Virtual Community Engagement with D4CR

Green Step Cities Webinar
27 May 2020

UNIVERSITY OF MINNESOTA
Driven to Discover℠

Team

Minnesota Design Center Management Team

Tim Griffin FAIA, LEED AP, Project Manager and Geodesign Lead
Jonee Kulman Brigham, AIA, LEED AP O+M, Sustainable Design Lead
Duane (Dewey) Thorbeck, FAIA, FAAR, Design Lead
Tom Fisher, MDC Director and IGC Lead

Partners

UMN Institute on the Environment
UMN Energy Transition Lab
UMN Department of Agriculture
UMN U-Spatial
UMN Extension: Regional Sustainable Development Partners
AIA Minnesota
More...

NW Minnesota Pilot Cities Leaders

Shannon Mortenson
City of Warren

Aimee Sugden
City of Hallock

Angel Weasner
City of Crookston

Website: https://sites.google.com/umn.edu/d4cr

Presentation Outline

1. Introduction
2. Community Engagement Objectives
3. Equitable and Inclusive
4. Broadband/ barriers and issues
5. Shift in Community Engagement Tactics
6. Toolbox for Community Engagement
7. D4CR - example community engagement initiative
8. We invite questions and please share stories about your experiences.

Community Engagement Objectives

Inform/ Excite/ Connect

Listen

Negotiate/ Discuss

Track/ Analyze Progress Toward Goals

Celebrate/ Storytelling

Build Social Cohesion and Capacity

Equitable & Inclusive Community Engagement with Data & Decisions

Access: Barriers are removed such as internet access, travel, schedule, childcare, language

Welcome : Community members feel they belong in the conversation, can see themselves represented in the data and decisions

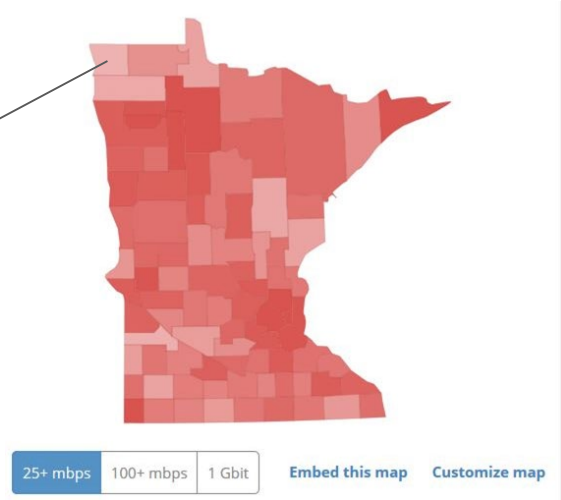
Voice: Community members have a means to have input, and feel their voice is heard by the rest of the community and government.

Goal: Equitable Access, Welcome, and Voice across: Income, language, age (youth and elders), ability, race, ethnicity, mobility, affiliations

Internet /Broadband Access

Rural Broadband access varies

Eg. Kittson County: 44.7% have access to 25mbps



https:/ / broadbandnow.com

Affordability and Availability

Strategies

- Drive up hubs, at common community locations
- Mobile hubs brought to neighborhoods
- Kiosk/ Food Truck/ Hub at Grocery Store
- Mailings/ Flyers
- ...Ultimately: expand access

Pre and Post COVID Community Engagement Shift

ENGAGEMENT	FROM	TO PRE COVID	NOW
Baseball	Local Crowds	Local Crowds and Tourists	No fans and other changes
City Council Meetings	Council Chambers	Some Cable	Cable and Zoom
Commissions	Council Chambers	Some Cable	Cable and Zoom
Task Force	City Meeting Rooms	Just starting with zoom	Zoom
Design Workshops	Schools, Churches City Hall	Little Change but some on-line	Zoom and Mural

Tips for Hosting Online Conversation

Set the stage…

Clarify Purpose.

Invite the people who care.

Create a sense of welcome.

Engage during the event…

Reflect and summarize together…

Follow up…

Source: Medium.com Peggy Holman

For more interactive convenings….

Use a digital whiteboard for shared note taking.

Do some pre-work to inform participants

Engage a graphic recorder.

Source: Medium.com Peggy Holman

Use a technology that supports interaction

Choose a technology that supports virtual interaction.

Have at least two hosts

Do a dry run

Include information and instructions.

Greet people as they arrive.

Zoom Room

Source: Medium.com Peggy Holman

TOOLS FOR COMMUNITY ENGAGEMENT

Websites

Public Meetings

Booths at Events

Newspapers

Mailings & Flyers (paper or digital)

Kiosks

Parking lots & Cafe's

Zoom Meetings

Social Media
(Facebook, Twitter, Instagram, YouTube videos, etc.)

Data/ GIS Tools
-Open Data Access (eg. Maps)
-Crowdsource/ -Surveys
-Story Maps
-Dashboards/ Hubs

Goal: Equitable Access, Welcome, and Voice across: Income, language, age (youth and elders), ability, race, ethnicity, mobility, affiliations

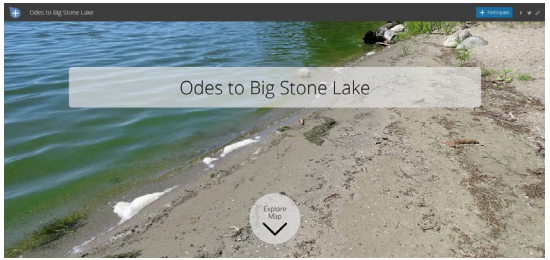
Listen/Connect: Crowdsource

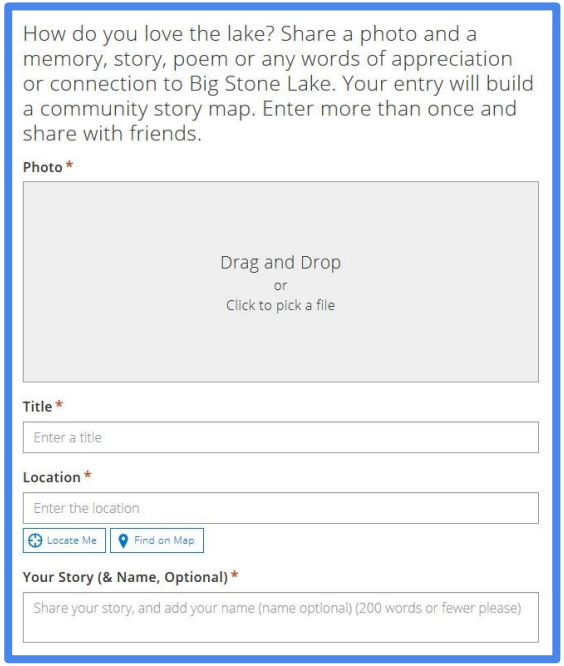
Traditional Methods
Facebook, Social Media, Idea Boards

GIS Crowdsource apps,
Easily relate content to location

View others' contributions, build momentum, excitement

Example: Crowdsource Story Map "Odes to Big Stone Lake" for sharing appreciation of lake memories to encourage lake identity and stewardship.





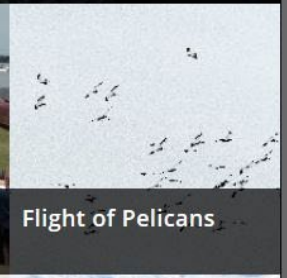
Odes to Big Stone Lake

Participate

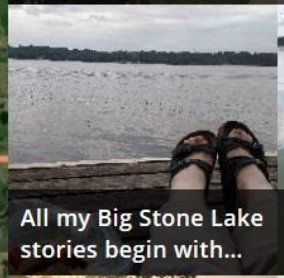
Don Sherman show Tessie Smith, a...

Sunset on Parkers Bay, Big Stone Lake

Making art at the lake.



Flight of Pelicans



All my Big Stone Lake stories begin with...

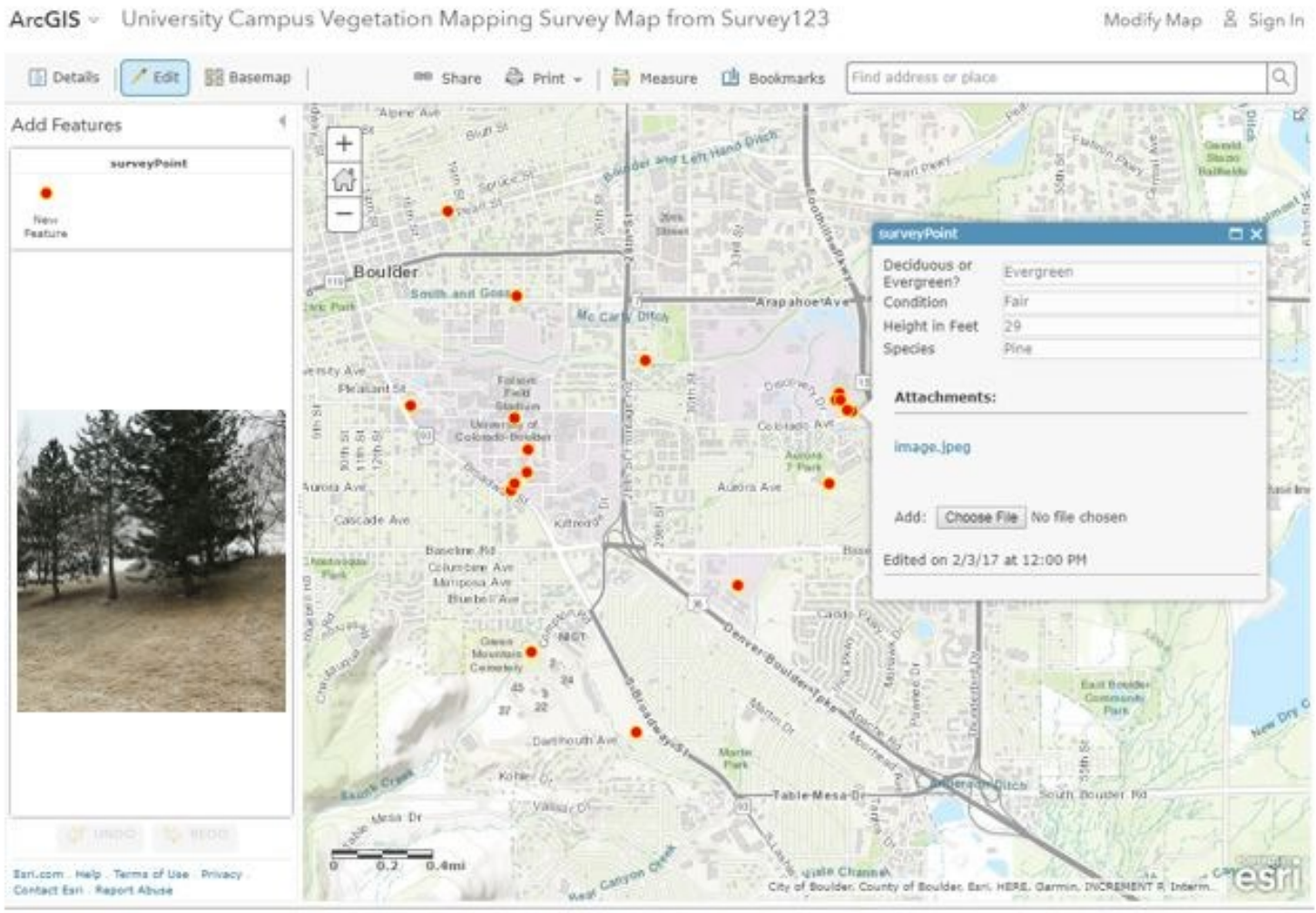
Lake fun

Listen: Surveys

Traditional Methods
Mailed paper surveys, distributed at events, digital surveys google, survey monkey, etc.

GIS survey 123: Can integrate with location based data,

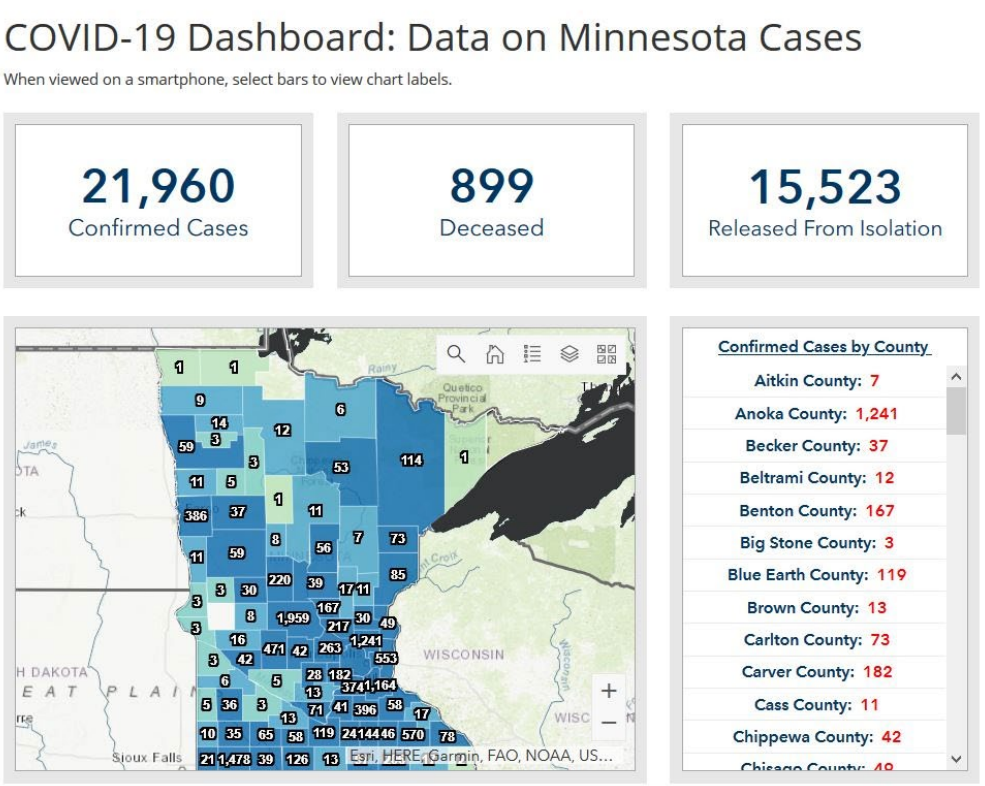
Google Forms Example:
https://goo.gl/forms/zFWjgA3wF8pX6MDe2


ArcGIS
University Campus Vegetation Mapping Survey Map from Survey123
Modify Map
Sign In
Details
Edit
Basemap
Share
Print
Measure
Bookmarks
Find address or place
Add Features
surveyPoint
New Feature
surveyPoint
Deciduous or Evergreen?
Evergreen
Condition
Fair
Height in Feet
29
Species
Pine
Attachments:
image.jpeg
Add:
Choose File
No file chosen
Edited on 2/3/17 at 12:00 PM
Boulder
Arapahoe Ave
Pleasant St
Aurora Ave
Cascade Ave
Baseline Rd
Columbine Ave
Mariposa Ave
Bluebell Ave
Colorado Ave
Denver-Boulder Turnpike
Table Mesa Dr
Darthouth Ave
South Boulder Rd
Foothills Pkwy
Pearl Pkwy
Folsom Field Stadium
University of Colorado-Boulder
Green Mountain Cemetery
Aurora Park
Marin Park
East Boulder Community Park
Gunbarrel Hill Golf Course
0
0.2
0.4mi
City of Boulder, County of Boulder, Esri, HERE, Garmin, INCREMENT P, Interm...
esri
Esri.com · Help · Terms of Use · Privacy · Contact Esri · Report Abuse

Monitor and Analyze: **Dashboards**

GIS Dashboards can

- Display and compare types of outcomes
- Allow residents to relate data to their locations of interest
- Enable residents to customize displays and query data



Minnesota GreenStep Schools - Solar on Schools Map Dashboard (prototype in progress)

Display Options

School District
All

Education Level
All

Utility
All

Installer
All

Mounting Type
All

Financing Type
All

Year Installed
All

Selected Solar School Sites

Name: Edison Senior High
Solar PV kW: 485
Year Installed: 2013
School District: Minneapolis Public School District
Site ID: 0001-03-352

Name: Forest Lake Area Community School
Solar PV kW: 320
Year Installed: 2016
School District: Forest Lake Public School District
Site ID: 0831-01-113

Name: Forest Lake Area High School
Solar PV kW: 320
Year Installed: 2016
School District: Forest Lake Public School District
Site ID: 0831-01-114

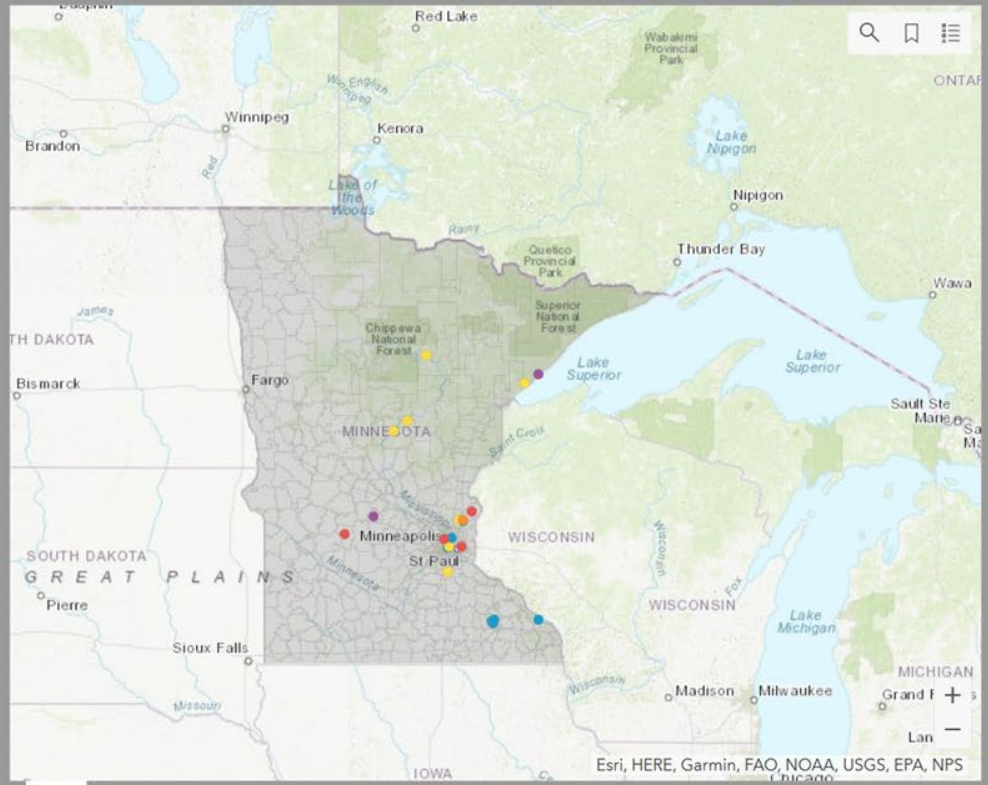
Name: Columbus Elementary
Solar PV kW: 320
Year Installed: 2016
School District: Forest Lake Public School

Last update: a few seconds ago

20,080
Students

Last update: a few seconds ago

Students | # Installations | Total kW



Map | Details

Explore & Act

Explore the Solar Suitability of your School at this LINK

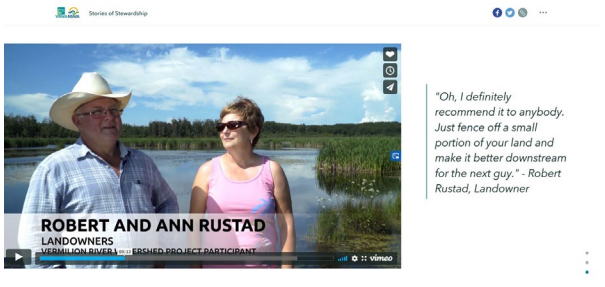
Contact MN GreenStep Schools to Learn More & Sign Up

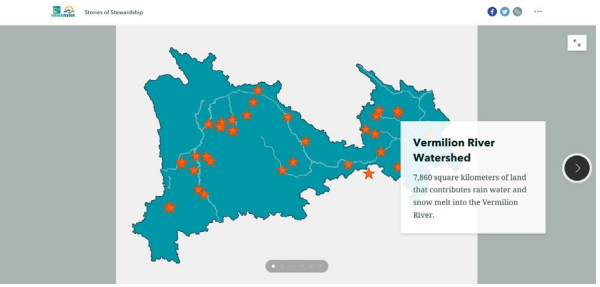
Celebration/Storytelling - Story Maps

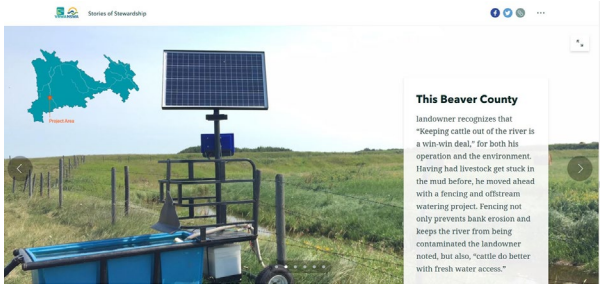
Traditional Methods:
Receptions/ Celebration Events,
Final Reports, Videos
Websites

GIS Story Maps
Can integrate multimedia storytelling and data
Can grow with a project over time

GIS Story Map Example







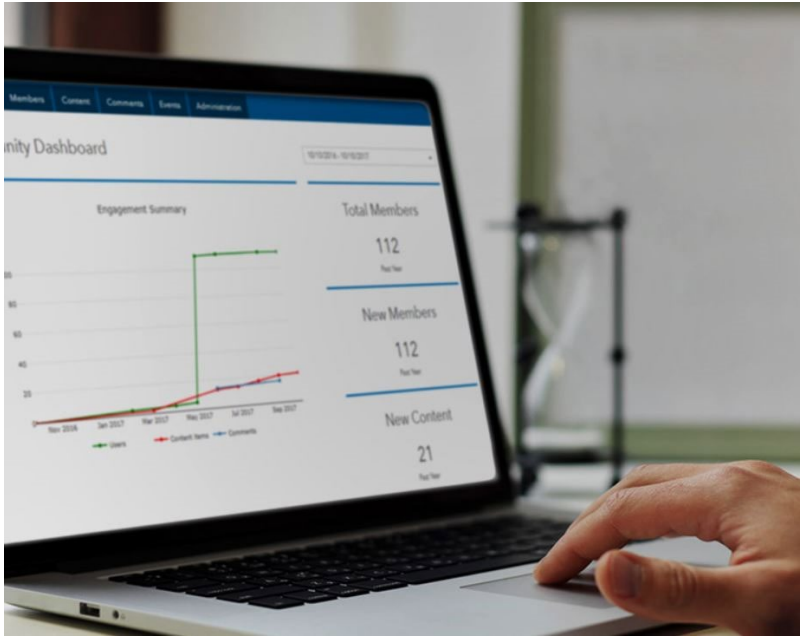
Stories of Stewardship Story Map, Vermilion River Watershed Alliance & North Saskatchewan Watershed Alliance, https://storymaps.arcgis.com/stories/87f9d8acf48441c7af1f3b3c5dabd14e

Community Hubs

A one-stop location to find information on an initiative and engage with it.

Traditional Methods:
Webpage on a city website with links

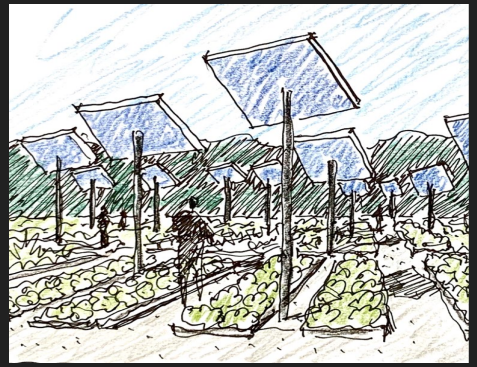
GIS Community Hub
Could be linked from city website
Resident accounts, or view anonymously,
Can manage open data sharing (eg. maps),
Community input, dashboards,
Event registrations, multimedia, stories



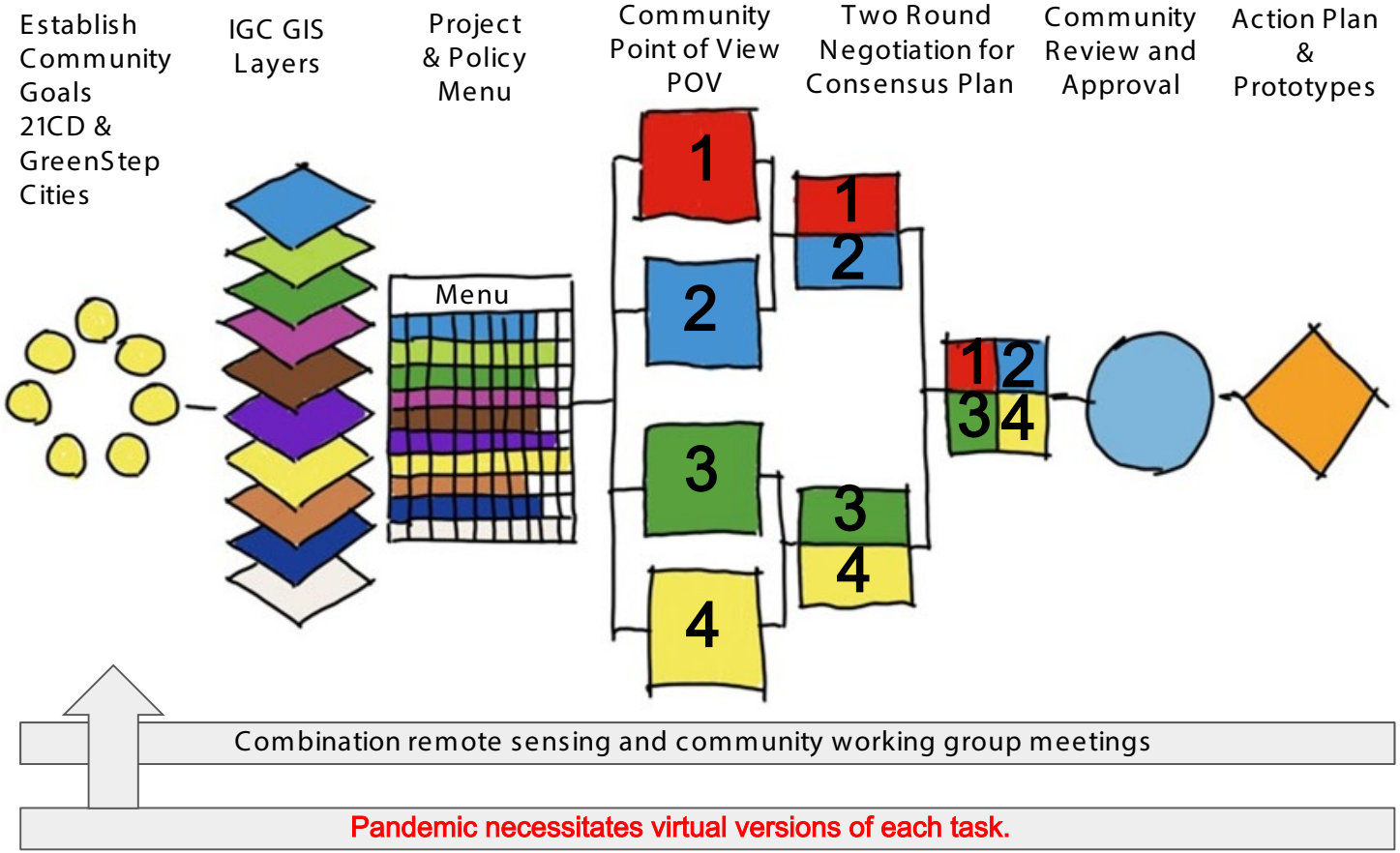
ESRI: ArcGIS Hub: Community Engagement Dashboard

D4CR

Design for Community Regeneration (D4CR) catalyzes greater resilience in rural,peri-urban, and urban communities in Minnesota by bringing an interdisciplinary Minnesota Design Center D4CR Team to generate statewide redevelopment of underutilized land to address 21st Century Grand Challenges.



D4CR Geodesign Process



Community Regeneration

21CD twenty-first century development

	Standard	Good	Better	Living Community Principles	Regenerative
Place	○	○	○	○	○
Water	○	○	○	○	○
Energy	○	○	○	○	○
Health + Happiness	○	○	○	○	○
Materials	○	○	○	○	○
Equity	○	○	○	○	○
Beauty	○	○	○	○	○

https://www.21stcenturydevelopment.org/

MN GreenStep Cities

Home About Best Practices Steps 1-5 Recognition All Cities Ordina

Best Practice

GreenStep City Best Practices: Resilient Economic and Community Development

Benchmarks and Community Engagement {BP No. 24}

Adopt outcome measures for GreenStep and other city sustainability efforts, and engage community members in ongoing education, dialogue, and campaigns.

Best Practice Actions

1. Use a city commission, or committee to **lead, coordinate, and report to and engage community members** on implementation of sustainability best practices.

2. Organize goals/outcome **measures from all city plans** and report to community members data that show progress toward meeting these goals.

3. Measure and report progress on **sustainability indicators** including energy use/greenhouse gas emissions, social vitality/social inclusion outcome measures.

4. Conduct or support a broad sustainability **education and action campaign** involving:

Resilient Economic and Community Development

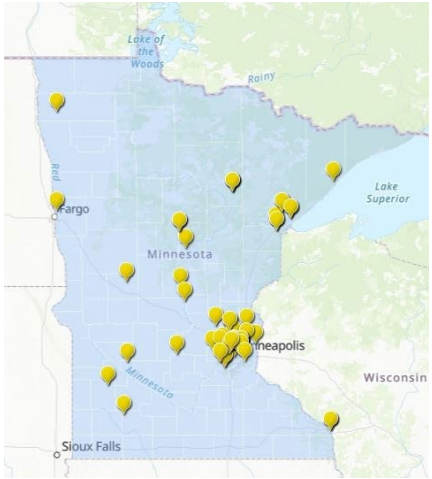
24. Benchmarks and Community Engagement

Adopt outcome measures for GreenStep and other city sustainability efforts, and engage community members in ongoing education, dialogue, and campaigns.

https:/ / greenstep.pca.state.mn.us/

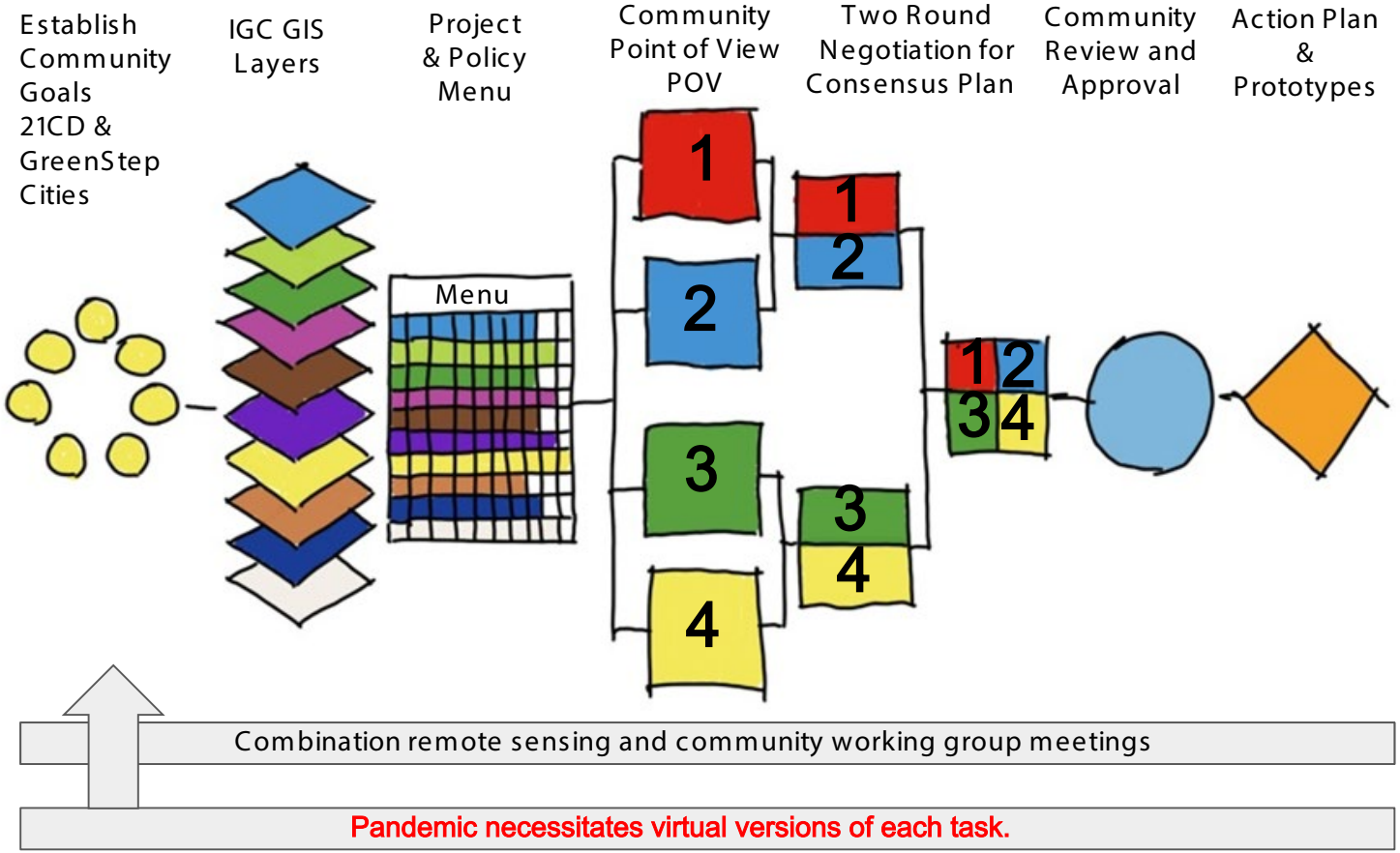
MN GreenStep Schools

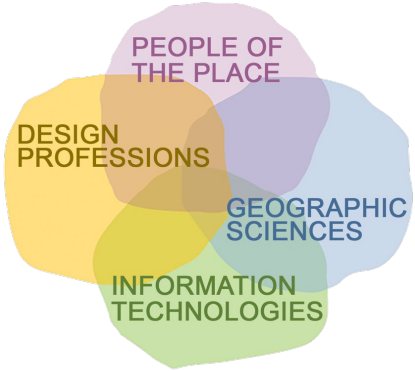
MN GreenStep Schools



Map of Interested schools, cities, and organizations
www.mngreenstepschools.org

D4CR Geodesign Process





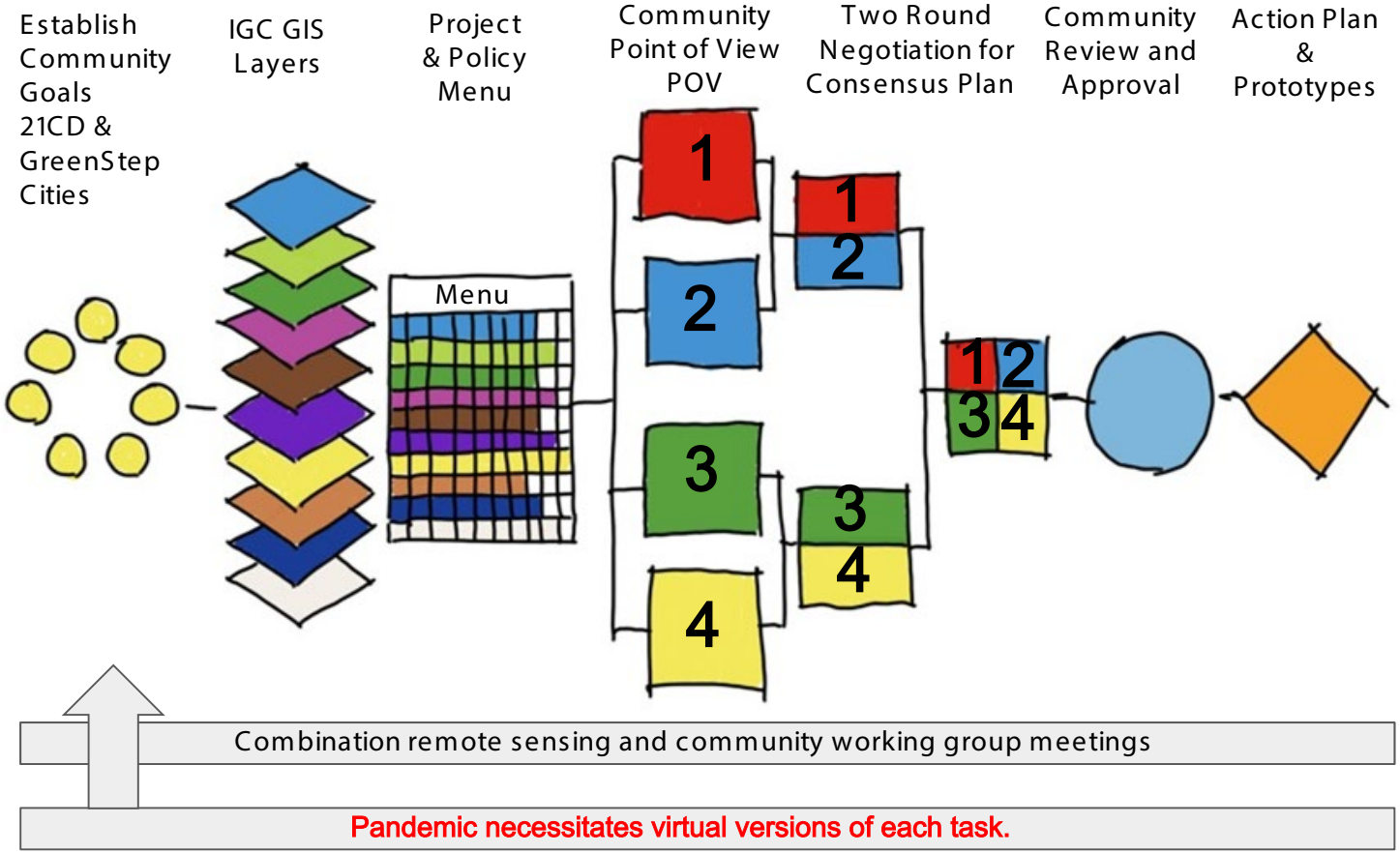
IGC INTERNATIONAL GEODESIGN COLLABORATION

Changing Geography by Design

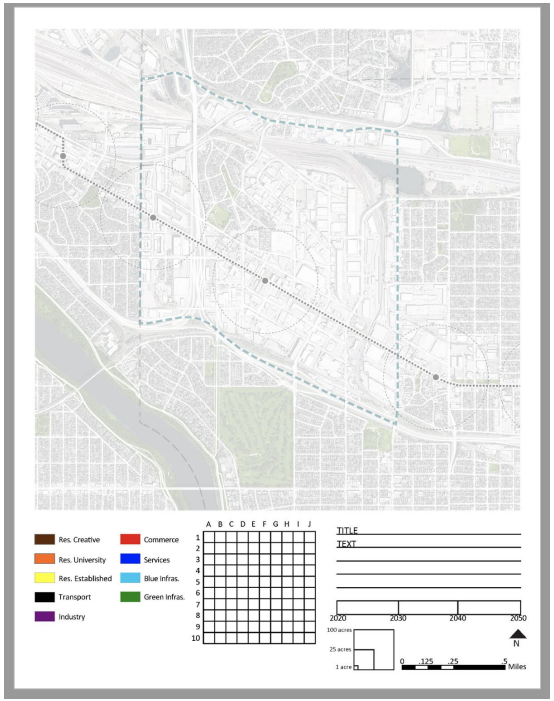
Water Infrastructure	RGB: 113 184 255	RGB: 175 215 255	Ocean, Rivers and Lakes
		RGB: 113 184 255	Water supply, treatment, recycling
Agriculture	RGB: 194 230 153	RGB: 194 230 153	Agriculture
		RGB: 120 198 121	Forestry
Green Infrastructure	RGB: 49 163 84	RGB: 49 163 84	Recreation
		RGB: 0 104 55	Conservation landscape
Energy Infrastructure	RGB: 205 50 155	RGB: 225 140 200	Energy production
		RGB: 205 50 155	Energy distribution
Transport Infrastructure	RGB: 90 90 90	RGB: 90 90 90	Rail, airport, ship port transport
		RGB: 55 55 55	Road transport
Industry and Commerce	RGB: 116 45 159	RGB: 175 111 215	Industry – light, and Commerce
		RGB: 116 45 159	Industry - heavy
Institutional	RGB: 36 73 110	RGB: 255 230 153	Residential - Rural
		RGB: 255 204 0	Residential - Low Density
Residential, mixed	RGB: 218 128 28	RGB: 218 128 28	Residential - Medium Density, Mixed
		RGB: 132 60 12	Residential - High Density, Mixed
		RGB: 59 119 179	Institutional - Government, Military
		RGB: 36 73 110	Institutional - Education, Healthcare
		RGB: 235 130 125	Commercial, Offices
		RGB: 222 45 38	Commercial, Shopping
		RGB: 0 166 162	Tourism, Cultural
		RGB: 0 102 102	Tourism, Historical
		RGB: 225 182 113	Special landscape e.g. Desert,
		RGB: 115 155 50	Special landscape e.g. Mangrove
Two flexible systems: Choose additional systems from column at right or specify new system and add RGD color code	RGB:		
	RGB:		

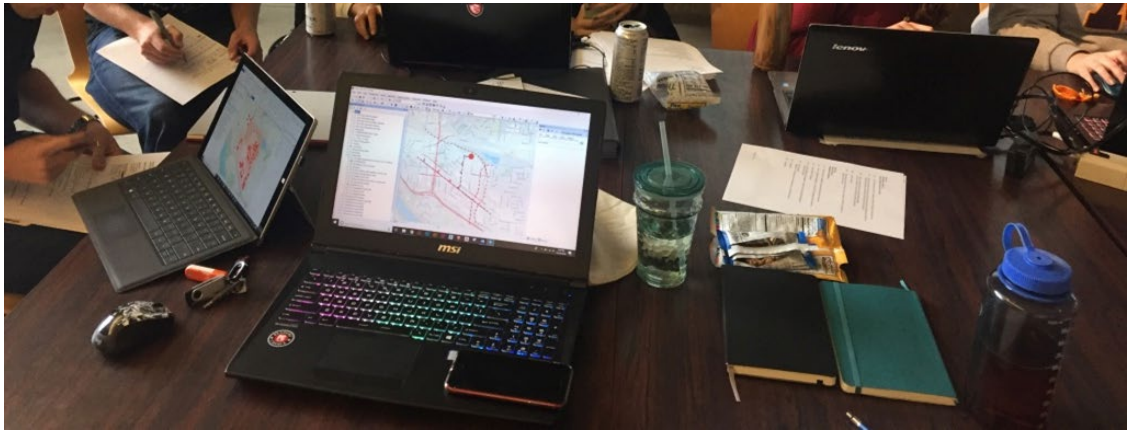
geodesigncollab@gmail.com
http://www.igc-geodesign.org

D4CR Geodesign Process

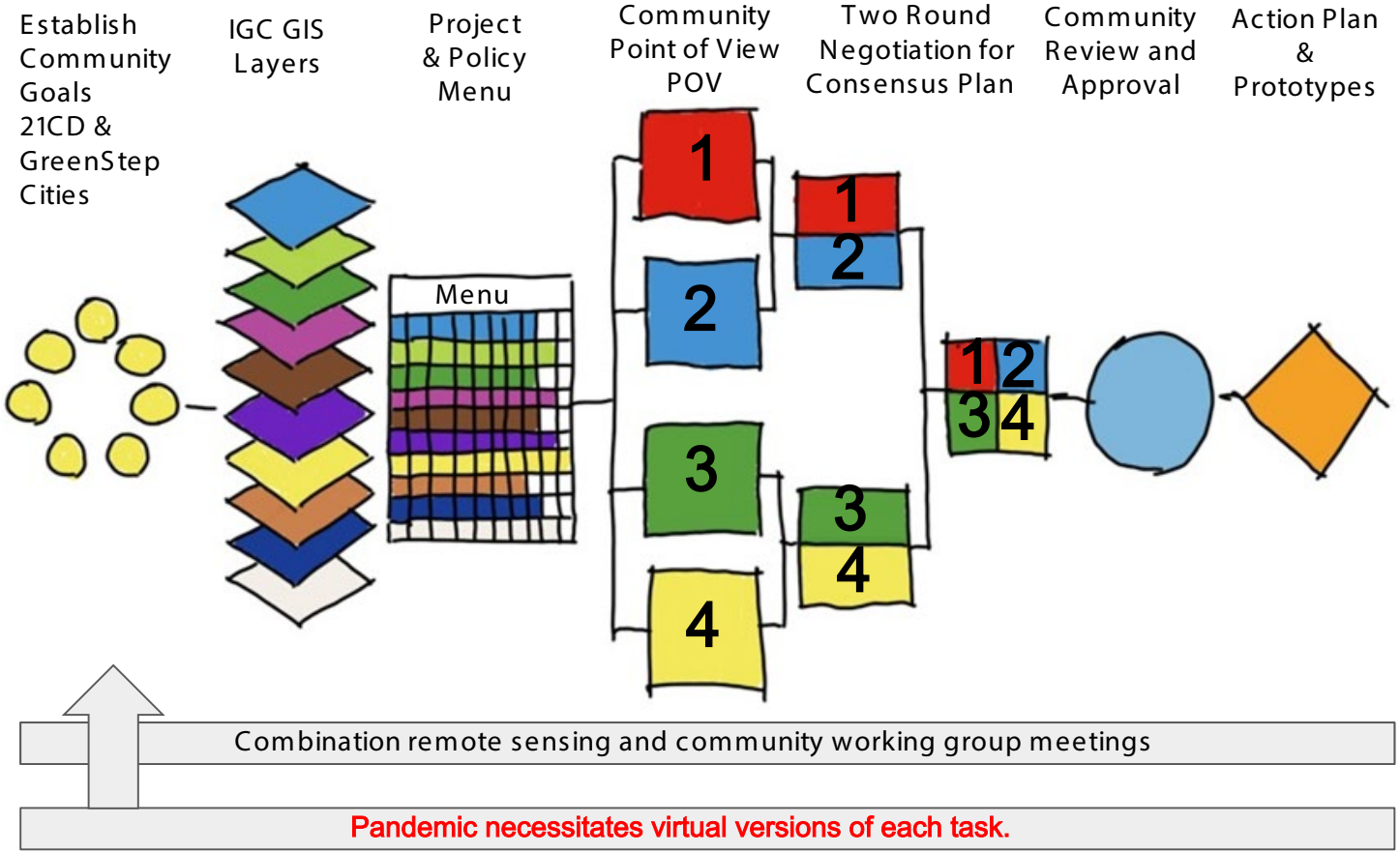


Menu items


Res. Creative
Res. University
Res. Established
Transport
Industry
Commerce
Services
Blue Infras.
Green Infras.
A B C D E F G H I J
1 2 3 4 5 6 7 8 9 10
TITLE
TEXT
2020 2030 2040 2050
100 acres
25 acres
1 acre
N
0 12.5 25 5
Miles

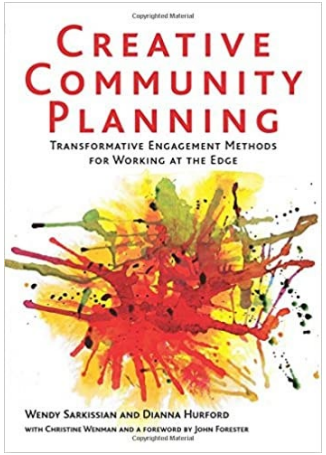


D4CR Geodesign Process



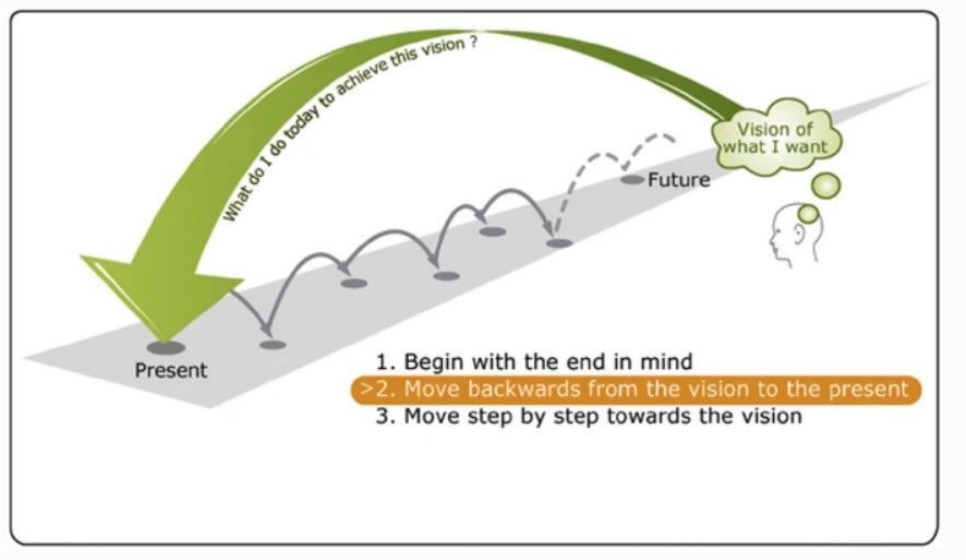
Creativity, Design, Art, Games, Play

Eg. Backcasting - imagining a desired future, without yet knowing how to get there.



“Heartstorming: Putting the Vision Back into Visioning”

Sarkissian, Wendy, et al. Creative Community Planning: Transformative Engagement Methods for Working at the Edge. Earthscan, 2010.



The backcasting process from the Natural Step

Bibri, S.E., Krogstie, J. A scholarly backcasting approach to a novel model for smart sustainable cities of the future: strategic problem orientation. *City Territ Archit* **6,** 3 (2019). https://doi.org/10.1186/s40410-019-0102-3

Probable financial limitations.

Probable limit due to policy restrictions.

Thank you

Contact:

Tim Griffin FAIA, LEED AP, Project Manager and Geodesign Lead
griff282@umn.edu

Jonee Kulman Brigham, AIA, LEED AP O+M, Sustainable Design Lead
kulma002@umn.edu

Website: https://sites.google.com/umn.edu/d4cr

Questions?

Experiences?

Interest Survey

Use our survey to express your interest in D4CR, whether you are a city that wants to explore participation, want to provide input, partner, or fund the project, or if you'd just like to connect and be on our mailing list. See who else has signed up on the map below.

Use the QR code or this link: https://arcg.is/1aCLav