(1.) GREEN ROOFS Film



What happens when we move land and plants to the roof?

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Green roofs create oases in cities where green spaces are often lacking, not only for us, but for much needed pollinators like bees, ladybugs, butterflies and birds.

Replacing hot, black roofs with soil and plants helps keep buildings cooler in summer. Green roofs also help manage stormwater runoff as they catch rainwater and release it slowly into a city's drainage system.

Watch Green Roofs and other environmental/climate change films on <u>turnaround-films.com</u>

Why Build a Green Roof?

Reduce Stormwater Runoff

- Reduce runoff by retaining and delaying. Extensive green roofs can retain an average of 75% of annual rainwater and delaying stormwater runoff by 3 to 4 hours compared to a traditional roof.
- Ease the strain on overtaxed stormwater management systems and sewers, saving stormwater management costs for cities.
- Help prevent combined sewer overflow (CSO) events where stormwater floods sewer systems and sends a combination of stormwater and raw sewage into watersheds. Less stormwater runoff = fewer CSO events.

Increase Roof Longevity

- **Protect waterproof roof membranes** from degrading UV light and fluctuating temperatures.
- Increase the life of waterproof membranes by 2-3x the standard lifespan of an uncovered waterproof membrane, representing long-term capital expenditure savings.
- Reduce material waste from re-roofing.

Make Buildings More Energy Efficient

- **Provide insulation** that reduce cooling costs.
- **Absorb direct solar energy** in the summer, keeping buildings cooler and air conditioning use lower.
- Energy conservation reduces the carbon footprint of a building.

Creates Additional Useable Space

- Increase property values and functional space when used as amenity spaces.
- **Convert unused space into healing, verdant sanctuaries** for hospitals or healthcare facilities.
- Grow vegetables and herbs for productive rooftop farms.

Reduce the Urban Heat Island Effect

 Reduce urban heat island effect by dramatically lowering rooftop temperatures, keeping surrounding air temperatures cooler. Traditional impervious roofs absorb solar radiation, leading to higher average temperatures in cities compared to suburban and rural areas.

Create Habitats

- **Create high rise habitats** for essential pollinators, migratory birds, native plant species, and more.
- **Restore ecosystems** that have been displaced by city infrastructure.
- Recover building footprints from concrete and steel dead zones to vibrant, productive space.

Improve Air Quality

• Absorb carbon dioxide, heavy metals and other pollutants, while releasing oxygen and cleaner air into the atmosphere.

Courtesy of <u>Recover Green Roofs</u>