1. PROJECT AREA DESCRIPTION AND PLANS FOR REVITALIZATION

1.a. Target Area and Brownfields

1.a.i. Overview of Brownfield Challenges and Description of Target Area: Duluth, Minnesota is a sprawling city with aging infrastructure coupled with steep hillsides, bedrock, and underground streams, an overall challenging topography for development. The City also has a great deal of undeveloped land in the form of City parks that are not taxable, and for these reasons the City struggles with adequate tax revenue to maintain services. There is also a housing crisis and aging housing stock - more than 50% of all housing in Duluth is over 50 years old. Remediation of the Irving Infill site presents an opportunity to increase housing supply and tax base. The Irving Infill site is in the Irving neighborhood, in Census Tract 158, which is a Qualified Census Tract per the Department of Housing and Urban Development based on the low incomes of residents.

1.a.ii. Description of proposed brownfield site: The Irving Infill site is not currently in use and has not been developed previously even though the surrounding neighborhood contains a mix of residential and commercial uses and has since the late 1800s. Phase I and Phase II environmental site assessments were completed at the Site in May 2019. There is evidence of dumping on the site, including debris material such as concrete, glass, ceramics, metal, linoleum, and brick. Soil samples indicated that concentrations of polynuclear aromatic hydrocarbons (PAHs), specifically benzo(a)pyrene equivalent, and arsenic were greater than the Minnesota Pollution Control Agency's (MPCA) soil reference value (SRV) for residential land use in several locations.

1.b. Revitalization of Target Area

1.b.i Reuse Strategy and Alignment with Revitalization Plans: Green New Deal Housing's plan for reuse is to build two net zero energy (NZE) single family homes on these lots. NZE homes produce as much energy, via solar panels on the roofs, as they use in the course of a year. Homes will be workforce or affordable, depending on gap funding that Green New Deal Housing (GNDH) can attain. Infill lots can take advantage of existing City infrastructure, reducing the cost to build compared to undeveloped areas. The Irving Infill site is flat and located in a residential area, making it ideal for housing development. It also has excellent solar exposure.

Our plan aligns with the City of Duluth's Comprehensive Land Use Plan: *Imagine Duluth 2035*, specifically Principle 5: promote reinvestment in neighborhoods, Principle 13: Develop a healthy community, and Principle 14: integrate fairness into the fabric of the community. The plan further details the City's priorities, some of which align with our project, including energy efficiency and conservation, and renewable energy to reduce climate emissions and drive community resiliency. Additionally, Duluth prioritizes housing development on infill lots. Our project supports all of these as well as area workforce priorities described below.

¹ City of Duluth. (n.d.). 2020-2024 Consolidated Plan Housing Market Analysis. City of Duluth. Retrieved October 15, 2024, from https://duluthmn.gov/media/10307/2020-2024-consolidated-plan-housing-market-analysis.pdf

Green New Deal Housing expects to use at least one of the houses built on the Irving Infill site as a training site for YouthBuild, a youth construction training program expected to launch in Duluth in 2026. This program aligns with the 2024-2027 Northeast Minnesota Strategic Workforce Plan, an area that includes Duluth. This plan aims to support programs that decrease disparities among BIPOC communities, which our reuse plan will do by training and providing industry-recognized credentials to people traditionally excluded from construction careers: women and people of color. Additionally, one of the six targeted industry sectors is construction.

GNDH has engaged the public in program development since our inception in 2019. We established a steering committee of individuals with low incomes and from communities of color as we developed all programs, including our housing program. Additionally, specific to this project, we made our draft proposal available publicly starting on October 31, 2024 and held a community input session on November 7, 2024.

1.b.ii. Outcomes and Benefits of Reuse Strategy: Remediation of the Irving Infill site will facilitate equitable housing development. Homes will be either affordable or workforce housing per the HUD definitions, depending upon available gap funds. This will address some of the challenges described previously, including inadequate supply of housing, increasing the tax base, revitalization of a low-income neighborhood, and growing community resilience with renewable energy, all while training opportunity youth in construction careers.

This project will facilitate renewable energy from solar, and will incorporate energy efficiency measures. We will use air source heat pumps for efficient heating and cooling, deep wall construction, air sealing, and triple pane windows, among other efficiency measures. NZE construction not only reduces climate emissions for the lifetime of the structure, but also increases community resilience in terms of energy production, prevention of a power outage in the home, and prevention of frozen plumbing during an extended power outage such as during a blizzard - a real concern in northern Minnesota winters. These homes are so well insulated and efficiently heated that the interior will not get below freezing in sub-zero temperatures during a power outage even if electricity generation is minimal, such as during extended cloudy or snowy periods. Additionally, homeownership promotes resilience and stability for individuals and families, both by investing in an asset and by stabilizing living costs. This project improves local climate and individual resilience through local energy generation and homeownership.

1.c.Strategy for Leveraging Resources

1.c.i. Resources needed for site characterization: We do not expect to need additional resources for site characterization since we have completed Phase I and Phase II assessments and have a Response Action Plan. However, if we do need additional resources, we will seek support and guidance from the City of Duluth, which procured the initial assessment, and/or the Minnesota Pollution Control Agency.

c.ii. Resources needed for site remediation: The EPA funding requested in this application will be enough to complete the remediation of the Irving site.

c.iii. Resources Needed for Site Reuse: Funds for subsequent reuse will be applied for in summer 2025, aiming to raise all needed funds by spring 2026. Our proposed sources for reuse include:

Name of Resource	Resource Use	Status	Additional Details
Minnesota Housing Finance Agency Impact Fund	Reuse	Unsecured	This is a grant for gap funding. Will apply in July 2025.
Duluth LISC	Reuse	Unsecured	This is a loan. We may apply once we have established adequate gap funding.
City of Duluth Housing and Redevelopment Authority	Reuse	Unsecured	This is a loan. We may apply once we have established adequate gap funding.
Honnold Foundation/other private funding	Reuse	Unsecured	This is a grant. We will apply for funds for the solar panels.

1.c.iv. Use of Existing Infrastructure:

The site is urban infill, so we will access City water and sewer. We are exploring making these connections during the remediation before the site is backfilled, reducing construction costs. There is no existing infrastructure on the site since it has never been developed.

2. COMMUNITY NEED AND ENGAGEMENT

2.a. Community Need

2.a.i. Community Need for Funding: According to Minnesota Compass,² Duluth has a higher rate of poverty (17.5%) than Minnesota overall (9.3%) and a higher poverty rate than the United States on average (11.5% per US Census). Duluth is a small city, and with this high rate of poverty there are challenges to establishing adequate local resources for remediation, such as the City's inadequate tax revenue stated previously. Additionally, the City procured the Site Assessments and Response Action Plan prior to GNDH's acquisition of the Site.

The City of Duluth offers a Brownfield Revolving Loan Fund which would pay for 80% of the cost of the project, leaving the remaining 20% for GNDH to raise. There are several local foundations with nominal interest in environmental work that may support this if requested, but if so this would likely be at the expense of their support of GNDH's other areas. EPA funding is

² Wilder Research. (n.d.). Duluth, poverty status | MN Compass. Minnesota Compass. Retrieved October 15, 2024, from https://www.mncompass.org/profiles/city/duluth/poverty

critical for remediation so that GNDH can raise the gap funds and operating costs that are needed for reuse of the site following remediation while maintaining other programming.

2.a.ii. Threats to Sensitive Populations

2.a.ii.(1) Health or Welfare of Sensitive Populations: The Irving Infill Site, part of the Western corridor neighborhoods of Duluth, is adversely and disproportionately affected by several environmental or human health harms and risks according to EPA's EJScreen. Neighborhood data from this tool follows: Superfund proximity - 98 percentile; RMP facility proximity - 93 percentile; Wastewater discharge - 67 percentile; Unemployment rate - 59 percentile; Housing burden - 70 percentile; Under age 5 - 92 percentile. This is a neighborhood with great proximity to environmental harms and risks, and data also indicates socioeconomic challenges of residents.

According to the EJScreen Tool, 16% of the population of this area consists of people of color, which is higher than the overall population of Duluth. According to MPR News: "Almost two-thirds of Duluth homes built more than 75 years ago are in western Duluth. More than three-quarters of the city's Native and Black populations live on the west side. Two-thirds of people living in poverty live in western Duluth." Sensitive populations in the area, as defined by CERCLA, include minority and low-income communities, as well as pregnant women. The high proportion of children under age 5 indicates a high population of pregnant women. Further, children under age 5 are particularly vulnerable to lead paint exposure, which is typically present in older homes.

2.a.ii.(2) Greater Than Normal Incidence of Disease and Adverse Health Conditions: We do not have data on specific diseases and adverse health conditions, however these neighborhoods have a lower life expectancy than other areas of Duluth. Average life expectancy in Duluth is 83.96 years, and in the 55807 zip code (where the Site is located), life expectancy is 74.5-76 years.⁴

2.a.ii.(3) Environmental Justice

2.a.ii.(3)(a) Identification of Environmental Justice Issues: According to the Climate and Economic Justice Screening Tool (CEJST), the Irving Infill site is not in a Justice40 community though it is within blocks of a census tract that is a Justice40 community. Per CEJST, Census Tract 158 has historically high barriers to accessing home loans, is in the 70 percentile for home costs, in the 94 percentile for lack of indoor plumbing, and in the 87 percentile for lead paint - all of this tracks with older housing stock and lack of investment. This neighborhood is also in the 71 percentile for poverty and 69 percentile for unemployment. These are all indicators of economic challenges and inequitable development. Western portions of Duluth, such as the

³ Kraker, D. (2022, March 28). In Duluth, schools struggle to bridge city's long-standing east-west divide. *MPR News*. https://www.mprnews.org/story/2022/03/28/in-duluth-schools-struggle-to-bridge-citys-long-standing-eastwest-divide

⁴ Bridging Health Duluth. (n.d.). 2020–2022 Community Health Needs Assessment - Duluth. St. Luke's. Retrieved October 15, 2024, from https://www.slhduluth.com/documents/CHNA.CHIP-FY2020-2022-Duluth.pdf

Irving neighborhood where our site is located, were redlined neighborhoods due to industrial pollutants and minority populations living there, and these neighborhoods still hold the largest proportion of BIPOC residents in Duluth.⁵

2.a.ii.(3)(b) Advancing Environmental Justice: This grant will advance environmental justice by cleaning up contaminated land in a low-income urban area that has the challenges described above, and redeveloping it with affordable or workforce housing that income-qualified households will purchase. This will not cause displacement since the lot has never been developed and the housing will be sold only to income-qualified households. It will also engage opportunity youth in the reuse strategy, supporting their development of high demand skills.

2.b. Community Engagement: see table below for i. Project involvement and ii. Project roles.

Name of entity	Entity's mission	Point of contact	Specific involvement in project or assistance provided		
City of Duluth Planning & Development Division	Planning & Development Division supports positive growth in Duluth, from the visioning stages of long-range comprehensive planning to day-to-day zoning review.	Ben VanTassel Interim Director	Procured Phase I and Phase II Environmental Site Assessments and Response Action Plan		
Evergreen Senior Center	Provides senior programming.	City of Duluth: Parks & Rec	Provide meeting space for public input		
West Duluth Business Club	Advocates for West Duluth businesses on critical issues affecting both the local area and broader city. Dedicated to proactively providing residents with pertinent information to support your business interests.	Russ Salgy President	Communicate with members of West Duluth Business Club regarding development progress. Provide opportunities for business leaders to engage with GNDH staff regarding projects.		
Vita Nova	To provide dignified housing and supportive services to people who are formerly incarcerated.	Stacy Radosevich Co-Chair of the Board	Transitional housing program, collaborating with GNDH to offer home ownership as an option to participants		

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⁵ City of Duluth. (n.d.). 2020-2024 Consolidated Plan Housing Market Analysis. City of Duluth. Retrieved October 15, 2024, from https://duluthmn.gov/media/10307/2020-2024-consolidated-plan-housing-market-analysis.pdf

Valley Youth Center	To provide opportunities that encourage kids to grow and build self-confidence.	Russ Salgy Agency Director	Youth serving agency working in neighborhood for decades. Provide support and referrals to low-income families seeking housing.
Divine Konnections	Transform the lives of underserved BIPOC youth & young adults by providing affordable housing and a strong circle of support, empowering them to take meaningful, intentional steps toward their full potential.	Deyona Kirk Executive Director	Transitional housing program, collaborating with GNDH to offer home ownership as an option to participants.
Neighborhood residents			Provide public comment

2.b.iii. Incorporating community input: We hosted a public input session at the Evergreen Senior Center near the Irving Infill site on November 7, 2024. Comments are included in our ABCA. We will hold ongoing meetings there that the community will be welcome to join as we report on progress. We will offer the community an opportunity to see the home designs, to be selected for the houses (if they are income qualified), and to provide input at every stage. We will also offer the immediate neighborhood a first look at the houses once complete.

3. TASK DESCRIPTIONS, COST ESTIMATES, AND MEASURING PROGRESS

3.a. Proposed Cleanup Plan: A Health and Safety Plan will be prepared to address known safety risks. The Irving Infill site will be excavated to 12' below grade. Excavated soil, which includes arsenic and polynuclear aromatic hydrocarbons, will be hauled and disposed of at a landfill. The site will be backfilled, seeded, and mulched. Bioroll will be installed to control erosion. An environmental technician will be on-site during excavation activities to evaluate and document excavated soil conditions, observations, and screening results. A report describing activities will be completed and provided to the Minnesota Pollution Control Agency for review and approval.

3.b. Description of Tasks/Activities and Outputs

Task/Activity 1: Site Assessment and Remediation Planning					
<i>i. Project implementation:</i> Non-EPA-funded tasks/activities (already completed with support from City of Duluth) - Assess Irving Infill site readiness for housing development					
ii. Anticipated Project Schedule: completed					

iii. Task/Activity Lead: contracted qualified environmental professional (Bay West LLC)

iv. Outputs:

- Completed Phase I Environmental Site Assessment
- Completed Phase II Environmental Site Assessment
- Completed Response Action Plan
- Enrollment in Minnesota Pollution Control Agency's Voluntary Investigation and Cleanup Program

Task/Activity 2: Community Engagement

i. Project implementation

- EPA-funded tasks/activities: Engage local community in cleanup and reuse planning
- Non-EPA-funded tasks/activities: Engage local community in cleanup and reuse planning

ii. Anticipated Project Schedule:

- Announcement to community and draft application available October 31, 2024 (completed, non-EPA funded)
- Public meeting November 7, 2024 (completed, non-EPA funded)
- Engage community partners (completed, non-EPA funded)
- Additional public meetings to be held in spring/summer 2025 (EPA funded)

iii. Task/Activity Lead: Melissa Hellerud, GNDH Program Director

iv. Outputs/outcomes:

- Three community meetings held
- Public comments received and incorporated into grant application and reuse plan (aligns with *EPA 2022-2026 Strategic Plan* Goal 2, Objective 2.2)
- Community consent and support for remediation and reuse plan

Task/Activity 3: Site Remediation Preparation and Safety

i. Project implementation: EPA-funded tasks/activities:

- Prepare a Health and Safety Plan to address known safety risks and materials and circumstances addressed in the construction contingency plan
- Secure the excavation site
- Acquire required permits

ii. Anticipated Project Schedule: work to begin as soon as funding is secured

iii. Task/Activity Lead: contracted qualified environmental professional

iv. Outputs/outcomes: Irving Infill brownfield site will be ready to begin remediation work

Task/Activity 4: Site Cleanup

- *i. Project implementation:* EPA-funded tasks/activities:
 - Excavate areas of the site with elevated PAH contamination (approximately 25'X30' section consisting of approximately 170 cubic yards)
 - Remove contaminated soil to an approved landfill
 - Collect excavation base and sidewall soil samples to characterize the soil for disposal.
 Based on samples, complete additional excavation as needed
- ii. Anticipated Project Schedule: work to begin in spring/summer 2025 once ground thaws
- iii. Task/Activity Lead: contracted qualified environmental professional

iv. Outputs/outcomes:

- Exposure to hazardous substances from Irving Infill brownfield site will be minimized
- Irving Infill brownfields site will be cleaned up (aligns with *EPA 2022-2026 Strategic Plan* Goal 6, Objective 6.1)

3.c. Cost estimates

Pudgat Catagorias	Project Tasks							
Budget Categories	Task 2		Task 3		Task 4		TOTAL	
Personnel	\$	5,769.00	\$	769.20	\$	769.20	\$	7,307.40
Fringe Benefits	\$	1,153.80	\$	153.84	\$	153.84	\$	1,461.48
Travel	\$	140.03	\$	20.10	\$	20.10	\$	180.23
Equipment							\$	-
Supplies	\$	500.00					\$	500.00
Contractual	\$	975.00	\$ 6	5,925.00	\$	20,668.40	\$	28,568.40
Construction					\$	245,558.00	\$ 2	245,558.00
Other (print materials)	\$	250.00					\$	250.00
TOTAL DIRECT	\$	8,787.80	\$ 7	7,868.04	\$	267,169.44	\$ 2	283,825.51
INDIRECT	\$	439.39	\$	393.40	\$	13,358.47	\$	14,191.28
TOTAL BUDGET	\$	9,227.19	\$ 8	8,261.44	\$	280,527.91	\$ 2	298,016.79

Task 2: Community Engagement

- Personnel: 150 hours of staff wages of \$38.46/hour to plan, implement, collect feedback, evaluate community engagement sessions; complete required performance reporting
- Fringe Benefits: 20% of Personnel costs of \$5,769
- Travel: 209 miles at .67/mile, staff mileage reimbursement for outreach activities
- Supplies: snacks, beverages, writing utensils, other supplies for community meetings

- Contractual: 5 hours of consultant at \$110/hour to support community engagement events and evaluation; 5 hours of contracted bookkeeper at \$85/hour to complete required financial reporting
- Other (print materials): flyers, printed plans, other materials for community outreach Task 3: Site Remediation Preparation and Safety
 - 20 hours of staff wages of \$38.46/hour to engage contractor(s) and coordinate work; and complete required performance reporting
 - Fringe Benefits: 20% of Personnel costs of \$769.20
 - Travel: 30 miles at .67/mile, staff mileage reimbursement for site visits and related travel
 - Contractual: qualified environmental professional to prepare Health and Safety Plan, secure site, and acquire permits (\$6,500 based on estimate from contractor); 5 hours of contracted bookkeeper at \$85/hour to complete required financial reporting

Task 4: Site Cleanup

- 20 hours of staff wages of \$38.46/hour to engage contractor(s) and coordinate work; and complete required performance reporting
- Fringe Benefits: 20% of Personnel costs of \$769.20
- Travel: 30 miles at .67/mile, staff mileage reimbursement for site visits and related travel
- Contractual: qualified environmental professional to provide on-site supervision of project and soil sampling after excavation (\$20,243.40 based on contractor estimate); 5 hours of contracted bookkeeper at \$85/hour to complete required financial reporting
- Construction: excavation and landfilling of contaminated soil (\$245,558 based on estimate from contractor)

3.d Plan to Measure and Evaluate Environmental Progress and Results

A qualified environmental professional will be contracted to complete final soil borings and testing for contaminants. This will determine if the site was cleaned and is safe for residential use. We will track and retain information on community input sessions throughout the project period, and we will survey participants on their experience and if they felt that their input and concerns were adequately addressed and incorporated into our plan.

4. PROGRAMMATIC CAPABILITY AND PAST PERFORMANCE

4.a. Programmatic capability

4.a.i. and 4.a.ii. Organizational Structure and Key Staff: Program Director Melissa Hellerud, Green New Deal Housing's only current full-time staff, will be responsible to manage this project. We will contract a qualified environmental professional as well as construction company/ies to complete the remediation work. Melissa will complete the community engagement described in Task 2 with support from a local nonprofit consultant. Financial management and reporting will be managed by GNDH's contracted bookkeeper, Christine Ley of Evergreen Consulting.

Melissa Hellerud is a dedicated nonprofit program leader with over 15 years of experience. Melissa has led initiatives that prioritize inclusivity and support for underrepresented groups, such as women, people of color, and young people. Her life and work experience have provided her with invaluable insights into the challenges faced by these populations, and she is committed to tailoring programs to address their unique needs. Melissa has a Bachelor of Arts & Sciences in Sociology from the University of Wisconsin Superior. Notable past experiences include Workforce Programs Director at Community Action Duluth, Director of Internal Programs at YWCA Duluth, and FreshStart Program at Community Action of Rock & Walworth Counties.

4.a.iii. Acquiring Additional Resources: We have procured estimates from several companies that are qualified to complete various elements of the site remediation per the Response Action Plan created by Bay West LLC. Estimates were used for planning and budgeting, and contractors have not been selected yet. Our reuse project will incorporate the YouthBuild program described previously. YouthBuild promotes strong labor practices and links members of the community to employment opportunities in redevelopment in a meaningful and equitable way by engaging opportunity youth in the project. The contractors we will work with to remediate the site will be local union contractors as is possible.

4.b.i. Not applicable.

4.b.ii. Has not Received an EPA Brownfields Grant but has Received Other Federal or Non-Federal Assistance Agreements: Green New Deal Housing is a young organization and has received only one government grant, but has received grants from several corporations and foundations. Our 2022 Community Development Block Grant (HUD) is described below.

4.b.(1) Purpose and Accomplishments: this grant was \$46,000 for the Green Workforce Development program, which was used to develop curriculum and provide green construction training to low- to moderate-income individuals.

4.b.(2) Compliance with Grant Requirements: we met quarterly reporting deadlines, provided financial documentation, met required deliverables, and fully expended the grant during the contract term. Some challenges were discovered after a site visit in which City staff determined that we did not have the required demographic information on file for participants. We resolved this by reaching out to participants and collecting this information later, reporting it back to the City, and then closing out the grant. Notably, we did not have any employees when we were managing this grant. Now we do have one full-time employee who has experience managing local, state, and federal grants and contracts, as well as a contracted bookkeeper with significant nonprofit and grants management experience.