td>Buildings</td>
<td>2</td>
</tr>
<tr>
<td><strong>Economic</strong></td>
<td>Economic</td>
<td>1</td>
</tr>
<tr>
<td>Cottage Industry -how to address technology-induced business (eg. Airbnb)</td>
<td>Economic</td>
<td>2</td>
</tr>
<tr>
<td>Visitor / Tourism Industry Integration</td>
<td>Economic</td>
<td>2</td>
</tr>
<tr>
<td>Sustainable Tourism</td>
<td>Economic</td>
<td>8</td>
</tr>
<tr>
<td>Economic Development</td>
<td>Economic</td>
<td>6</td>
</tr>
<tr>
<td>A range of employment and career opportunities</td>
<td>Economic</td>
<td>0</td>
</tr>
<tr>
<td>Entrepreneurial Development</td>
<td>Economic</td>
<td>2</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td>Education</td>
<td>4</td>
</tr>
<tr>
<td>Education</td>
<td>Education</td>
<td>0</td>
</tr>
<tr>
<td>Open access to excellent education</td>
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<td>Integration of Multi-generational, multi-income, multi-ethnicity, multi-profession communities</td>
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<td>Integration of immigrants- eg. Climate refugees/forced immigration (education &amp; community centers, language barriers, cultural differences)</td>
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<td>Income gap and living wages</td>
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<td>Inequities: gender, income, financial empowerment, ethnicity</td>
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<td>Childcare (Early Childhood Education)</td>
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<td>Children’s Health</td>
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<td>Community Driven Policies informed by traditional ecological knowledge</td>
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<td>Increase civic participation (leadership / community-driven) in community and government</td>
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<td>Participation in planning process (where community voice should be?) (partly b/c of different layers of government / process in project)</td>
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<td>Integration in rule-making? (related to Housing)</td>
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<td>Governance</td>
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<td>What are the barriers? Study/know tradeoffs?</td>
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<td>Higher level of protection for traditional &amp; customary practice (know what it is? Part of public trust &amp; ethic of this land / related to access)</td>
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<td>Traffic</td>
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<td>Complete Streets (process as well)</td>
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<td>Active Transportation – Biking/Walking</td>
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<td>Congestion Management (change from level of service)</td>
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<td>Boats / Ferries</td>
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<td>Flood Plain Management / Vulnerability</td>
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<td>Culture – How to factor in</td>
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<td>Loss of community feel (from vacation rentals)</td>
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<td>Community Connectivity/Social Infrastructure (Walkable/Bikeable Communities, Dog Parks?)</td>
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<td>Communication of Natural Disaster Risk</td>
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<td>Root attitude (Community Involvement, Collaboration, Social Cohesion)</td>
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<td>Problematic in perception of the visitor</td>
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# Appendix 2

## Smart Sustainable Communities Goal: Recommended Targets and Indicators

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<th>Indicators</th>
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<td>Mobility/Accessibility</td>
<td>Eliminate Pedestrian Fatalities</td>
<td>Dept. of Transportation</td>
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<td>Land Use Diversity by Ratio of Jobs to Housing</td>
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<td>Fairness in Road Usage</td>
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<td>Affordable Housing</td>
<td>Percentage of Affordable Housing with LEED or other Equivalent Certification</td>
<td>US Green Building Council</td>
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<td>Other Certification Orgs</td>
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<td>Percentage of Salary for Housing</td>
<td>US Census</td>
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<td>Affordable Housing</td>
<td>Percentage of Salary for Housing + Transportation</td>
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<td>Debt to Income Ratio</td>
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<td>Connection to Place</td>
<td>Sense of Belonging</td>
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<td>Community Involvement in Decision-Making</td>
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<td>Increase Usage of Place Names</td>
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<td>Connection to Place</td>
<td>Increase Participation in Public Hearings</td>
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<td>Connection to Place</td>
<td>Tenure of Community</td>
<td>ACS Data</td>
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<td>Patenting/IPO/licenses &amp; acquisition &amp; commercialization &amp; VC</td>
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<td>Diversity of industries &amp; job training programs</td>
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<td>Tourism – Energy efficiency in aircraft/hotels – Visitor arrivals –</td>
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<td>Energy per visitor</td>
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<tr>
<td>Number of industries that adopt triple-bottom-line</td>
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<td>Number of benefit corporations or “b corp” registered in Hawaii</td>
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<td>GRI, global reporting initiative</td>
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<td># of social service providers per population (mental health)</td>
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<td>Sea Level Rise and Climate Adaptation Planning</td>
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<td>Post-Disaster “Rebuild Better”</td>
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<td>Emergency Health Services</td>
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<td>Vulnerable Populations</td>
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<td>Community Rating System Indicator</td>
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<td># of Brown Water Days per Year</td>
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<td># of Active Cesspools per Island</td>
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<td>% of Impervious Surfaces</td>
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<td>Population Density per Linear Foot of Infrastructure</td>
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<td>Eliminate Illegal Dumping</td>
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<td>Urban Trees (proportion native and/or shade trees)</td>
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<td>Green and Cool Roofs</td>
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<td>Residential Satisfaction</td>
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<td>Trust for Public Land</td>
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<td>Open, Public, Green Spaces</td>
<td>ULI data</td>
<td>Urban Land Institute</td>
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<td>Open, Public, Green Spaces</td>
<td>$ spent on maintenance of public spaces</td>
<td>Dept. of Parks &amp; Recreation</td>
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<tr>
<td>Open, Public, Green Spaces</td>
<td>Activities offered within public spaces</td>
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<tr>
<td>Open, Public, Green Spaces</td>
<td>Metric for quality of the space</td>
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<td>Open, Public, Green Spaces</td>
<td>How to capture well done efficient expenditures to date</td>
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<tr>
<td>Open, Public, Green Spaces</td>
<td>Process metric</td>
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<tr>
<td>Open, Public, Green Spaces</td>
<td>Investment by private partners</td>
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